Mapping the Learning Content Ecosystem

An inquiry into the disruption, evolution, and transformation of the learning content ecosystem

Richard N. Katz and Ronald W. Yanosky, Ph.D.

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ABSTRACT

Marshall McLuhan observed that "the past dissolves before the future resolves." Digital technologies are dissolving traditional landscapes. This disruption is being felt throughout the learning content ecosystem. The essential role played by the college store is changing. While the future landscape and ecosystem are out of focus, college store leaders must interpret the outlines, anticipate changing conditions, and take risks if they are to serve their students, faculty, and institutions effectively.

Richard N. Katz

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Contact education@nacs.org with questions about this white paper.

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PREFACE

Purpose of this Paper

This white paper is intended to:

- provide a high-level overview of the "learning content ecosystem;"
- describe the elements or "players" in this ecosystem;
- identify the dominant competitive forces that are influencing or shaping both the individual elements and the ecosystem as a whole;
- construct possible planning scenarios that might extend from an analysis of trends, forces, and players; and
- identify actions for college stores and their host universities to consider as they adapt to changing conditions.

Sponsorship and Leadership of this Project

This white paper is one output of a project undertaken by the National Association of College Stores (NACS). NACS, through its various member services, serves the multi-billion dollar campus retail industry. Under the direction of NACS Vice President Tony Ellis, CAE, NACS' OnCampus Research® and Publications teams worked with Richard N. Katz & Associates to engage in primary and secondary research spanning six months to culminate in this white paper. The NACS Foundation generously funded this effort in the belief that the landscape of higher education course content creation, manufacture, distribution, aggregation, support, and consumption is undergoing the equivalent of "continental drift." NACS Foundation Board members reasoned that the competitive positions of the academic publishers, wholesalers, librarians, instructional designers and technologists, retailers, tutors, counselors, coaches, testing centers, faculty members, students, and colleges and universities themselves were—as a consequence of this drift—undergoing profound change. These board members also reasoned that the literature surrounding these dynamics is large, complex, volatile, and probably highly politicized. Nearly every week an author will proclaim the death of the university, the bookstore, the publishers, or someone else while another author announces, "I'm not dead, yet!" It was concluded that the NACS membership needed a well-researched and impartial description of the changes unfolding. Such a description would make it possible for busy operators to re-set priorities and make adaptive investments and changes with a higher degree of confidence.

Ecosystems

An ecosystem is a useful term borrowed from environmental biology to describe a system, or a group of interconnected elements, formed by the interaction of a community of organisms with their environment. This potent term was borrowed in the manufacturing context to describe the interplay between automakers and the raw materials and parts suppliers that collectively comprise the auto industry. Today, the term is used on a regular basis to describe the complex and inter-connected networks that comprise Silicon Valley and its counterparts: infrastructure makers, software engineers, systems integrators, search engine providers, and others. And of course, college stores are an element of a distinguished and long-lived ecosystem that includes students (as consumers), faculty members (as academic content creators and recommenders), publishers, distributors, academic librarians, and others. For our purposes, the *learning content ecosystem* includes college- and university-level:

- Academic enterprises (colleges and universities) that currently unify the ecosystem
- Content creators
- Content manufacturers (publishers)
- Content distributors (including academic libraries)
- Content retailers (campus stores and others)
- Content consumers (both faculty recommenders and student users)
- Learning and success services

Student Success and the Learning Content Ecosystem

If there are core forces that unify the educational landscape and ecosystem, surely they must include: (1) the decentralization and independence of U.S. higher education; and (2) the hegemony of the faculty in matters related to the content of instruction. Recently, disturbances in these forces have been felt. In particular, as the importance of *intellectual capital* has risen, so has the importance of postsecondary education. U.S. parents, policy makers, legislators, regulators, and trustees are responding to higher education's rising costs and low rates of completion with demands for closer oversight, tighter controls, greater standardization, and explicit linkages between higher education outcomes and the competencies needed in the modern work force. Those leading the growing *movement for student success* correctly observe that student persistence, retention, and graduation depend on more than willing students, effective instructors, and sound course materials. For this reason, this white paper also includes reference to the emerging *student learning services* market. This market—in ecological terms—is like the arrival of a species in our competitive mix. The emergence of this market may even herald the formation of a new group of islands and a fundamental change in the landscape of higher learning itself.

Disruption

The transformation of a competitive landscape and its ecosystem is a rare event. Evolutionary biologists and business strategists agree that adaptive change is characterized by long periods of incremental change punctuated by infrequent mutations and transformations. In commerce, the invention of speech, writing, and the printing press shocked or disrupted the ecosystem. But it took hundreds, or even thousands of years for these shocks to be refined, assimilated, and diffused into widespread practice. These periodic shocks and their assimilation re-shape our landscape fundamentally. In the West, while the introduction of writing reduced the influence of the Socratic dialog, it nurtured the library, enabled the spread of Catholicism, and created the conditions needed for establishing the first great universities. The printing press, in turn, reduced the need for, and stature of, scriptorium monks, while fostering literacy and birthing the publishing and bookselling industries. Widespread literacy, of course, created the conditions for the Enlightenment, the Industrial Revolution, and much of what we have come to know as modern life.

Today, we live and work in another time of frame-breaking, disruptive change. While many forces are moving the continents beneath our feet, none is as potent as the digital revolution. Just as the printing press wrested control of the printed word from the Church and ruling elites, computers and networks—and their ecosystems—have made billions of people printers, typographers, distributors, collectors, and consumers of written content. And just as the printing press weakened old institutions and powers and created conditions for the emergence of new ones (Protestant churches, democracies, trade unions, news syndicates), digital technologies and digital content are disrupting all industries and firms whose business models hinge on the control of some aspect of the flow of information content. And we are only in the sixth decade of this transformation!

In 2013, the number of digital books purchased surpassed the number of printed books for the first time. In that same year, Google's $60 billion in ad revenues surpassed the total ad revenues of either all magazines or all newspapers. As of 2014, 87.5% of the U.S. population had Internet access (Internet World Stats). Of these, 166 million watched at least one video on a computer—most likely on YouTube and Netflix. In that year, 7.6 million U.S. households had "cut the cord," forgoing cable in favor of streamed content.[1] By 2015, 15% of all U.S. households have ditched their cable television service (Baird) and U.S. Millennials are watching 40 minutes less "traditional" television daily than they were even two years ago (*Business Intelligence*). Also in 2015, Internet penetration globally will reach 50 out of every 100 people (Forrester) and $77 billion will be spent on information security alone (Gartner). By 2017, online advertising is likely to match spending on TV advertising (PwC). And the next great turn of the digital screw may be the most disruptive of all. The Internet of Things (IoT) promises to imbed intelligence and communications capabilities in everything. By 2020, it is expected that 100 million cars will have their own Internet connections (Telefonica, GSMA, HIS Automotive, and BI Intelligence). It is safe to imagine that in the near future, collegiate teaching and learning will take place everywhere.

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[1] Experian. Available at: http://press.experian.com/United-States/Press-Release/cord-cutters-grew-by-44-pe rcent-in-the-past-four-years-with-7-6-million-households.aspx.

Evolution, Transformation, and Extinction

Technologies and innovations that spread information and capabilities widely often empower individuals while dis-empowering the institutions that pre-date them. At the heart of the college or university operating model is the belief that knowledge and know-how are scarce and must be aggregated, protected, and rationed. It is easy to understand why crowdsourcing, e-commerce hubs, pay walls, social media, mobile payment systems, and other changes in technology and practice that empower the individual also challenge the institution and its store. For example, what happens to retailers when student commerce hubs and mobile payment systems make it possible for every consumer to become a merchant? What happens when transfer of credits becomes the expected norm and comparable classes (at a lower price) are only a click away? These are only two scenarios to illustrate—in a world of digital learning content, super star faculty, massive open online courses (MOOCs), third-party tutors, testers, and credentialers—how hard it has become for institutions and campus stores to plan for the future. From their inception, a key competitive advantage enjoyed by any college or university—and its college store—was geographic. Most institutions served students in their immediate community, city, region, or state. The college store—typically located on campus—has benefited too from local access and the goodwill that stems from affiliation with *alma mater*. In today's world, "local" increasingly means on your desktop, in your backpack, or in your pocket. Digital technologies make it possible for educators or merchants on the network to trump the geographic advantages long held by colleges and their stores. Location—or even "on-ground-ness"—is no longer a sustainable basis for competitive advantage.

> Technologies and innovations that spread information and capabilities widely often empower individuals while dis-empowering the institutions that pre-date them.

Our ability to see the past dissolve—when combined with our inability to put the future into sharp focus—can lead to hyperbole and fear mongering. After all, we did read that the *NY Times* was forced to sell its headquarters and that Amazon's Jeff Bezos really did buy the *Washington Post*—personally. It is a uniquely tricky time to run an academic publishing house, a campus store, a university library, or a college. This paper does not presume to provide clear answers for these profoundly challenging questions. It does make the case for developing the capacity to:

- amass and use data,
- employ effective and sophisticated analysis, and
- organize for data-driven decisions and fast action.

History clearly favors the nimble. And students of evolutionary biology argue that sustainability depends in part on *the ability of individual organisms to respond morphologically, physiologically, or behaviorally to changes in the environment.*

Methods and Analytical Framework

This white paper is the first product of six months of research. Research consisted of:

- an extensive review of the secondary literature related to the learning content ecosystem;
- the development, deployment, and analysis of surveys of faculty, students, and college stores;
- the conducting of interviews and analyzing qualitative interview data to extend, elaborate, and add color to findings drawn from surveys and the secondary literature; and
- the integration and synthesis of information from the literature review, surveys, and interviews.

The underlying surveys employed were developed carefully and according to accepted academic practices. The statistics, too, were applied rigorously and tested for reliability and significance. The surveys, however, were deployed on the basis of the involvement of NACS volunteers. The volunteers represent NACS members from independent stores. The resulting sampling therefore does not meet the highest tests of randomization or stratification. We advise caution in interpreting any survey results we present. We do believe these results to be indicative and reliable, but they do have limits.

While our synthesis incorporates many analytical techniques, it draws heavily from the work of Professor Michael Porter of the Harvard Business School. Professor Porter's Five Forces Framework (Figure 1) provides a coherent, comprehensive, and convenient way for business practitioners to understand the structure and competitive dynamics of their industry.[2] So, in our analysis of each learning content ecosystem, those forces are assessed:

- Competitive rivalry within the industry
- Potential of new entrants into industry
- Power of suppliers
- Power of customers
- Threat of substitute products

Figure 1 – Porter's Five Forces Framework
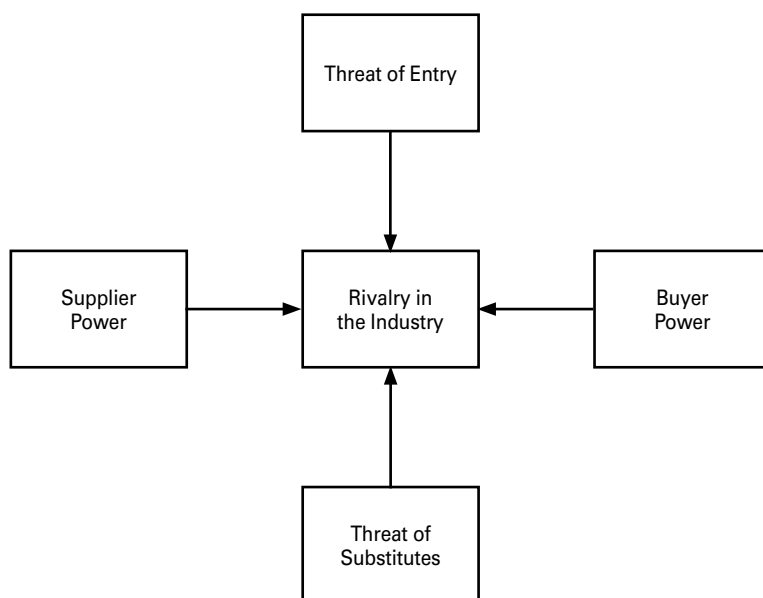
We hope that this white paper will be of practical value to college store leaders and professionals and to all those who depend on the higher education learning content ecosystem. To assist in consuming and sharing this volume, each chapter addressing an element of the learning content ecosystem will: (1) begin with a brief summary and key points; (2) reiterate and summarize the Five Forces analysis for the element, and (3) conclude with Critical Questions to consider and Further Readings. For those hard-pressed for time (at least for the initial reading), the Executive Summary follows and is a must-read for all campus professionals with ties to the learning content ecosystem.

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[2] Michael Porter, "How Competitive Forces Shape Strategy," in *Harvard Business Review*, March 1979.

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EXECUTIVE SUMMARY

In March 2015, University of California President Janet Napolitano declared in a *Washington Post* Op Ed piece that "higher education in this country is not in crisis." Instead, she argued, "Higher education is in motion… [it] evolves as knowledge expands, societies change, and new technologies are introduced."[3] President Napolitano argued against a growing "chorus of doom" that presumably includes Harvard Business School Professor Clayton Christensen who argues, "…higher education is just on the edge of the crevasse…they don't feel from the data that their world is going to collapse. But I think even five years from now these enterprises are going to be in real trouble."[4] This broad spectrum of opinion reminds us of Marshall McLuhan's simple but powerful observation that "the past dissolves before the future resolves."[5] Both President Napolitano and Professor Christensen observe a changing environment for America's colleges and universities. One is likely focused on a great and globally ranked research university system while the other likely sees Sweet Briar College as the canary in the coal mine on the predicted road to higher education's disruption.[6]

> "…the past dissolves before the future resolves."
>
> *- Marshall McLuhan, Author*
> The Gutenberg Galaxy: The Making of Typographic Man, *1962*

The National Association of College Stores (NACS) and the NACS Foundation invest strategically on a nearly continuous basis to help college store professionals and others sharpen their focus on the future. This white paper delivers on a January 2014 vision and funding proposal for "a comprehensive research project on course materials" that would extend the tracks left behind by NACS' 2010 project—*Defining the College Store of 2015*.[7] Two ideas were core to the development of this comprehensive research project:

- Digital technologies and content are disrupting and changing many content industries; and
- The college store is an integral and inter-dependent part of a much broader ecosystem. A sharp focus on the future of the college store requires an understanding of how all elements of this broader ecosystem are being disrupted and changed.

This research project—*Mapping the Learning Content Ecosystem*—was carried out over a 10-month timeframe. The effort entailed:

- A full review of the secondary literature, including the OnCampus Research® Student Watch™ reports;
- Interviews with 30 college and university executives, including provosts, librarians, business officers, CIOs, instructional technologists, auxiliary services heads, and others;
- Interviews with leading commercial and OER publishers and thought leaders from a variety of sectors;
- Quantitative surveys of faculty and college store professionals carried out in conjunction with NACS' OnCampus Research® unit;
- Preparation, analysis, and summarization of data, key findings, scenarios, conclusions, and recommendations for consideration; and
- Publication of this white paper and a variety of collateral materials.

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[3] Janet Napolitano, "Higher Education Isn't in Crisis", in *Washington Post*, March 12, 2015.
Available at: http://www.washingtonpost.com/opinions/higher-education-isnt-in-crisis/2015/03/12/f92b777e-bba2-11e4-bdfa-b8e8f594e6ee_story.html.
[4] Max Nisen, "Clay Christensen: Higher Education is on the Edge of the Crevasse," in *Business Insider,* February 13, 2013.
Available at: http://www.businessinsider.com/clay-christensen-higher-education-on-the-edge-2013-2.
[5] Marshall McLuhan, *The Gutenberg Galaxy: The Making of Typographic Man*. Toronto: University of Toronto Press, 1962.
[6] Nick Andersen and Susan Svrluga, "Sweet Briar College to Close Because of Financial Challenges," in *Washington Post*, March 3, 2015.
Available at: http://www.washingtonpost.com/news/grade-point/wp/2015/03/03/sweet-briar-college-to-close-because-of-financial-challenges/.
[7] NACS, "Defining the College Store of 2015," May 2010. Oberlin: National Association of College Stores.
Available upon request for non-members; in The Hub for NACS members.

The investigators for this study defined the learning content ecosystem to include academic:

1. Content creators (authors);
2. Content manufacturers (publishers);
3. Content distributors/wholesalers;
4. Content retailers;
5. Content users (faculty adopters/assigners, student consumers);
6. Learning services providers (tutoring, coaching, testing) at a newly forming digital edge of the ecosystem; and
7. Colleges and universities themselves.

Methodologically, this study's investigators employed:

- close reading techniques of the social sciences and history;
- descriptive and analytical statistics;
- standard interviewing and qualitative analysis; and
- competitive analysis using Professor Michael Porter's Five Forces Framework to evaluate each element of the learning content ecosystem.

Figure 2 – Porter's Five Forces Framework[8]

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                    │  Threat of Entry │
                    └──────────────────┘
                             │
                             ▼
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│   Supplier   │───▶│   Rivalry in     │◀───│    Buyer     │
│    Power     │    │   the Industry   │    │    Power     │
└──────────────┘    └──────────────────┘    └──────────────┘
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                    │    Threat of     │
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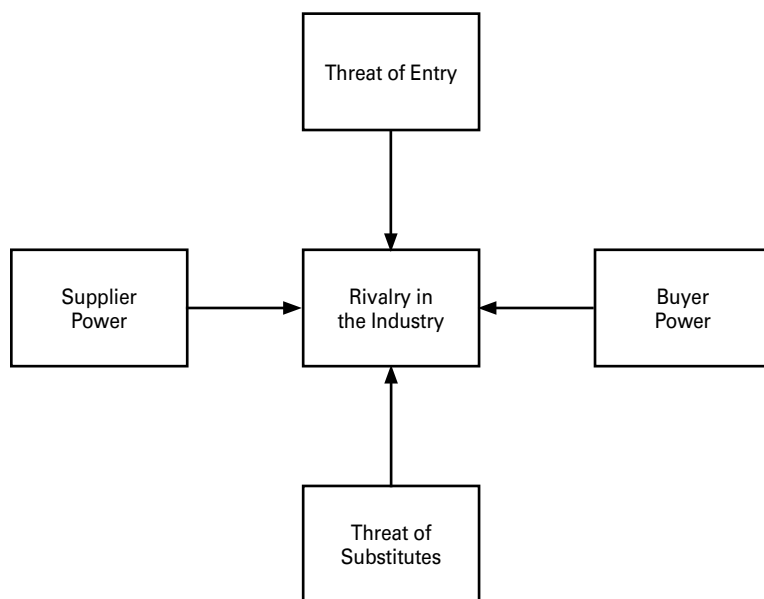
Not surprisingly, this study's authors conclude that every element of the learning content ecosystem is in motion—albeit at differing speeds. While overlapping waves of digital innovation are likely the most influential and de-stabilizing variable affecting the ecosystem, other important forces are at work as well:

- U.S. college and university enrollments overall are flat;
- U.S. policymakers and educators are shifting the balance between student access and success;
- Enrollment in fully online courses and programs is now commonplace and online students source more of their learning content online and in digital form than do on-ground students;
- Today's students prefer print textbooks but are willing to shift depending on costs and circumstances. They spend about half the time in class and study as their predecessors in 1961.
- Faculty prefer print textbooks. They are assigning less reading, and are giving students higher grades than their predecessors did. They expect most students to go digital within five years.

[8] Michael Porter, Competitive Strategy. Illinois: Free Press, 1980.

- While the prices of new textbooks rise faster than the CPI, student per capita spending on learning content is declining. Students rent new and used books; buy used, older, or foreign editions; use (legal and illegal) download sites; or borrow course materials. Some simply disregard faculty assignments; and
- Amazon—the proverbial elephant in the room—has entered the college learning content ecosystem in a formal way with their Amazon Campus program. That company's scale, brand power, and technology leadership can make their entry a game changer in the ecosystem.

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> The actions of college stores in the next three to five years may
> define them as either part of the problem or part of the solution.

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Our analysis suggests seven areas that college store professionals should monitor:

- **Higher education's professoriate is now split between full-time salaried tenure track professors and part-time contract-based adjunct instructors.** Beliefs, preferences, and responsibilities between members of these groups vary widely, including those surrounding the selection and adoption of course materials. Understanding who makes adoption decisions (campus curriculum committee? deans? college district?) and how adoption decisions are made are important priorities for college store leaders.

- **The shift to digital is likely to accelerate as we move from 2015 to 2020.** That shift and Amazon's entry create competitive conditions that will continue to favor "minnows and giants." Under such conditions: "big firms grow bigger, the small multiply, and midsize enterprises are waning."[9] Independent stores that do not have the scale and purchasing leverage to compete on price will need to create closer ties to students via access to campus information systems, concierge services, and a shared affection for *alma mater*.

- **A variety of mounting pressures are likely to foster greater standardization in general education**—such as regulatory pressures on colleges and universities to facilitate the transfer of credit for coursework taken elsewhere or those posed by an increasingly contingent academic workforce. This growing standardization will reach into the learning content ecosystem.

- **The publishers' business model of creating new editions and offering digital supplements at ever-rising prices is running out of steam.** Many faculty do not assign importance to the availability or quality of digital supplements when adopting textbooks. Students are voting against rising prices with their feet. As mentioned, they are buying used textbooks and older or foreign editions, or they are renting, downloading, borrowing, or skipping assigned readings altogether.

- **The ailing textbook model, a maturing OER movement, the wide availability of learning content on the web, and other factors are leading publishers to reconceive textbooks as courseware.** A spending "arms race" is underway to imbue learning content with adaptive learning capabilities, games, simulations, animations, and analytics to make a compelling case for courseware.

- **The successful migration to courseware will depend on institutional licensing of courseware;** that is, replacing student-directed textbook spending with institutionally-mandated course material fees. The courseware packaging and licensing model allows publishers to pre-empt both the textbook rental and the used learning content markets. This model will be hard to socialize in higher education. One recent faculty survey concluded that "the majority of faculty users of digital courseware are actually detractors of their courseware." Faculty concerns over courseware include: (1) a steep learning curve and time investment required up front to use digital courseware effectively; (2) technical integration challenges adding to the time required from faculty to use courseware; and (3) perceptions that the time required (by courseware) isn't worth the potential—but unproven—benefit in terms of student outcomes.

- **While the evidence is striking that *per capita* student spending on learning content is declining, the reasons for the decline are not cause for celebration.** The hue and cry against rising new textbook prices is unlikely to diminish and the actions of college store operators in the next three to five years may define them as either part of the problem or part of the solution.

9 Daniel Pink, "The Shape of Things to Come," in *Wired*. May 2003. Available at: http://archive.wired.com/wired/archive/11.05/start.html?pg=2.

10 Tyson Partners, "Time for Class: Lessons for the Future of Digital Courseware in Higher Education, Part 1: Faculty Perspectives on Courseware," 2014. Available at: http://tytonpartners.com/tyton-wp/wp-content/uploads/2015/03/EGA009_CourseWP_Upd_Rd7.pdf. The authors of this study used a "net promoter" scale to ascertain current faculty support for courseware. A score of 8-10 defines a promoter of an activity. Faculty members surveyed by Tyson Partners cumulatively had a net promoter score of -25.

We have also described the related dominant vectors of change:

1. **There will be continued momentum in digital, social, and connected.** Adaptive or personalized learning content will likely become widespread in three to five years as will the widespread imbedding of intelligence and communication in everyday objects (Internet of Things). Digital learning content will likely dominate the academic landscape in this period.

2. **The intensifying focus on student success will continue.** In the past decade, more than 30 states in the U.S. have adopted some version of performance-based budgeting. These resource approaches focus less on an institution's enrollment success as on its students' graduation rates. The role of learning content in student success is likely to come under scrutiny as part of a widespread adoption of so-called learning analytics.

3. **Conditions will favor "minnows and giants."** Power has long favored the publishers and distributors in the learning content ecosystem. Today, fewer than 10 publishers dominate the selection, manufacturing, and pricing of commercial academic content, which is central to higher education's promotion and tenure process. The rise of Barnes & Noble, Follett Higher Education Group, and now Amazon represents a possible pendulum swing in power back to the bookseller. "Going digital" favors giants like Amazon who can both negotiate favorable pricing and spread their efficient operating costs over a global customer base. Giant firms will dominate learning content retailing on costs, making it possible for small, agile, and customer-focused "minnows" to dominate niche markets.

4. **Higher education student academic services are becoming unbundled and privatized.** Large philanthropies like Gates, Lumina, and Hewlett along with prominent private equity firms have concluded that higher education is ripe for disruption. They are investing in new and digital approaches to the full spectrum of academic services—from selecting a college; to financial aid management; to advising, coaching, and tutoring; to career counseling and placement. These new and private unbundled services have the potential to enrich the student experience, but also to complicate it. These services will also interact and compete with longstanding learning content services provided by college stores, academic libraries, and others.

5. **The use of courseware will rise, while the use of textbooks will decline.** While academic publishers deserve part of the blame for rising textbook costs, they face the same economics as college stores. Fewer students are buying new textbooks. Earnings—in the face of declining market share and rising production costs—can only be goosed up via price increases. The student trend away from new textbook purchases will likely continue or accelerate. Large publishers are betting big on courseware that integrates classroom lectures and discussion with content that would have been found in textbooks. If publishers can succeed in moving faculty toward courseware, they can get 100% adoption and thereby lower the cost of course materials for all students except those who download or eschew them altogether. This will not be easy.

6. **General education courses and programs will become more standardized.** Pressures to demonstrate learning outcomes, along with pressures to contain costs, promote credit transfer, and address the quality assurance challenges posed by a growing contingent academic workforce, will conspire to encourage academic departments to narrow curricular options. This will be particularly true if, and as, standardized assessments of postsecondary learning are used.

7. **The power of the consumer is rising. In a nutshell, students have options.** Today's learner can commute to a local community college, drive to a nearby state college or university, or choose among a wide variety of elite public or private universities regionally, nationally, or increasingly internationally. They can attend coding boot camps, study online, and take hybrid courses that balance on-campus and online learning experiences. Increasingly, state laws and inter-state reciprocity agreements encourage them to study at various colleges and to transfer credits to a "home" institution. Students are knowledgeable and empowered consumers. They are constructing educational programs that suit their schedules, moods, social lives, and budgets. They approach their learning content the same way. And in the face of declining enrollments in many parts of U.S. higher education, our institutions are racing to create experiences that will encourage these increasingly fickle consumers to fly in and stay awhile.

These vectors of change draw attention to a gathering storm that will very likely define the learning content ecosystem in the next three to five years. College store professionals are encouraged to use this short timeframe to plan around the following possible scenarios:

1. **The heated frog.** Student buying patterns and the increased presence of market giants like Amazon are likely to erode learning content sales, margins, and market share in independent stores. The strategic question facing the operators of these stores is whether or when to jump out of the hot water. The likelihood that the water temperature is rising is very high (p=.95). That said, college store leaders are resourceful and have options. The likelihood of staying beyond the boiling point is low (p=.3).

2. **The triumph of commercial courseware.** Commercial publishers need to find a digital path away from the textbook; a path that addresses competition from rentals, used book sales, download sites, and others. High quality courseware is likely to find acceptance in fully online graduate programs, which now enroll 22% of all U.S. graduate students (p=.7). Such courseware may also gain traction in the general education curricula of two-year colleges, which are delivered largely by adjunct faculty (p=.6). It is not likely that commercial courseware will find adoption any time soon among career-ladder teaching faculty (p=.2).

3. **The virtual hub becomes central.** One of the defining aspects of the emergent unbundled and privatized learning services marketplace is its fragmentation. This fragmentation is both a weakness and an opportunity. Commercial enterprises including Barnes & Noble, Blackboard, Chegg, and Instructure see themselves as the hub of a student-centered universe or the mortar that holds students and their service providers together. The campus has always served as the physical hub but has not asserted itself in cyberspace. The key campus service centers—libraries, student academic services, and college stores, or their association proxies (ACRL, NACS, etc.)—could position themselves to serve this integrative role. Doing so will require significant capital, branding and marketing, and a truly student-centered operating perspective. No one yet has a brand to leverage into this role. It is not likely that anyone will dominate this role within three to five years (p=.4).

4. **A giant comes knocking.** Amazon and other giants like Google want to dominate the retail landscape by becoming global same-day retail and distribution giants. The world they imagine is one in which imbedded sensors and ties to information systems continually broadcast customer needs. These needs are regularly addressed through home delivery. Both providers have much of the infrastructure they will need to support this. The Amazon Campus initiative represents both that firm's reversion to its core strengths—books—and its intentions to secure a network of physical trans-shipment points for staging and executing same-day delivery maneuvers. College stores have little to lose in this venture to the extent that Amazon or Google have both the market strength to keep publisher prices in line and the infrastructure to fully support digital delivery. They have much to lose, however, in the risk that if these giants become the shopping hub, their ambition may not stop at books. The likelihood that Amazon or others will come knocking is high (p=.99).

5. **Coming from behind…OER is gaining speed.** The Open Education Resources (OER) name was coined in 2002, but a movement to make learning content freely accessible via open licensing has been around for decades. To date, this movement has been high on passion but low on execution. Even now, only 25% of faculty members admit to being aware of OER. That said, a new generation of OER movers and shakers understand the need for economically sustainable business models while retaining their idealism. They have the attention of some of the world's largest philanthropies and are aware of the likely shift from textbook to courseware. Indeed, this shift presents the OER movement with a relatively level playing field since everyone is a newcomer in the courseware arena. Moreover, OER providers have none of the historical baggage carried by commercial publishers. Still OER is a dark horse candidate (p=.5).

Finally, this paper implores store leaders to create action plans. At the core, these plans will need to center on one of three general visions or philosophical approaches:

- **Become a minnow and develop those capabilities—largely analytics and customer relationship management—that allow you to dominate the learning content market at your institution.** To do so, you must know your students better and get to them faster than the giants who will beat you on price. Success as a minnow likely demands an effective set of campus partners: administration, IT, library, student academic services, and others.

- **Manage learning content as a channel for a giant.** If partnering with Amazon, Google, or another giant can assure: (1) net revenues for the institution; (2) improved affordability of learning content for students; and (3) a positive student experience and one whose halo includes the campus, such a partnership could liberate college store professionals and space to provide better service and assure store independence.

- **Become the campus' general merchandise and convenience store.** Look at the writing on the wall regarding the learning content business and retreat to and fortify a strong general retail position at your institution. For stores/campuses considering a move to outsource course materials in a hybrid model, the remaining role for the college store would include serving as a focused campus outfitter and convenience retailer.

The tactics for store action plans should include (to the extent possible) these nine specific actions to consider:

1. **Use data analytics. Know your students and your faculty adopters.** College stores that wish to remain relevant to their campuses and in the learning content business need to: (1) understand the make-up of their institution's student body; (2) understand how the segments that comprise their student body behave regarding learning materials; and (3) understand if and how faculty adopters hope to use the course materials the store supplies.

2. **Help formulate institutional policy. Engage in and align with institutional strategies.** Every college store and institution needs a multidimensional and boundary-spanning learning content strategy. Changes in learning content and services will intersect with academic policy, technology, student privacy, pedagogy, instructional costs, course materials accessibility, incentives, revenue management, and more. Developing effective policy and strategy needs to be a priority. The college store has the needed knowledge, skills, and relationships, and must be at the table.

3. **If Amazon (or another giant) comes-a-calling, consider taking that call—with caution.** The general terms of the first Amazon Campus contracts are now public and should be reviewed closely while important decisions are considered, such as:

    a. How far should the institution allow this "camel's nose" into the tent?

    b. Does the institution cede communications with faculty regarding learning content adoption to Amazon or seek to control that channel?

    c. How much student course enrollment information is appropriate or wise to share?

    d. Will Amazon safeguard student data?

    e. What cross-selling boundaries, if any, should be set to prevent Amazon's dis-intermediation of the college store across all merchandise categories?

4. **Delivery anyone? Concierge services from your college store.** Nearly one student in three is working 20 hours per week or more in addition to their school work. Extra-curricular and family activities also crowd busy schedules. Students, like all of us, live in a world that is driving toward same-day delivery to the doorstep. They will prefer and ultimately demand service models that save them time. College stores might consider providing store-to-door concierge type services.

5. **Consider becoming the student outfitter.** College stores provide a great many services above and beyond delivering a faculty member's adopted learning content on time. The array of merchandise they provide can be dizzying and approximate that of special-purpose small department stores. Yet some college stores may be missing the chance to really become the student's outfitter. Study abroad? Visit the college store to see what it is you'll need in Turkey. Field archeology? Yes, you'll find it through the college store. As important, most college stores are not typically guiding and outfitting students through the thicket of digital consumer choices that face them.

6. **Become an indispensable resource to students and the institution on the long migration path to courseware.** Courseware is coming. It is a big, new institutional expense category; a new academic productivity, quality, and student success vehicle; and a new source of risk. Partner with the CIO, librarian, and provost to pave a productive path for courseware. Large commercial publishers will want to enter into institution-wide agreements for access to courseware. This will become a huge opportunity and an even bigger challenge for colleges and universities. Among the challenges, someone will need to understand the commercial market, prevailing contract terms and conditions, and other business variables that will materially affect the cost and ultimate success of campus-wide courseware licensing efforts. College store professionals are ideally situated, and should be suited, to represent the institution's business interests in this important arena.

7. **Become the institution's affordable learning content solutions broker.** Students are, to a great extent, bereft of financial advice of any kind throughout their collegiate experience. Cumulatively, they are $1.3 trillion in debt. Commercial learning content is a discretionary expense and competes in students' minds with food, health insurance, gasoline, and other necessities. Students typically figure their spending budgets out alone or seek the guidance of other students, leading often to imperfect outcomes, including an increasing reliance on download sites, extensive borrowing of course materials, or outright avoidance of required learning content. A time may come when the college store leader must choose between helping students navigate learning content sourcing plans or maximizing learning content revenues and earnings. We suspect that there are pathways here to do well by "doing good."

8. **Hitch the college store's wagon to student success.** Student success is not likely to be a passing fad. To really move the needle on student success, aligning the actions of disparate campus organizations to the institution's priorities is critical. Today, even as each stove-piped provider of instruction and services to students strives to improve, our absence of coordination betrays a core fragmentation from a student perspective. College store professionals have a unique and important vantage and perspective on essential parts of the student experience. The institution's librarian has another, as does the dean of students, the executive in charge of student academic services, residential life, and so forth. Higher education may be ready to create the student success center. Building on the success of the library's academic commons, such a center could provide a one-stop physical and virtual environment for students. Here the college store could realize a new vision as a pillar of the institution's student success commitment.

9. **Reform is not a period of retreat.**[11] An orderly retreat can be strategic and is not a defeat. In a nutshell, college store professionals should be looking back five years at revenues, margins, and earnings from learning content and then projecting them forward five years. It is essential to remember that service to students and faculty—and not independence—is the primary mission. Reforming the college store's offerings—including paving an intelligent path away from direct sales of learning content—needs to always remain one of the store's most precious options.

[11] From Pulitzer Prize-winning historian David Remnick.

3

THE LEARNING CONTENT ECOSYSTEM

Why Think about Ecosystems?

The term ecosystem, of course, was coined by biologists to describe a system, or a group of interconnected elements, formed by the interaction of a community of organisms with their environment. An ecosystem is a complex set of relationships among the living resources, habitats, and residents of an area, including plants, trees, animals, fish, birds, and others. In ecological biology, "competition is an interaction between organisms or species, in which the fitness of one is lowered by the presence of another. Limited supply of at least one resource (such as food, water, or territory) used by both can be a factor in competitive success."

Business consultant James F. Moore adapted the term ecosystem in a 1993 *Harvard Business Review* article.[12] Biologist Stephen Jay Gould made the observation that "natural ecosystems sometimes collapse when environmental conditions change too radically. Dominant combinations of species may lose their leadership. New ecosystems then establish themselves, often with previously marginal plants and animals at the center." Moore concludes that "for current businesses dealing with the challenges of innovation, there are clear parallels and profound implications." Moore's primary plea is for business practitioners to assimilate and integrate the idea of "co-evolution" across industries in an ecosystem into planning and strategy. To a very great extent, the purpose of this paper and the use of the ecosystem metaphor are to encourage those who lead today's college stores to track and understand the evolution not only of academic retailers, but of the other industries that comprise the *learning content ecosystem*.

> The use of the ecosystem metaphor is to encourage those who lead today's college stores to track and understand the evolution not only of academic retailers, but of the other industries that comprise the learning content ecosystem.

The study of ecology provides two other useful concepts. First, it teaches us that organisms are equipped with an *adaptive plasticity*—the ability to change traits such as morphology, development, biochemistry, physiology, behavior, and/or the products of behavior—in response to changes in conditions imposed by the environment. We think of these responses as acclimatization, acclimation, or learning. Second, environmental biologists think about a phenotype's *norm of reaction*. The *reaction norm* refers to the set of traits that can be produced by an organism's set of genes when that organism is exposed to different environmental conditions. Together these concepts help biologists understand an organism's resilience to varying environments. Again, the use of the ecosystem metaphor is designed to stimulate thought, discussion, and action around four questions:

- What changes are occurring among retailers, particularly campus stores?
- What changes are occurring among inter-dependent industries that comprise the college store's ecosystem?
- What is happening to the "host organism"—colleges and universities—which today's ecosystem has evolved to serve? Will the sustainability of other elements of the learning content ecosystem continue to depend on or derive from the host?
- What are the adaptive plasticity and norm of reaction of college stores; that is, what is our ability to react to a changing environment and what range of traits are we able to change?

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[12] James F. Moore, "Predators and Prey: A New Ecology of Competition," *Harvard Business Review*, May-June 1993. Available at: http://blogs.law.harvard.edu/jim/files/2010/04/Predators-and-Prey.pdf.

Disruption

Harvard Business School Professor Clayton Christensen changed the lexicon and our thinking about business with his publication of *The Innovator's Dilemma* in 1997.[13] Christensen elaborated the concept of disruptive innovation: *innovations* that create a new *market* and *value network* that will eventually disrupt an already existing market and replace an existing product. More simply, change comes when start-up companies use technology to sell low-value products and services to the fringes of a market.

The dilemma refers to the gap between the appearance of an innovation and the capacity of people to use or embrace it. Established businesses often reject new innovations because current customers cannot or do not use them. In rejecting such innovations—or in being slow to adopt them—these businesses cede the potential in these innovations to newcomers. Over time, low-value products and services improve and incumbent businesses, products, and services end up losing dominance in their markets. The lesson is that a narrow focus on today's customers can lead to complacency regarding innovative upstarts whose products seem inferior to those of the established market leaders. Complacency along with the failure to understand changing customer demand led to Detroit's loss of dominance in auto making and to the eventual triumph of mini mills in steel production. Increasingly, innovations are being designed and applied consciously by companies like Apple, Google, and others to shatter an industry's core business model. Uber's CEO Travis Kalanick, for example, is unabashed about his hope to "take 400,000 personal vehicles off the road."[14]

> Change comes when start-up companies use technology to
> sell low-value products and services to the fringes of a market.

Much has been written about the disruption of print newspapers as a result of competition from new digital substitutes like social media, blogs, and wikis. General and academic publishers face these same innovation opportunities and threats. Digital disruption has added fuel to the consolidation of that industry and the transformation of giants like Pearson, which now describes itself as a learning company. As Professor Christensen suggests, however, even today's giants must now look over one shoulder at digital-first global giants like Amazon, Facebook, and Google. These vertically integrating giants combine dazzling online customer service with massive subscriber bases, powerful brands, huge advertising revenues, and massive content stores (think YouTube) to challenge large on-ground business models in publishing, content distribution, and even education. At the same time publishing giants must look over their other shoulder at upstart "minnows" whose innovations have the potential to fundamentally change a market's competitive dynamics.

Elements of the Learning Content Ecosystem

The environment that comprises the higher education learning content ecosystem is vast, ancient, and dynamic. In the West, this environment has—for more than a millennium—revolved around the college or university. Western universities established at Oxford, Bologna, Salamanca, and Paris in the 11th and 12th centuries comprised or controlled the entire ecosystem. Contained within their walls and under the watchful direction of the Catholic Church, nearly all of the activities were carried out that we recognize today in the learning content ecosystem.

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[13] Clayton Christensen, *The Innovator's Dilemma: When New Technologies Cause Great Companies to Fail.* Cambridge: Harvard Business School Press, 1997.
[14] Aaron Mamlit, "400,000 Cars off the Road, 50,000 New Jobs: What Uber Promises Europe in New Deal," in Tech Times, January 19, 2015. Available at: http://www.techtimes.com/articles/27300/20150119/400-000-cars-off-the-road-50-000-new-jobs-what-uber-promises-europe-in-new-deal.htm.

Figure 3 – The Learning Content Ecosystem

These activities include:
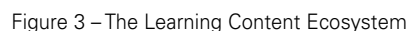
- **Creating Content**—comprising the creation of original academic content, initially in the form of sermons, commentaries, and lecture notes, and ultimately in a wide array of textbooks, specialized monographs, serial publications, and others.

- **Manufacturing Content**—comprising the set of activities that make up a vital part of a system of quality control over academic content. The Catholic Church, which initially mediated processes that regulated the flow of "theologically correct" content, was supplanted by peer review, editorial, and production processes designed to assure that learning content was academically sound. Terms like manufacturing and publishing actually understate the core process of content selection that underpins this element of the ecosystem.

- **Distributing and Aggregating Content**—comprising those activities associated with mitigating the complexity and lowering the transaction costs of acquiring learning content. While early universities focused on Church-approved content delivered via a disciplined hierarchy that linked the Vatican to bishoprics or dioceses, parishes, and universities; the growth of recorded learning content; the emergence of secular publishers and universities; and the ever-present limits on time and money fostered the growth of learning content intermediaries. Wholesale distributors sourced and stored learning content from a wide variety of publishing sources as a means of streamlining the discovery and purchase of learning materials. Academic libraries also grew over the centuries in order to localize and make available learning content on the university campus.

- **Selling, Renting, or Exchanging Content**—Bookselling has deep and respected roots that can be traced to early Greek, Roman, Arabic, and Asian civilizations. Records exist describing book purchases by Aristotle and Plato. The invention of the Gutenberg Press injected rocket fuel into the learning content ecosystem's evolution. While textbooks are found as early as the 15th century, the modern textbook evolved over centuries and did not take hold fully in U.S. collegiate general education until the mid to late 19th century. The textbook revolutionized the way collegiate (and K-12) material was transmitted to students. Their presentation of a consensus overview of the field, which has been vetted by peer-review, set textbooks apart from other learning content and from the individual

lecture notes they replaced.[15] The emergence of standard textbooks and of scale economies in their publication fueled both the collections of university and college libraries, the emergence of library "reserve" systems to facilitate sharing of these materials, and the need for the college store.

- **Selecting, Adopting, and Using Content**—Collegiate teaching and learning are in some ways akin to health care delivery in that the end consumer of services (student or patient) is not the same person who recommends or requires those services (professor or M.D.). To understand this element of the ecosystem, therefore, it is necessary to understand the forces that are operating on faculty as well as those at work on students. This is particularly true because of the much-publicized belief that "runaway" textbook costs are due in part to the fact that faculty, who require the books, do not suffer the economic consequences of those requirements. One provocative article title sums up this sentiment: "Faculty Hold the Keys to Lower Textbook Costs—But Do They Care?"[16] The key questions related to content selection and use include:

    o What factors influence faculty choice?

    o Is the cost of course material an influential factor with faculty?

    o How is the cost of course materials influencing their adoption (purchase, rent, borrow, pirate, avoid) by students?

    o What new approaches to selection, sourcing, or use are being considered or developed by students, faculty, publishers, or academic institutions?

We will also discuss the archipelago of technologically mediated learning and success services[17] that are not a traditional element of the learning content landscape. Student learning services appear in the ecosystem with increasing frequency and influence, and we can no longer evaluate the future of the ecosystem without understanding this new element. For example, Barnes & Noble recently announced that it had made a strategic investment in the peer-to-peer student e-marketplace provider Flashnotes.com. In that announcement, Flashnotes.com CEO Roberts indicated that the Barnes & Noble investment would provide the giant bookseller with "strategic opportunities in the growing educational services market."[18] In the same vein, textbook rental giant Chegg "pulled a Netflix" and announced in February that it planned to liquidate its print inventory over the next 18 months and refocus on its digital products, including self-guided homework help and on-demand tutoring.[19] And when digital concierges like Apple's Siri and Microsoft's Cortana become good enough, do they address our physics questions in a lilting accent reminiscent of Albert Einstein?

Whatever the future of the learning content ecosystem, it is clear that student success in college has as much or more to do with what happens outside the classroom or assigned learning content as within it. We think that the interaction between this emergent archipelago of learning and success services with elements of the longstanding ecosystem will become critically important pedagogically and competitively.

Of course any analysis of the higher education learning content ecosystem in 2015 would be incomplete without an analysis of higher education itself. Colleges and universities, through their college stores, libraries, university press organizations, centers and other research units, and faculty, play nearly all roles associated with learning content. Because of the central position occupied by the college and university in this ecosystem, a substantial portion of our analysis is devoted to it. We begin our analysis of the learning content ecosystem by looking at its core participant, colleges and universities.

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[15] P. Bierman, Reconsidering the textbook [Workshop summary], 2006. Available at: http://serc.carleton.edu/files/textbook/summary.pdf.

[16] Ingrid Nakamura, "Faculty Hold the Keys to Lower Textbook Costs—But Do They Care?" in *The Evolllution*, March 23, 2015. Available at: http://www.evolllution.com/opinions/faculty-hold-the-keys-to-lower-textbook-costs-but-do-they-care/.

[17] NB: This suite of services—a subset of what is labeled EdTech—is not well catalogued and the nomenclature to describe it is an emerging market. Some refer to student academic services, some to student learning services, others to educational services.

[18] Tara Mathewson, "Barnes & Noble Invests in Peer-to-Peer Marketplace," in Education Dive, March 11, 2015. Available at: http://www.educationdive.com/news/barnes-noble-invests-in-peer-to-peer-study-marketplace/373586/.

[19] Ainsley O'Connell, "Why Chegg is Abandoning a Business Worth Over $200 Million a Year," in Fast Company Fast Notes, February 24, 2015. Available at: http://www.fastcompany.com/3042789/fast-feed/why-chegg-is-abandoning-a-business-worth-over-200-million-a-year.

COLLEGIUM: THE LEARNING CONTENT HUB—COLLEGES AND UNIVERSITIES

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"

Mapping the Learning Content Ecosystem
SCORECARD
COLLEGIUM: The Learning Content Hub— Colleges and Universities

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)

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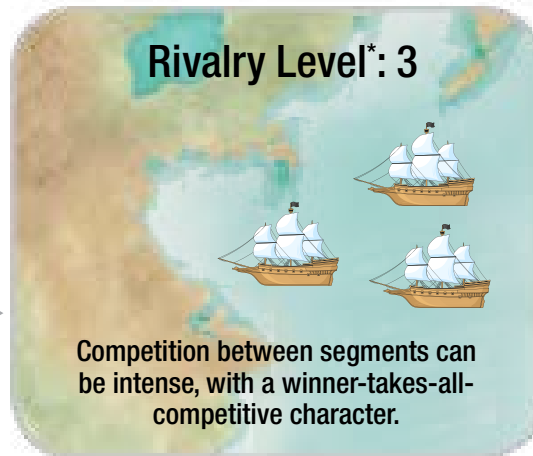
Competition between segments can be intense, with a winner-takes-all-competitive character.

New Entrants

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

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.[20] 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.[21]

Figure 4 – College and University Enrollments by Enrollment Status and Institution Type | Source: U.S. Census Bureau, 2013
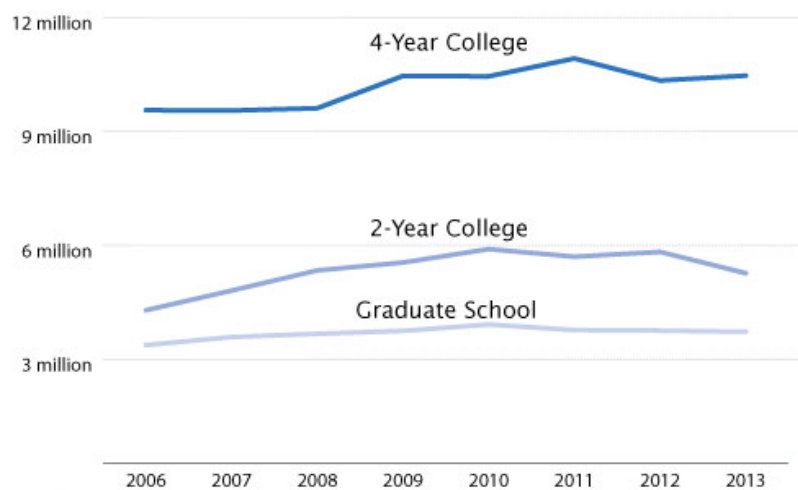
The success of U.S. higher education goes far beyond enrollment growth. By nearly all accounts and popular measures, U.S. colleges and universities dominate the quality rankings of world universities.[22] In terms of scholarly content, the top 10 U.S. university libraries collectively hold more than 100 million volumes.[23] 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.[24]

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

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[20] Thomas Snyder, ed. 120 Years of American Education: A Statistical Portrait, U.S. Department of Education, National Center for Education Statistics, p. 65. Available at: http://www.higheredinfo.org/dbrowser/index.php?submeasure=331&year=2009&level=nation&mode=data&state=0 and National Center for Higher Education Management System (NCHEMS), "Participation Rates," 2015. Available at: http://www.higheredinfo.org/dbrowser/index.php?submeasure=331&year=2009&level=nation&mode=data&state=0 See also NCES Fast Facts at http://nces.ed.gov/fastfacts/display.asp?id=98.

[21] According to the U.S. Census Bureau, in 2013, there were 19.5 million college students, including 5.3 million in two-year colleges, 10.5 million in four-year colleges, and 3.7 million in graduate school. See http://www.census.gov/newsroom/press-releases/2014/cb14-177.html.

[22] The Times (U.K.) 2015 ranking identifies U.S. universities as 29 of the world's top 50 universities. See http://www.timeshighereducation.co.uk/world-university-rankings/2014-15/world-ranking, The QS 2014 (China) ranks 18 U.S. universities among the top 50. See http://www.topuniversities.com/university-rankings/world-university-rankings/2014#sorting=rank+region=+country=+faculty=+stars=false+search=. The Center for World University Rankings identifies 31 U.S. universities among the top 50 universities of the world. See http://cwur.org/2014/.

[23] American Library Assn., "The Nation's Largest Libraries." Available at: http://www.ala.org/tools/libfactsheets/alalibraryfactsheet22.

[24] Estimates of annual college student spending can be found from less than $700 per year (NACS) to more than $1,100 (College Board). These estimates are based on surveys of both full-time and part-time students. The range of total spending presented was determined by multiplying estimated per student spending by the total U.S. student enrollment and is meant as a back-of-the-envelope sizing of this purchasing influence.

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-punks, edu-preneurs, venture philanthropists, private equity investors, and others at the periphery of traditional colleges and universities lends urgency and potency to this conclusion.[25] 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."[26] President Janet Napolitano in the *Washington Post* calls this "a chorus of doom."[27] 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."[28]

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."[29] 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.[30] 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

25 Anya Kamenetz, DIY U: *Edupunks, Edupreneurs and the Coming Transformation of Higher Education*. New York: Chelsea Green Publications, 2010.
26 Michael Roth, "Beyond the End of College," in *The Atlantic*, March 11, 2015.
Available at: http://www.theatlantic.com/education/archive/2015/03/beyond-the-end-of-college/387472/.
27 Janet Napolitano, "Higher Education Isn't in Crisis," in *Washington Post*, March 12, 2015.
Available at: http://www.washingtonpost.com/opinions/higher-education-isnt-in-crisis/2015/03/12/f92b777e-bba2-11e4-bdfa-b8e8f594e6ee_story.html.
28 Kevin Carey, *The End of College: Creating the Future of Learning and the University of Everywhere*. New York: Riverhead Books, 2015, p.129.
29 Lenzner, Robert and Stephen S. Johnson, "Seeing Things as they Really Are," in *Forbes*, March 10, 1997.
Available at: http://www.forbes.com/forbes/1997/0310/5905122a.html.
30 With due respect to Mark Twain.

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.[31] 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.[32]

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."

[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.
[32] Jaschik, Scott and Doug Ledderman, "Inside Higher Education Survey of College and University Presidents."
Available at: https://www.insidehighered.com/sites/default/server_files/files/2015%20IHE_PresidentsSurvey.pdf.

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."[33]

> **NACS Resource:** "Creating a Good Faith Course Materials Campus—Guidelines", available at www.nacs.org/goodfaith

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[33] Kevin Carey, "The Siege of Academe," in *Washington Monthly*, September/October 2012.
Available at: http://www.washingtonmonthly.com/magazine/septemberoctober_2012/features/_its_three_oclock_in039373.php?page=all.

Figure 5 – The Siege of Academe
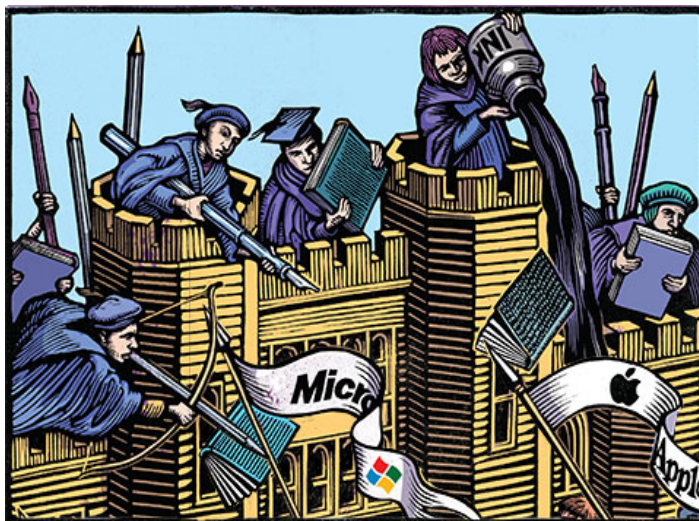
The bargaining power of publishers regarding course materials is also declining. The reasons for this decline include:

- 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%.[34] 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.

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[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.[35] 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.[36]

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.[37] 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.[38] In terms of enrollments and dollars, U.S. higher education is very heavily influenced by 50-100 institutions. They must be considered key players.

[35] James R. Layton, *No Significant Difference Phenomenon*, 1999. North Carolina State University, Raleigh, NC.

[36] Scott Jaschik, "Not a Tsunami, But …," in *Inside Higher Education*, March 25, 2015. Jaschik summarized President Hennessy's address to the American Council on Education. Available at: https://www.insidehighered.com/news/2015/03/16/stanford-president-offers-predictions-more-digital-future-higher-education

[37] U.S. Department of Education National Center for Education Statistics, Fast Facts. Available at: https://nces.ed.gov/fastfacts/display.asp?id=75.

[38] Harvard University Financial Report, Fiscal Year 2013, November 2013. Available at: http://finance.harvard.edu/files/fad/files/2013fullreport.pdf.

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—like college stores—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?*

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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 muddied 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.

> As interactivity and educational theory are built into digital course materials, elements other than content expertise become more important to the content value proposition.

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 19th 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).[39] 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.[40] Another study reports that nearly two-thirds of students have decided against buying a textbook at one time due to cost.[41] 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."[42]

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

Percent increase since 2002

Tuition and fees 89
College textbooks 82
Overall consumer prices 28

Source: Bureau of Labor Statistics' Consumer Price Index data.
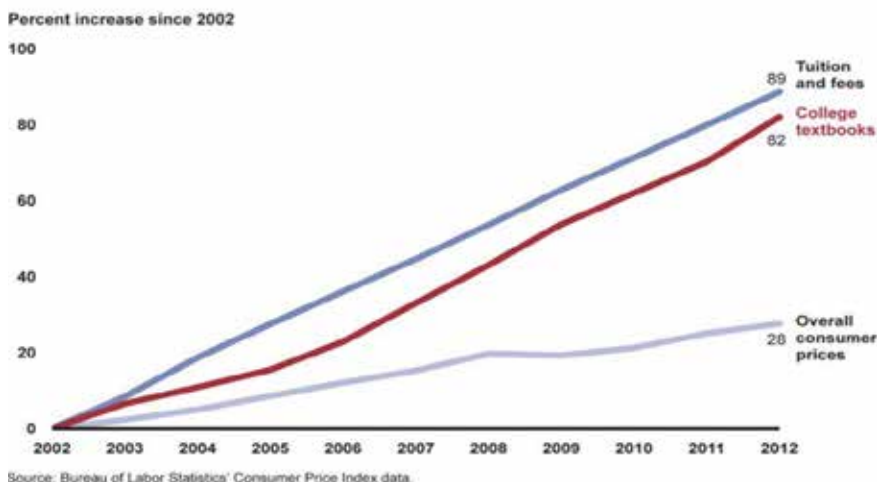
39 Mark J. Perry, "The college textbook bubble and how the 'open educational resources' movement is going up against the textbook cartel," *AEI Ideas,* December 24, 2012. Available at: http://www.aei.org/publication/the-college-textbook-bubble-and-how-the-open-educational-resources-movement-is-going-up-against-the-textbook-cartel/; U.S. General Accounting Office, *College Textbooks: Students Have Greater Access to Textbook Information.* GAO-13-368, 2013. Available at: http://www.gao.gov/assets/660/655066.pdf.
40 NACS' OnCampus Research® *Student Watch™: Attitudes and Behaviors toward Course Materials Fall 2014.* NACS Foundation, 2015.
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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.

> The basic proposition of OERs is to restore textbook affordability by socializing production costs and offering materials free or at radically reduced prices.

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.[43]

- **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.[44] 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)

43 NACS' OnCampus Research® Student Watch™. Available at: https://www.nacs.org/research/industrystatistics/higheredfactsfigures.aspx.
44 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."[45] **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.[46] 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.

> Faculty authors may resort to the "gig economy" of short-term work for hire mediated by auction-like Internet services, a fate familiar to many of the editors and graphics artists with whom authors work.

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,

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[45] *The New Republic*, "A Humanist at the Humanities," 1977 August 20 and 27, Page 8, Column 2, The New Republic, Inc., Washington, D.C.
[46] 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.

> Perhaps the most fundamental challenge for those wishing to create commercially publishable learning content is contending with the explosion of buyer options.

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.[47] 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

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.

[47] 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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EDITUS: LEARNING CONTENT MANUFACTURING—PUBLISHING

Scholarly and academic content publishing has relied upon a close partnership between authors (often faculty) and "manufacturers" (typically publishers). Digital disruption, changes in teaching and learning, and the rise of new consumer expectations and product innovations are creating extreme pressure on the traditional model and leading to revolutionary changes within the incumbent publishing companies. New digital adaptive learning products and platforms could alter the face of learning content in substantial ways and for years to come.

Key Points

1. The act of scholarly publishing was designed both to diffuse new knowledge and confer credit on its discoverer. It initially was controversial, unprofitable, and widely ridiculed.

2. The transition to digital textbooks and other learning content is proceeding slowly—disrupting the publishing industry in key ways:

    a. Pedagogy is evolving: The *lectio* mode is being supplemented or replaced.

    b. The ante in academic publishing is rising.

    c. Rich primary and secondary resources are within easy reach—often at no cost to users.

    d. A stubborn OER movement is maturing and strives to "liberate" learning content manufacturing from the publishers.

    e. Digital media stimulate changes in human behavior, patterns of consumption, and preferences.

3. A key challenge for academia and its publishers is maintaining the integrity of the peer review process, while making the process faster and more transparent.

4. The key trends in learning content manufacturing include:

    a. Publishers making significant investments in digital capabilities to enable learning content to do more and go further digitally.

    b. Rising rental of physical and digital textbooks and the emergence of online sourcing as standard store practice are both depressing sales of new textbooks.

    c. The critical need to make learning content discoverable and useable internationally.

    d. Publishers turning focus to courseware and monetizing content by incorporating licenses into the courseware they sell.

5. As publishing and education become increasingly dependent on cost containment, service quality, globalization, demonstration of outcomes, and sophisticated technologies, they must increasingly look over their shoulders at giants like Amazon, Google, Facebook, and Apple.

Mapping the Learning Content Ecosystem
SCORECARD
EDITUS: Learning Content Manufacturing—Publishing

Supplier Power

- Rise of superstar faculty raises costs + "the bar"
- OER, MOOCs, and open web offer suppliers new channels

Buyer Power

- The Long Tail (like print textbooks)
- E-commerce savvy consumers
- Knowledge of channels, pirate sites…
- Possible decline in faculty authority over student preferences
- Alternate sources like YouTube
- Course materials fee could be game changer

Rivalry Level*: 4

Rivalry is intense with pressure to "grow or go."

New Entrants

- Amazon Press? Google Press? Apple Press? Facebook Press?
- Barnes & Noble + Flashnotes?
- Uber/Lyft for textbooks?
- Rise of 3rd party content curators (Ace Learning)
- Shift to competency-based education

Substitutes

- OER
- Library e-reserves
- Informal content (e.g., Khan Academy, Wikipedia)
- Content exchanges and the 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.

Publishing: History, Mission, and Value Proposition

Content manufacturing is an ancient endeavor. Copying was used in the ancient world for the maintenance of commercial records and for the dissemination of proclamations and regulations. Book production—in the ancient world and later in the West—was confined largely to religious learning centers. Hebrew scribes transcribed books of the law and Catholic scriptoria—copy centers—became established sources of Church revenue and a stimulus for reading in the 4th century.

Modern publishing dates from the invention of the Gutenberg press and concurrent innovations in typography and the manufacture of paper and inks. These technical innovations depended on, and in turn, fueled the spread of literacy. These improving technical and social conditions prepared the ground for the emergence of the modern publishing industry. Many credit the rise of printing, publishing, and literacy with some of the most important transformational movements of Western history such as the Enlightenment, the Protestant Reformation, and the Industrial Revolution.

> The act of scholarly publishing was designed both to diffuse new knowledge and confer credit on its discoverer. Initially, scholarly publishing was controversial, unprofitable, and widely ridiculed.

In 1476, Cardinal Juan de Torquemada commissioned the creation of a printing studio in the oldest Benedictine monastery in the world—the monastery of St. Scholastica in Italy. This studio is credited as being among the oldest publishing houses in the world.[48]

Academic publishing as we know it is believed to be a 17th century innovation. Two of the earliest research journals—the *Journal des Savants* in France and the *Philosophical Transactions* of the Royal Society in England—were published within weeks of each other in 1665. The act of scholarly publishing was designed both to diffuse new knowledge and confer credit on its discoverer. Initially, scholarly publishing was controversial, unprofitable, and widely ridiculed. The belief that science can only move forward through a transparent and open exchange of ideas backed by experimental evidence continues to drive the mission of scholarly publishing. This belief is a cornerstone of modern scientific inquiry. Transparently demonstrating quality, authenticity, and rigor through an open exchange defines the mission of academic publishing across all scholarly disciplines. Since the 17th century, an estimated 50 million journal articles have been published.[49]

In U.S. education, the breakthrough publishing innovation since Gutenberg was the introduction of the textbook in the 19th century in the form of New England Primers and McGuffie's Reader. *McGuffey's Eclectic Reader*—copyrighted in 1879—enjoyed wide distribution under the publishing mark of John Wiley & Sons.[50] Any American over the age of 50 who can recall *See Spot Run* was deeply influenced by Wiley & Sons and the McGuffey Readers and their successors. In many ways, the textbook—refined over 200 years and deepened for the college or university audience—codified or enforced the "transfer of information" model of instruction. This durable model—which casts the student as a sponge—has ruled higher education "since the days of the medieval Schoolmen who, in their lectio mode, stood before a room reading a book aloud to the assembly, no questions permitted. The modern version is the lecture."[51]

[48] The Monastery of St. Scholastica. Available at http://www.terredaniene.com/i-monasteri-benedettini-subiaco/monastero-santa-scolastica-subiaco.

[49] Wikipedia, "Academic Publishing." Available on March 28, 2015 at: http://en.wikipedia.org/wiki/Academic_publishing.

[50] See *McGuffie's First Reader*, Project Gutenberg. Available at: http://www.gutenberg.org/files/14640/14640-pdf.pdf.

[51] Craig Lambert, "The Twilight of the Lecture," in *Harvard Magazine*, March-April 2012. Available at: https://harvardmagazine.com/2012/03/twilight-of-the-lecture.

Disruption of Learning Content Manufacturing

The written word continues to be the *sine qua non* of college and university teaching and learning, and peer review continues to be the gold standard of academic quality control. Their durability, coupled with the tremendous growth of higher education,[52] created conditions for the growth and durability of academic publishing. Indeed many publishing houses have become giants and boast roots that are centuries old.

Notwithstanding their size and long pedigrees, academic publishers too are being disrupted. Many argue that academic publishing is ripe for disruption and that the shift to digital, while the dominant force, is not the only one. While academic publishers continue to occupy an influential place in the collegiate learning content ecosystem, they have become lightning rods. The complex inter-dependence between academic publishers and college and university libraries, for example, is rife with resentment over the consolidation of the publishing industry and perceptions by many of monopoly pricing for academic journals. Digital disruption is adding headwinds to the mix—from shifting pricing models, license terms, consortial arrangements, and the conversion from print to electronic subscriptions.[53] Over the last decade, there has been "a remarkable shift in the move of research libraries away from collecting current journals in print form." By 2012, only 2% of the contracts for bundles of library journals (among ARL research libraries surveyed) still included print.[54]

Academic publishing attracts lightning with students as well. Any casual scan of the web on the subject of "textbooks" is more than likely to yield results that are predominantly concerned with their costs. Many argue that the textbook market—like that for prescription drugs—is "remarkable because the primary individuals who choose college textbooks (faculty) are not the people that pay for those textbooks (students)."[55] Many believe that "a faculty member's choice of a textbook seldom is considered in any evaluation and even less often is the price of that textbook a factor."[56] This "broken market" theory is often used to explain why textbook prices rise faster than the rate of inflation.

> The raw learning content to fuel nearly any imaginable course is now available in a legally and technically useable form for free on the web.

While the transition to digital textbooks and other learning content is proceeding slowly, it is disrupting the publishing industry in key ways:

1. **Pedagogy is evolving.** Many faculty today are experimenting with different forms of so-called active learning. For many, interest is based on the belief that "the hands-on interactive experience in a lab or an art studio is more powerful than a lecture, and can't be replicated online."[57] At many institutions, the lectio mode is being supplemented or replaced with video lectures that can be viewed anytime by students. Class time is being liberated for more active forms of instruction. Many of those at the forefront of the active learning movement view the traditional textbook as a passive extension of the "talking head" mode of instruction they seek to replace.

2. **The ante in academic publishing is rising.** The antidote to passive print textbooks is highly interactive, multi-modal (text, games, simulations, etc.), and fluidly integrated learning content. Progressive publishers are enriching traditional learning content with rich media that extend the learner's capacity to understand through models, simulations, photographs, videos, etc. And most publishers are now creating adaptive learning materials which assess a learner's mastery and comprehensive and then "change" their pace, text, problem sets, and pathways to reflect a student's progress. These innovations succeed in making passive materials "active," but drive up the cost of learning content in the process. Content remains a substantial investment whether print or digital; and 24/7 servers and technology staff come at a greater expense than the print versions' binding and warehousing.

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[52] See The Economist Special Report, "The Whole World is Going to University," March-April 2015.

[53] Karla Strieb and Julia Blixrud, "The State of Large-Publisher Bundles in 2012," in *Research Libraries* Issues, 2013. Available at: file:///C:/Users/Richard/Downloads/3p34ja.pdf.

[54] Ibid.

[55] James V. Koch, "An Economic Analysis of Textbook Pricing and Textbook Markets," ACSFA College Textbook Cost Study Plan Proposal, September 2006. Available at: http://www.immagic.com/eLibrary/CBICBT99/FIN_AID/US_ED/A060923K.pdf.

[56] Ibid.

[57] Craig Lambert quoting Logan McCarty, Harvard College Director of Physical Science Education, in, "The Twilight of the Lecture," in *Harvard Magazine*, March-April 2012. Available at: https://harvardmagazine.com/2012/03/twilight-of-the-lecture.

3. **Rich primary and secondary resources within easy reach—at no cost to users.** Google, for example, has teamed with 40 important research libraries around the world "to make it easier for people to find relevant books." Google's ultimate aim is "to work with publishers and libraries to create a comprehensive, searchable, virtual card catalog of all books in all languages that helps users discover new books and publishers discover new readers."[58] In essence, the raw learning content to fuel nearly any imaginable course is now available in a legally and technically useable form for free on the web.

4. **A stubborn OER movement is maturing.** Digital technologies—by facilitating scholarly collaboration and lowering the barriers to creating and sharing the outputs of scholarly work—have unleashed an impulse to share resources of all kinds. An open education resources movement strives to "liberate" learning content manufacturing from the publishers and place it into the hands of the faculty who created that content. This movement still awaits sustainable governance, funding, and collaborative models, and improved links to the tenure and promotion process.

5. **Digital media stimulate changes in human behavior, patterns of consumption, and preferences.** In particular, the emergence of wireless networking and of powerful handheld devices unleashed or liberated humans' natural preference for mobility. And as ink on paper became pixels on screens and as screens became smaller and pocket-sized, reading patterns and preferences began to change. These changes affect publishers and booksellers, challenging a centuries-old supply chain that linked authors to publishers to distributors to booksellers to readers. A similar phenomenon has already occurred in the movie rental ecosystem (Figure 7).

Figure 7 – Changing Consumer Preferences in the Digital Age | Source: Piper Jaffray
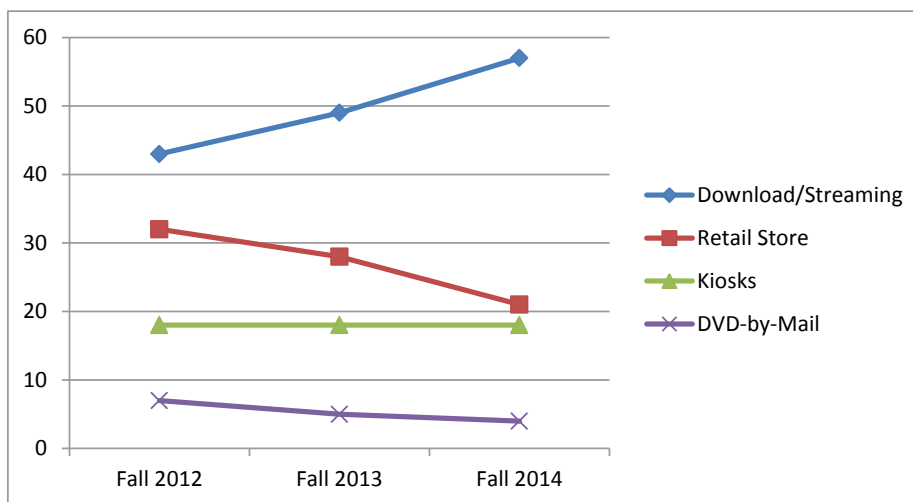
Competitive Dynamics

The dynamics in scholarly publishing—including the publishing of college and university learning content—are challenging. University of Utah Associate Dean Richard Anderson summed it up concisely: "Publishers are fielding more and more [journal] submissions and chasing smaller and smaller budgets while also dealing with an increasingly complex scholarly communication environment. It's a very tough position to be in."[59]

Key Trends

Many important trends are influencing modern academic publishing. Peer review, for example, remains a vital part of the academic tenure and promotion process, serving as a filter for relevance and rigor, controlling quality, and seeking to ensure that published works move learning and the discipline forward. A key challenge for academia and its publishers is maintaining the integrity of the peer review process, while making the process faster and more transparent.

[58] Google Books. Available at: https://www.google.com/googlebooks/library/.
[59] Dalmeet Singh Chawla, "Nature publisher to merge with the world's second biggest science publisher," in *Science*, January 15, 2015. Available at: http://news.sciencemag.org/scientific-community/2015/01/nature-publisher-merge-world-s-second-biggest-science-publisher?rss=1.

Faculty concerns over the growing influence of commercial publishers, the growing importance of student success, and continued textbook affordability issues warrant keeping Open Access (OA) and Open Educational Resources (OER) on the radar. SPARC claims that "open access publishing is the fastest growing segment of the scholarly publishing market."[60] OA is the free, immediate online availability of research articles, coupled with the rights to use these articles freely in the digital the environment.[61] The Directory of Open Access Journals lists more than 10,000 journals from 136 countries encompassing more than 1.8 million articles.[62] Scholars today can publish their work in open access journals, preserve that work in open digital repositories, and enter into licenses that assure the wide use and accessibility of that work. OER are freely accessible, openly licensed documents and media that are useful for teaching, learning, and assessing as well as for research purposes. OER "have not noticeably…affected daily teaching approaches at most institutions,"[63] and "OER is not a driving force for faculty decisions about which educational materials to adopt."[64] Despite this, OER is worth tracking. New sustainability models like Lumen Learning are emerging, and a recent study indicates that 77.5% of faculty members who are not current OER users expect either to use or will consider using OER.[65]

> A key challenge for academia and its publishers is maintaining the integrity of the peer review process, while making the process faster and more transparent.

The key trends in learning content manufacturing (publishing) include:

- **Digital future**—Publishers are making significant investments in digital capabilities to enable learning content to do more and go further digitally. These include investments in adaptive learning technologies, testing, learning platforms, content curation, and assessment. Publishers are also positioning to support researchers' growing obligation to make research data accessible, hoping that the shift to digital can deepen the connection between the research and the publisher.

- **Flat revenues**—Rentals of both physical and digital textbooks are rising, and emergence of online sourcing as a store practice is depressing sales of new textbooks. The market for bundles of academic journals is constrained by collegiate revenues and budgets and is not supporting price increases. In the academic serials market, constrained budgets are making contracts with larger publishers more enticing, fueling merger and acquisition activity.

- **More research outputs**—The number of papers continues to increase, driving an increase in the number and size of journals in the market. There are approximately 114 million scholarly documents in English on the Internet now.[66] Bigger publishers have greater reach, attract more papers, sell into more markets, and can launch more journals more easily. More research data to process demands more infrastructure, more technical capabilities, and greater data curation skills again favoring the large publisher and fueling mergers and acquisitions.

- **Globalization of publishing**—Making learning content discoverable and useable internationally is critical. Many journals now feature author-submitted multi-language abstracts. Scale is key to addressing the entire globe effectively and the globalization trend, too, is fueling merger and acquisition activity in publishing.

[60] SPARC, "Open Access." Available at: http://www.sparc.arl.org/issues/open-access.

[61] Ibid.

[62] Directory of Open Access Journals. Available at: http://doaj.org/.

[63] Gerd Kortemeyer, "Ten Years Later: Why Open Educational Resources Have Not Noticeably Affected Higher Education, and Why We Should Care," in *EDUCAUSE Review*, February 26, 2013. Available at: http://www.educause.edu/ero/article/ten-years-later-why-open-educational-resources-have-not-noticeably-affected-higher-education-and-why-we-should-ca.

[64] Allen, Elaine I. and Jeff Seaman, *Opening the Curriculum: Open Educational Resources in U.S. Higher Education, 2014*. Available at: http://www.onlinelearningsurvey.com/oer.html.

[65] Ibid. p. 31.

[66] Becky Degler, "Five Key Trends in Professional Publishing," in *Wiley Exchanges*. Available at: http://exchanges.wiley.com/blog/2014/08/15/5-key-trends-in-professional-publishing/.

- **Contention over intellectual property**—As commercial publishing becomes dominated by tech-savvy, scale-seeking "giants" and as the educational uses of digital technology become more sophisticated, the textbook will change. Publishers may come to think of textbooks more as stores of raw materials than as finished products. They will manage vast stores of digital learning content that is discoverable by subject, level, competency, learning outcome, and other attributes. These stores will be linked to exercises and assessments. Publishers may focus on *courseware* and will monetize their content by incorporating licenses into the courseware they sell. Courseware may incorporate today's "textbooks." Commercial content in courseware will reside along open content. Value in content-agnostic courseware will come in part from snippets and chunks of vended learning content and from traditional integrated texts. As the need and means to monetize granular chunks of learning content rises, so will contention over its fair use. Even more, the commercial interests of publishers in this mode may come into sharp conflict with students raised in a cut-and-paste world.

- **Publisher vertical and horizontal integration**—Large publishers increasingly think of themselves as learning companies. Cengage Learning sees integration this way: "Our heritage as a leading educational publisher coupled with our investments in technology and academic services positions us to benefit from the migration to digital solutions."[67] Today's academic publishers are not only creating (and harvesting) value from snippets, chunks, and fully integrated learning content, but from courseware, content personalization, course integration, problem set creation and administration, tests and testing administration, assessment support, and other instructional services. One journalist recently described this trend: "To prepare their students for Pearson exams, districts can buy Pearson textbooks, Pearson workbooks, and Pearson test prep…They can connect kids to Pearson's online tutoring service or hire Pearson consultants to coach their teachers. Pearson also sells software to evaluate teachers and recommend Pearson professional development classes to those who rate poorly… ."[68]

> **NACS Resource:** "Copyright Primer for the Campus Community" and "Questions and Answers on Copyright for the Campus Community," available in The Hub (NACS member login required) or upon request to education@nacs.org

Rivalry within Publishing

Rivalry within the publishing industry is intense. First and foremost, firms in the publishing industry are under intense pressure to "grow or go." Becoming a global, tech-savvy, digital-first publisher is a competitive necessity. Of course, rivalry in an eat-or-be-eaten environment is intense. The grow-or-die mantra derives directly from the digital disruption which adds hugely to the rivalry. As *The Economist* recently put it: "Digital disruption will prompt innovation, hastened by desperation."[69] Academic publishers in 2015 have two choices: (1) they can become huge K-20 research or instructional integrators; or (2) they can try to dominate specialized educational niches and withstand the ongoing pressures for assimilation into the larger integrators.

Exacerbating the industry rivalry is the fact that the integrative digital vision that fuels the rivalry is not fully formed. Perhaps not even partially formed. Imagine running a marathon with neither a map of the course to be run nor a clear notion of the finish line. Combustive fuel is also being added to the publishing industry rivalry as a result of member firms' need to reach far outside their traditional areas of competency. The pre-digital publishing world had famous, sometimes familial rivalries, but it was a stable world hallmarked by durable "franchises" (textbook titles) protected by copyrights. Today's publishers are locked in an acquisitive or developmental

67 Cengage Learning Holdings II, Inc., "Transition Report for the Nine Months Ended March 31, 2014, p. 6. Available at: http://www.cengage.com/investor/pdf/annual_report_for_fy2014-8.28.14_final.pdf.
68 Stephanie Simon, "No Profit Left Behind," in *Politico*, February 10, 2015. Available at: http://www.politico.com/story/2015/02/pearson-education-115026_Page2.html.
69 *The Economist*, "The World in 2015: The World in Numbers: Media," January 2015, p. 123.

scramble that extends far afield from their historical roots. They are creating big data, data curation, and analytics capabilities; testing and assessment services; tutoring, advisement, mentoring, and counseling; and so forth. Industry leader Pearson even opened Pearson College London, "The New Way to a Degree."

> Exacerbating the industry rivalry is the fact that the integrative digital vision that fuels the rivalry is not fully formed.

Massive investment in the absence of a clear road map is both a competitive necessity and a source of considerable risk. For those unable to complete the jigsaw puzzle in time, it may be a race to the bottom. *Publishers Weekly's* "The World's 56 Largest Book Publishers, 2014" indicated that industry leader Pearson's sales in 2013 declined to $7.8 billion from $9.16 billion in 2012. In this period, Reed Elsevier and Wiley were flat, McGraw-Hill was down, and Cengage Learning emerged from Chapter 11. Perhaps Cengage Learning summed up the industry rivalry best in its 2014 Transition Report. The top risk factors identified by Cengage Learning were the:

- impact of competition from established competitors and new businesses that have not traditionally participated in our markets, including the impact of new and enhanced product and service offerings and technology and competitors' ability to adapt more quickly to new or emerging technologies and market conditions;
- impact of used textbook and/or rental textbook programs and our ability to compete with them; and
- effect of increased accessibility of free or relatively inexpensive information and materials on pricing and demand for our products and services.[70]

> **NACS Resource:** "Creating a Good Faith Course Materials Campus—Guidelines"
> available at www.nacs.org/goodfaith

Bargaining Power of Suppliers

The key supplier to publishers is the creators of learning content. As long as commercial publishers own the top tier scholarly journals, and publishing in these journals remains the best path for advancement in research universities, the pipeline of journal articles and specialized scholarly monographs is secure. **The great threat to publishers as regards the bargaining power of suppliers is the emergence of a potent and growing open access movement.** If faculty promotion and tenure become more closely aligned with publication in open access journals, the flow of submissions—the raw material of publishing—will change course. To forestall any such shift, publishers must moderate price increases, retain quality while adding innovation (such as well-curated datasets), and retain the engagement of the top scholars who serve on their editorial boards. Overall, the suppliers of raw content to be manufactured are fragmented and while many academics are sympathetic to the means and ends of open access publishing, they know well the value of a publication in *Nature* or *JAMA*.

The situation with student-acquired learning content supply is more complex. Textbook authoring has long been highly specialized. Increasingly—as higher education moves toward greater standardization at the general education level—textbook authoring becomes a winner-take-all market. To the extent that this becomes the case, there is little incentive for faculty to write the second or third reading textbook in a given field. Such scholars will either write for journals, or will consider OER avenues. This possible change to the supply dynamics would not be a substantial one in this scenario.

Lastly, it is possible to imagine a scenario in which the power of learning content suppliers—higher education's faculty—*shrinks*. If large publishers focus in the future on courseware, their demand for textbooks may drop. In such a scenario, there might evolve a lively market for more granular learning objects. For example,

[70] Cengage Learning Holdings II, Inc., "Transition Report for the Nine Months Ended March 31, 2014," p. 3. Available at: http://www.cengage.com/investor/pdf/annual_report_for_fy2014-8.28.14_final.pdf.

the need becomes for a 300-word block of text, a video, and a simulation that illustrate and explain the conservation of momentum, a core component of every introductory physics curriculum. Publishers can commission such objects as employee works-for-hire, or contract with faculty at rates far lower than those associated with an entire textbook. In such a scenario, the core competency needed by the publisher becomes instructional design, learning object integration, usability testing, content personalization, testing, and evaluation. As publishers develop and contextualize repositories of vetted and market-tested learning objects, their dependency on suppliers of textbooks (faculty authors) will decline.

Threat of New Entrants

Richard Anderson's characterization of publishers as "fielding more and more [journal] submissions and chasing smaller and smaller budgets while also dealing with an increasingly complex scholarly communication environment," does not roll out the welcome mat for new market entrants. **The flat higher education enrollments, rapid growth of textbook rentals, rise of content piracy, textbook's declining cachet, and widening investment moat in publishing will also discourage most ardent new entrants.** That said, one possible class of new entrant poses an existential threat to today's publishers. As publishing and education become increasingly dependent on cost containment, service quality, globalization, demonstration of outcomes, and sophisticated technologies, they must increasingly look over their shoulders at giants like Amazon, Google, Facebook, Apple, LinkedIn, and others. Amazon is now where much of the world buys books. They are global, tech savvy, deeply customer-oriented, and both gaining a foothold on campus and moving toward same-day delivery. Most importantly, Amazon has quietly become a large publisher. All of these firms have the means, if not the motivation (yet) to dominate learning content publishing. Google's YouTube is already the go-to source for do-it-yourself educational videos. Facebook hosts a good many academic "garage bands." LinkedIn may have a unique position in a competency-based-education world through its intimate connection with employers. These firms have the capital, the brands, the global reach, and the audacity to re-conceptualize academic publishing.

> As publishing and education become increasingly dependent on cost containment and sophisticated technologies, they must increasingly look over their shoulders at giants like Amazon, Google, Facebook, and Apple.

Bargaining Power of Buyers

Despite the hue and cry over textbook prices, **it is a good time to be a learning content buyer**. Most of today's college and university undergraduates are Millennials—born between the early 1980s and the early 2000s. These students are fully acculturated to the Internet, social networks, search, e-commerce, and mobile commerce.

Figure 8 – Time and Money Spent Online Annually by Age Group (U.S. 2013) | Source: Forrester
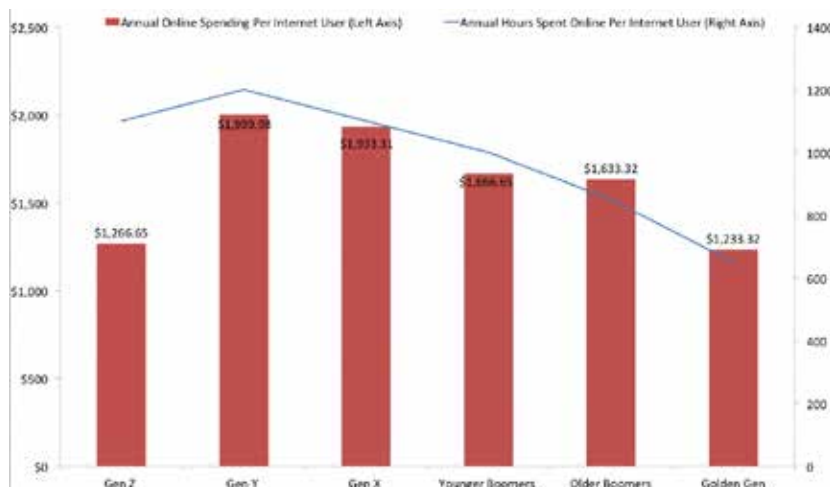
Not only do Millennials spend more time shopping online than does any other age cohort, they outspend the others despite their lower disposable incomes. They are sophisticated online consumers who know how to use comparison sites, and other tools. Many taught their parents "showrooming" or the art of examining merchandise in a brick and mortar retail store then buying it online. Most of them took online courses in high school and have very different ideas about intellectual property rights. This generation grew up during the heyday of Napster, Bit Torrent, and widespread piracy of music, games, and video content. They are reading less and renting more. And less than 40% of them would prefer a campus-only college experience to one that blends "on-ground" and online learning.

Today's students must be persuaded that required learning content is relevant. Many will shop aggressively for the best price, are comfortable with textbook rentals and used books, and in some cases will not purchase or rent a required textbook at all. They are juggling a variety of consumer strategies to drive down their textbook costs. Textbook utilization by this generation declined by more than 20% between fall 2010 and fall 2013 according to the Book Industry Study Group (BISG).

As the Cengage report notes, "the increased accessibility of free or relatively inexpensive information and materials" poses a direct threat to that company's pricing power. This threat likely refers to both the rich array of materials that are simply "out there" on the web and the more formal array of OER materials that can be found. While it has not been studied, it would not be surprising to find that fully online/distance courses incorporate few sold or rented learning resources. Certainly this is true of MOOCs. As more faculty teach online, it is likely that more will find openly available, web-based resources to fuel their students' needs for learning content. Continued cost-rise of learning content produced by commercial publishers can only accelerate their search for alternatives.

Threat of Substitutes

In the academic journals market, a transformation is underway. In a nutshell, the agencies that fund research in the U.S., U.K., and E.U. are now insisting that sponsored research results be made available in journals at no cost—within a year. Outsell estimates that revenue from open-access journals will rise from $172 million in 2012 to $336 million in 2015. The number of open-access papers is forecast to grow from 194,000 to 352,000 in the same period. While this remains a small part of this $6 billion market, both the growth rate of open access materials and the intentions of research sponsors are important. As many of the leading publishers of academic journals are also publishers of college-level learning content, the loss of revenue from journal licensing must ultimately trickle down to course materials.[71]

In 2014, sales of textbooks and other educational materials (not including technology purchases) for the kindergarten-through-12th-grade market were 3% lower than in 2009 according to a survey of seven education publishers, including the biggest three, by the Association of American Publishers. Loss of revenue in K-12 will also trickle down.[72] A K-12 shift to open access materials is the likely driver of this revenue loss.

The threat to learning content publisher's core product—the new and current textbook—is substantial. Learning content rental is the most proximate threat to commercial learning content publishers. As Figure 9 illustrates, less than two-thirds of the students surveyed by the Book Industry Study Group (BISG) in 2013 identified buying a physical or digital book as their preferred strategy for acquiring required course materials. This statistic does not indicate whether those who prefer to buy would buy new books or used ones. The students surveyed show little long-term attachment to the physical book. Among those who prefer to buy, most plan to sell their book back. Since they have no long-term plans for these books, it is likely that many of those who buy and later sell their books could easily become textbook renters.

[71] "Academic Publishing: Free-for-All," in *The Economist*, May 4, 2013. Available at:
http://www.economist.com/news/science-and-technology/21577035-open-access-scientific-publishing-gaining-ground-free-all.
[72] Rachel Monahan, "How Common Core is Killing the Textbook," *The Hechinger Report*. Available at:
http://hechingerreport.org/how-common-core-is-killing-the-textbook/.

Figure 9 – Student Learning Content Acquisition Strategy | Source: Book Industry Study Group, 2013
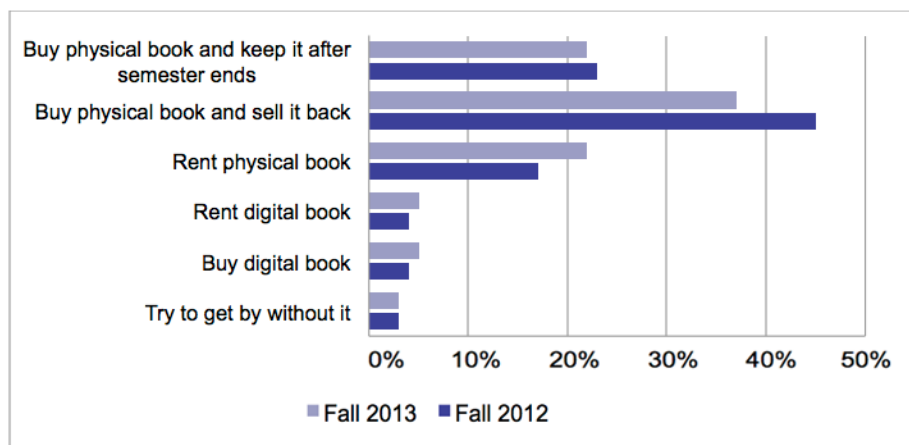
Materials openly available on the web that are not formally part of the OA or OER system are also substituting for commercial publications with increased frequency.

Less urgent, but nevertheless worrisome threats of substitution can be found in:

- Internet giants like Amazon, Facebook, Apple, Google, and others who might at any time opt to vertically integrate backwards into publishing;
- independent courseware manufacturers such as Tata Systems, an Indian developer of custom e-learning;
- course management systems that strive to regulate the flow of course content; and
- independent content curation and management firms like ACE Learning Company that provide online platforms to help faculty "select the best content for each learner while allowing institutions to align content investments with course-level learning objectives." A content curation engine that has been tuned to OER content is easy to imagine. Ultimately, CNET-style comparative rating engines might make it easy for faculty members and instructional designers to evaluate content quality and cost to student side-by-side.

Key Players

While there are a number of influential academic publishers, the higher education learning content market is dominated by **a few very large firms**.

Figure 10 – Key Academic Publishers' Total Revenues, 2013 (in $ Billions) | Source: Statistica
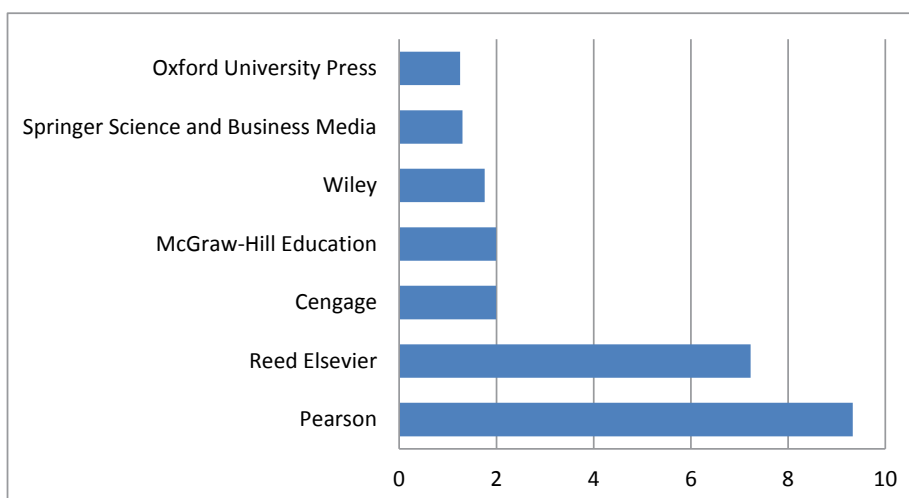
Technologies and Innovations to Watch

To remain viable for the longer term, commercial publishers must provide course materials that are demonstrably better. The static text can be and is being replicated in many general education disciplines in the OER context. OER texts, of course, win the battle on costs. For some students in some institutions, the cost battle is the ultimate battle and for these individuals and institutions, OER material is likely to trump commercial learning content most of the time.

That said, a number of innovations and technologies are essential to follow:

- **Subscription licensing and pricing.** Subscriptions are enjoying a new prominence as a revenue model for digital content. Internet companies are exploiting the opportunity to boost ARPU (average revenue per user), thanks to recurring payments from a subscriber base. Just as libraries and publishers have moved to licensing bundles of journals, it likely makes sense for publishers and higher education institutions to license bundles of learning content. To finance this new expense, colleges and universities will need to consider the adoption of student content fees. Such fees—assuming bundles are well priced—should lower the average cost of learning materials for students while increasing total revenue to publishers. Losers in this scenario are students who eschew learning content altogether or those who lower their costs by acquiring out-of-print editions. These strategies may be effective financially but are risky from an academic success perspective.
- **Adaptive or personalized learning,** discussed earlier.
- **Courseware manufacturing.** Tomorrow's "course" may be the new textbook.
- **Learning analytics**—course materials that can summarize important mastery variables like time-on-task in ways that can help teachers tailor personal interventions or help students understand, in real time, where added effort (or coaching) is needed.
- **Connection of learning content to broader learning outcomes such as competencies.**
- **Integration of learning content with testing and assessment.**

Today, the linkage between a student's successful completion of a course, module, or program, and the learning content their faculty required, is weak and speculative. If and as pressure continues to rise to increase completion and graduation rates, attention is likely to turn to course materials. It is now increasingly possible to collect and analyze data that will improve our understanding of how learning materials contribute to student learning and success. Technologies, techniques, and frameworks that support such data collection and analysis will likely grow in importance.

NACS Resource: "The Eight Steps to Providing Digital Content to Your Campus," available in The Hub (NACS member login required) or upon request to education@nacs.org

Critical Questions: Learning Content Manufacturing—Publishing

1. *What percent of your campus faculty are experimenting or using different forms of learning content (YouTube videos, online articles, etc.) or teaching styles (e.g., flipped classroom, Socratic Method, learning/group activities)? Are there members of the academic community on campus you could engage with to learn more?*

2. *Are OER materials being used or discussed on your campus? By whom? In what ways? What is your level of knowledge about, and comfort with, discussing OERs as well as the creators and repositories of these materials?*

3. *To what extent are custom print or digital course materials in use on your campus? Is this a potential growth area?*

4. *What is the status of your relationships with the industry's learning content publishers? Of their business models and future corporate direction? Are there others on your campus who are having conversations with these content providers—with or without your involvement?*

5. *Is the store seen as a resource (or the expert) on copyright and copyright clearance for learning content on campus? If not, is there a role for the store to play in this area?*

6. *Does your campus have a learning/course content strategy in development or in place? Are store leaders involved in this effort? If no to either, how can the store initiate or get involved in the campus' effort?*

7. *Are you communicating to the relevant campus stakeholders about the changes happening in learning content creation and publishing—and the potential implications for store sales, products, and services?*

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AGGREGATIO PARTICIO: LEARNING CONTENT DISTRIBUTION, WHOLESALING, AND AGGREGATION

The role of the distributor is shifting, and new business models, products and their functionality, and decisions by institutions and students on how to achieve their respective teaching and learning goals will largely determine the new players and characteristics of learning content distribution. Publishers are pursuing paths that strengthen ties directly to student and institution. Traditional players are reinventing themselves, while both start-up and entering "giants" threaten to claim the role.

Key Points:

1. The role of the distributor is shifting from logistics management of physical objects to curation, identity and access management, privacy and security management, and marketing and outreach to students. The balancing act for the hybrid distributor is managing the longstanding commercial relationship with college stores and the emerging one with students.

2. As students make increasing use of a rising number of distribution channels for learning content, the ability of the college store in negotiations with distributors is likely to grow weaker.

3. Potential substitutes threaten the existing niches occupied by distributors:
   a. Rise of the business-to-consumer (B2C) distribution model
   b. Emergence of student portals—designed to support student learning needs such as coaching, advisement, test preparation, and tutoring
   c. New academic content licensing models
   d. Rise of massive-scale course aggregators—such as MOOC platform providers EdX and Coursera
   e. A shift from buying and owning to subscribing and streaming

4. Key players include very large publishers in this space, traditional distributors like Ingram, and an emerging class of digital content distributors. Those providers with tools that facilitate faculty adoption or student discovery and acquisition will likely win the day.

5. Innovations and technologies that distributors need to track and experiment with include: subscription licensing and pricing; adaptive or personalized learning materials tied to publishers' information systems; courseware with licenses that restrict sharing, lending, renting, and resale; and learning analytics that can help teachers and students but are tethered to the publishers.

Mapping the Learning Content Ecosystem
SCORECARD
AGGREGATIO PARTICIO: Learning Content Distribution, Wholesaling, and Aggregation

Supplier Power

- Key suppliers are academic publishers and the condition of the industry is not strong

- Organic source of growth (print textbooks) is waning

- Student self-sourcing and changes in faculty use of materials reduces demand for products—weakening hold on distributers

Buyer Power

- Strength of student as buyer continues to rise in the digital age

- Increasing options—both paid and not—increase student power even more

- College stores and other retailers' power as buyer is declining due to:

  o Growth in number of distribution channels

  o Rise of business-to-consumer direct marketing and sales

  o Rise in student awareness of purchase and rental options

Rivalry Level*: 2

Rivalry centers on competition between business models and who will be served directly—retailer or end consumer.

New Entrants

- Relatively small threat of new entrants due to high capital investment and specialized technological capabilities required

- Some current industry players transitioning to fill new needs of digital distribution environment

- Amazon and other online retailers of that caliber are greatest threats to watch

Substitutes

- Threat of substitutes to be considered and monitored include:

  o Business-to-consumer (B2C) distributors

  o Emergence of student portal service providers

  o Academic content licensing models that exclude distributors

  o Evolution of MOOC platforms as content distributors

  o Influence of "subscribing and streaming" economy

  o Rise of peer-to-peer student exchanges

*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.

Distribution, Wholesaling, and Aggregation: History, Mission, and Value Proposition

Content distribution and wholesaling is nearly as ancient an endeavor as publishing. Content distributors and wholesalers play a number of important roles. These firms:

1. **Aggregate content and manage complexity.** Today, more than 20,000 publishers operate in 132 countries. In the U.S. alone, there are at least 147 academic publishers, 187 e-book publishers, 24 print-on-demand service providers, and 21 distributors and wholesalers.[73] Collectively these publishers create more than 30 million new titles a year. This content then must operate in sync with the needs and timetables of thousands of academic libraries and college stores who in turn are the emissaries and agents for thousands of students and faculty. This complex match making requires sourcing and supplying global markets as well. A small number of specialized distributors aggregate both supply and demand. These firms ensure that the right learning content reaches the right student in time for the right course. This is a complex piece of choreography that goes on behind the scenes at college stores and one that depends in part on distributor order entry, supply chain, and logistics quality. In increasingly digital markets, this depends on digital curation, content management, rights management, and identity and access control.

2. **Reduce risk.** Until the evolution of the modern book distributors, book publishing and retailing were enormously risky enterprises. The great risk for publishers was the risk of over-production and the need to both carry physical inventory or to absorb losses from unsold inventory. Bookselling too was dogged by inventory risk. Even in 1920, the inefficiency of the market was driving book sellers out of business in large numbers. One prominent publisher remarked: "Is there any other retail merchandising business in the world compelled to carry so large an assortment of items in stock, and a stock that is constantly being added to?"[74]

3. **Manage logistics.** The academic enterprise at the heart of the learning content ecosystem operates on a precise calendar. Distributors are essential to keeping libraries' collections current and to ensuring that course materials are available to students when those students need them. Distributors like the Ingram Content Group point with justifiable pride to their world-class million square foot distribution center or to their technology infrastructure for managing digital content. Managing logistics is the essence of the distributor's value proposition and their primary tool in managing the complexity of many-to-many transactions.

4. **Make markets.** By definition, distributors have a large reach and are able to extend and leverage a bookstore or library's awareness of the content landscape and extend the visibility and range of publishers' products. And in several important instances, distributors' logistical prowess allows them to operate the used course material secondary market.

5. **Provide capital.** By carrying the cost of warehousing—and in some cases the cost of the content inventory—distributors' capital is required to ensure that sufficient inventory is there to fulfill the retailers' needs in meeting student and faculty demand.

6. **Match products and markets.** In the academic library context, wholesalers and distributors are increasingly filling the gap that is created as academic libraries have downsized over the past two decades. While there is surely a wolf-guards-the-henhouse irony at play, modern academic distributors use sophisticated analytics and predictive models to package digital bundles of content titles for libraries to accept or reject on approval. These bundles are personalized to the college or library based on the institution's size, enrollment make-up, curriculum make-up, and other factors.

7. **Leverage buyer power.** There are very few distributors/wholesalers and they aggregate the demand from thousands of colleges and universities. As such, they are a check on the largest publishers and enjoy considerably more leverage than would any individual college store or library. Today, five academic publishers alone account for sales in excess of $20 billion.[75]

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[73] Publisher's Global, see http://www.publishersglobal.com/. The Ingram Content Group website claims that the distributor works with more than 30,000 publishers. See http://www.ingramcontent.com/pages/company.aspx.

[74] Charles, E. Butler, "Address to the American Booksellers Association," in *Publishers Weekly*, May 11, 1920. Mr. Butler was President of the American Booksellers Association. Available at: https://books.google.com/books?id=rV42AQAAMAAJ&pg=PA1634&lpg=PA1634&dq=is+competition+between+book+distributors+intense&source=bl&ots=IWJVjlldBY&sig=HHNGfUQi1zt961WZl-LSqD-jS6Qg&hl=en&sa=X&ei=LltXVZbxM8PmsAXGoIDQBg&ved=0CCwQ6AEwAg#v=onepage&q=is%20competition%20between%20book%20distributors%20intense&f=false.

[75] *Publishers Weekly*, "The World's 56 Largest Book Publishers, 2014." Available at: http://www.publishersweekly.com/pw/by-topic/industry-news/financial-reporting/article/63004-the-world-s-56-largest-book-publishers-2014.html.

8. **Manage digital repositories.** As more and more learning content goes digital, the format of that content becomes more diverse and therefore more difficult to manage. Issues like access and rights management, backup and recovery, and version control require new skills and resources. Many of today's leading distributors grew from origins in the database publishing sphere and not from print distribution.

Disruption of Learning Content Distribution, Wholesaling, and Aggregation

The digitization of learning content has not—in itself—been a disruptive force in learning content distribution. Today's learning content distributors generally are sophisticated and savvy about the logistics of moving both physical and virtual objects. A number of second order effects, however, are changing the dynamics within this element of the ecosystem. In particular, the digital revolution's empowerment of the end consumer has real and substantial disruptive potential even in a sphere already dominated by very large firms and high entry barriers. A variety of second-order threats to incumbent distributors can be imagined. Possible threats include the:

- **Rise of the business-to-consumer distribution model** and of the student service portal concept.
- **Growing importance of digital formats and re-balancing priority** between digital content competencies and longstanding capabilities that focus on print-on-paper learning content.
- **Growing student affiliation with Amazon** via the Amazon Campus program.
- **Success of the largest publishers' 100% sell-through model** via institution-wide licenses for entire publisher learning content libraries. This might include the integration of learning content into courseware by large publishers.
- **Evolution of MOOCs into a learning content delivery channel**.
- **Rise of OER adoption**.
- **Rise of learning content B2C subscription providers** (e.g., Spotify for Learning Content).
- **Emergence and growth of peer-to-peer exchange networks** via Facebook or otherwise that in combination with mobile payments de-couple students from both wholesale and retail institutions.

All of these threats are conceivable and many of the underlying disruptive forces are either underway or visible on the horizon. Which of them will be potent is not yet clear. It is clear that private equity is pouring enthusiastically into firms whose value propositions depend on disrupting content distribution with new pricing, bundling, licensing, or other models. That said, this corner of the ecosystem is occupied by large and sophisticated players, and they have constructed wide moats of relationship, technology, and capital to secure their niches.

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And of course disruption often finds "a third way" that is a blending of new and old models via alliances, mergers, and acquisitions. Such blending often provides incumbents with an accelerated path to innovation while providing "edupreneurs" with the capacity to achieve scale quickly. Chegg's recently-announced distribution partnership with Ingram Books demonstrates exactly how digital and print-on-paper marketing and logistics competencies can be blended via alliance.

Competitive Dynamics

Rivalry within Content Distribution and Wholesaling

The rivalry within the content distribution element of the ecosystem is more about the competition over business models than it is about firm-to-firm rivalry. Most learning content distributors are large, well-capitalized, and have competitive staying power. Historically, distribution rivals typically arose from three points of origin. One set of distributors, of course, accompanied the emergence of printing and traces its roots to 16th century Europe. In the 1960s, distributors accompanied the emergence of database services like Dialog

(originally Lockheed, now distributed by ProQuest), Thomson-Reuters, Lexis Nexis, and others. Most recently, a variety of online direct-to-student distributors have emerged to support the new and used learning content market. These relative newcomers include: Amazon, Barnes & Noble, Chegg, Half.com, Rafter, ValoreBooks, and digital only providers like Follett's BryteWave, RedShelf, XanEdu, and Vital Source.

The real rivalry within learning content distribution is over who a distributor serves directly in an increasingly digital supply chain. In a print-on-paper world, distributors create huge value by alleviating the costs and complexity of managing inventory and of providing needed discipline to the supply chain. In a digital world of instantaneous delivery and vastly reduced inventory costs, traditional distribution sources of value shift. And in a world in which learning content can now be distributed at scale directly to the end consumer, the role of the distributor shifts from logistics management of physical objects to curation (version control, data integrity management, digital tools), identity and access management (authorization, authentication of licensed users), privacy and security management, and of course marketing and outreach to students. The balancing act for the hybrid distributor is managing an emergent commercial relationship with students while continuing to foster the longstanding commercial relationship with college stores. This transitional tension is the source of a likely brisk period of merger, acquisition, and partnership activity as distributors evolve to cover print, database, and e-textbook product options and to offer both business-to-consumer and business-to-business models.

> The real rivalry within learning content distribution is over who a distributor serves directly in an increasingly digital supply chain.

Bargaining Power of Suppliers

The key supplier to learning content distributors are academic publishers. **The overall condition of the publishing industry in popular, trade, and academic arenas is not strong.** Revenues of the world's 10 largest book publishers in 2013 totaled $42 billion. This represented a revenue gain of 3.7%. That said, nearly $1.35 billion of that group's $1.49 billion year-over-year gain was realized by Reed Elsevier. Without Reed Elsevier, the world's nine largest book publishers grew at 0.3%.[76] And 2013 was not an off year. Cengage Learning filed for bankruptcy in July 2013 and emerged in April 2014. McGraw-Hill Education was sold to Apollo Global Management, a private equity firm in spring 2014. According to *Publishers Weekly,* there is little evidence that the largest publishers are attempting to grow organically by expanding into new markets. Rather, there is a significant amount of merger and acquisition activity. This is typical of mature, slow growing industries.

In a nutshell, the publishers' organic revenue growth model is under siege. Because publishers realize revenue only via the first sale of a book, they must continue to "improve" editions to differentiate themselves from the used versions of their own products. This strategy guarantees upward pressures on costs and prices despite students' $1.25 trillion in accumulated loan debt and faculty's apparently limited engagement in the new and improved supplements they offer. For a considerable time, students have been voting with their feet. NACS' Student Watch™ data suggests strongly that students are spending less on learning content every year—despite price increases. They are accomplishing this by renting, borrowing, downloading, buying foreign editions, or eschewing assigned readings altogether. Moreover, the volume of reading being assigned by faculty members is shrinking, and more and more faculty are relying on learning content available on the open web or in open educational resources. None of this bodes well for publishers and, of course, weakens their hold (and raises their dependency) on distributors.

With this said, **the largest academic publishers have no intention of abandoning the academic marketplace**. They are aware of the competitive conditions described and see the transformation of their product portfolio as their most viable path forward. Pearson Education—the world's largest publisher with 2013 worldwide revenues in excess of $9.3 billion—has for years been transforming itself into an education company. Central to the execution of this transformation has been the company's investments and acquisitions in an ecosystem that spans the universe of student services. This ecosystem includes the

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[76] *Publishers Weekly,* "The World's 56 Largest Publishers, 2014," June 27, 2014. Available at:
http://www.publishersweekly.com/pw/by-topic/industry-news/financial-reporting/article/63004-the-world-s-56-largest-book-publishers-2014.html.

company's creation of Pearson College, a degree-granting institution in the U.K. In content delivery, Pearson and the other academic publishing giants are breaking learning content into chunks, or learning objects. They are creating collections of learning objects that are fully curated, and can be driven into courses by instructional designers and faculty. These materials are often "adaptive" and are tied to analytics engines and performance dashboards that allow students and faculty to monitor and improve their rates of progress and success. The successful transition from a learning content model centered on textbooks to one centered on courseware would make it possible for very large publishers to contract directly with colleges and universities for access to entire libraries of courses and/or learning objects (for the do-it-yourselfer). Such a transition would significantly strengthen publishers' power and weaken that of distributors and potentially retail stores.

Threat of New Entrants

The threat of new entrants to the learning content distribution element of the ecosystem is small. Distribution requires a high capital investment and considerable specialized technologies. Distribution also requires relationships on both sides of the supply chain—with booksellers and publishers—that do not arise overnight. Perhaps more important, uncertainty regarding both the pace of faculty members' conversion of learning content to digital and of the end state of the academic learning content market likely will compel prospective newcomers to focus on some aspect of distribution—as Chegg is doing with marketing. If indeed distribution is moving from a B2B to a B2C industry and if their product is going digital, few firms are likely to invest in the physical plant needed to handle the distribution of printed learning content. It is more likely that firms will arise that attempt to substitute for aspects of value currently provided via integrated distribution services. Online "store" providers such as Akademos, Ed Map, and MBS Direct are examples among current in-industry players.

The elephants in the distributors' corner of the learning content ecosystem, of course, are the B2C and social networking giants. In the popular book segment, Amazon has become a publisher, distributor, and retailer establishing an unrivaled commercial relationship with tens of millions of consumers. Amazon's trusted and massive consumer access gives that firm nearly unprecedented pricing power. Its capacity to make purchase recommendations based on the analysis of mountains of end consumer data also makes the firm an Amazonian threat. Not least, the Amazon Campus initiative creates the potential for Amazon—using campus course enrollment data—to become aware of students' learning content needs at the same moment the student becomes aware of those needs. The firm's pricing power, its capacity to act on enrollment information, its Kindle hardware platform, its next-day delivery, and its ties to the campus for local distribution make it a potent new entrant. Other new entrants of this caliber include B2C giants such as: Apple, Google, Facebook, and LinkedIn. They have the consumer relationships, privacy, security and commerce capabilities, and cloud storage infrastructures to support students, if they choose. Apple and Google have dominant roles in the e-book platform arena. Google too is moving to one-day or same-day delivery capabilities, and LinkedIn is acquiring online training company lynda.com.

Bargaining Power of Buyers

There are two distinctly different buyers in the learning content ecosystem, and their competitive strength relative to content distributors is moving in opposite directions. **The strength of students as learning content buyers has risen remarkably in the digital age.** College and university students of a generation ago had little choice but to buy course materials at the college store and paid the publishers' suggested prices for these materials. While this learning content was never cheap, it was substantially cheaper than today's learning content, and a greater number of students were either affluent or enjoying G.I. educational benefits. The spectacular increase of textbook prices in the past two decades along with the emergence of digital alternatives has stimulated the rise of newcomers and substitutes in content distribution. The rise of the Internet and e-commerce has added newcomers like Chegg, Rafter, Half.com, and Amazon to the used book market. Some publishers sell direct to students and pure digital companies like VitalSource while others are adding to students' options. The bottom line is that the market for new and used learning content in a variety of forms is providing an increasing number of options and substitutes for students. Some of these options include legal and illegal download sites and peer-to-peer exchanges. Students are using these expanded options to drive down their total learning content costs—to the detriment of publishers, college stores, and old-guard distributors.

The second group of buyers in this mix is, of course, the college store and other academic retailers. **The bargaining power of college stores is declining** precisely because of the: (1) growth in the number of distribution channels; (2) rise of B2C direct marketing and sales; and (3) rising student awareness of learning content purchase and rental options. Canny negotiating between college stores and Amazon—with its enormous reach and well-established brand—has the potential to re-affirm the centrality of the college store in the learning content ecosystem. This said, the Amazon Campus opportunity can cut two ways, and success for the college store will depend on terms and conditions that create positive linkages between Amazon and the college store in the eyes of student consumers. If such links are established, the store will accrue some of the market benefits and cachet of Amazon's technical and customer relationship management prowess. If such links are not established and nurtured, Amazon alone will gain student consumer loyalty and contract-governed revenues will likely pass directly to the campus. Under such a scenario, campus business officers and provosts could—longer term—wonder why they don't simply replace all merchandise sales via a partner like Amazon.

As students make increasing use of a rising number of distribution channels for learning content, the ability of the college store in negotiations with distributors is likely to grow weaker. This is of particular concern as distributors either attempt to shift from a B2B distribution model or—as in the case of Chegg and Ingram—enter into alliances that give them B2C capabilities. Simply put, if a wholesale distributor like Ingram ever needs to choose between the needs of its partner Chegg (which has expected revenues of $300 million and whose 2015 first quarter digital content sales rose 89%) or the college store, the outcome is not likely to benefit the college store. Large B2B distributors that are not now offering direct-to-consumer services are likely to explore alliances like the Chegg-Ingram alliance. And while MOOCs have not yet become a potent

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force in the commercial learning content ecosystem, their capacity to enroll tens or hundreds of thousands of students puts them in a prime position to contract directly with large distributors. Fully online programs that span geographies also strengthen the potential influence of distributors at the expense of the college store.

Threat of Substitutes

At least five important potential substitutes threaten the existing niches occupied by distributors in the learning content-e-learning ecosystem.

Rise of the business-to-consumer (B2C) distribution model. In the learning content ecosystem's long history, the distributor or wholesaler provided the link between the large number of publishers and the even larger number of stores. Managing the relationship with the consumer—in this case, faculty members as learning content adopters and students as content consumers—was the business of the college store and/or library. This model is a business-to-business (B2B) model. The emergence and proliferation of networks, devices, digital content, digital literacy, express delivery options, and e-commerce have changed the economics of distribution. Today it is possible and profitable to sell learning content directly to consumers as witnessed by Amazon's success with popular book sales. Proving out the application of the B2C model at large scale has fueled the emergence of relatively newer firms like Chegg and Rafter that have taken on the large-scale rental, purchase, and sale of textbooks. In some cases, these firms compete with both college stores and B2B-based older distributors. In other cases, they partner with established distributors to divide B2C roles like marketing, logistics, order fulfillment, or inventory management.[77] As Amazon moves to gain direct access to students via Amazon Campus, they too hope to facilitate a transfer of student buying allegiance and to displace the B2B model and its associated distributors. And as learning content goes increasingly digital, firms like Akademos and MBS Direct are stepping in to offer campuses virtual storefronts to manage both the faculty adoption and the student order fulfillment processes.

[77] Sarah Buhr, "Chegg Strikes Distribution Partnership with Ingram Books, Announces 15% Boost in Earnings from Digital Services," in *Tech Crunch*, August 4, 2014. Available at: http://techcrunch.com/2014/08/04/ingram-books-strikes-distribution-partnership-with-chegg/.

Emergence of student portals. Second, many of the newcomers are building their own ecosystems designed to support a student's many needs—coaching, advisement, test preparation, tutoring, and so forth—in the hope of becoming attractive "student portals." To the extent that they are successful in acculturating students to this model, they loosen the grip that distributors currently enjoy on used book buybacks and one of the key ties between students and their college store.

New academic content licensing (or course fee) models. Third, very large publishers—recognizing both the rise of online and distance learning and the revenue threats posed by rentals, piracy, used books, OER, and the open web—are developing new institutional academic content licensing approaches designed to capture 100% sell-through and to displace the distributors, used book aggregators, and others (and to head off Amazon).[78] What NACS calls "the new content licensing model" becomes extremely salient if the textbook itself (or its derivatives) is ultimately integrated with or subsumed into courseware. While there are many obstacles in the path of this potential development, the large and hard-to-manage adjunct faculty workforce and the pressure to improve student success will buttress the arguments in favor of this approach. Graduate level distance education programs that make extensive use of adjunct instructors are likely to find the imposition of course material fees both appealing and politically palatable.

> **NACS Resource:** "Academic Content Licensing White Paper," available in
> The Hub (NACS member login required) or upon request to education@nacs.org

Rise of massive-scale course aggregators. Fourth, as some higher learning programs (e.g., general education, professional certificates, MBAs) go online at scale, MOOC platform providers such as EdX, Coursera, FutureLearn, Udacity, and Udemy have the potential to evolve as large-scale learning content creation and dissemination companies. As the line between courseware and course materials blurs and disappears, MOOCs may either compete or partner with distributors. To the extent that the politics and/or business models of MOOCs prefer OER or even self-published materials, they could threaten commercial publishers, distributors, and retail bookstores.

From buying and owning to subscribing and streaming. Fifth, there are new firms like Bookboon, new practices like Amazon's Kindle Unlimited program, and evolving "chunk" libraries like Pearson's Collections that make learning content available via subscription or by "the snippet." New bundling and pricing schemes are not yet widely available for learning content, but are likely to follow paths blazed in other content industries. In industries or areas like academic library acquisitions, film, television, software, and recorded music, subscribing and streaming seem to be overtaking buying and owning. This trend reflects both the superior economics of cloud computing and growing concerns about digital privacy and security. Again, the subscription model is best leveraged by digital content and under the B2C model, although institutional licensing is really a B2B subscription alternative. To the extent that newcomers are able to aggregate bundles of academic titles and rights to license those bundles to consumers, such newcomers could threaten established distributors.

Rise of peer-to-peer student exchanges and m-commerce. Last—and more speculative—the development and proliferation of smart devices, apps, mobile commerce, and social networks have created conditions that will enable peer-to-peer transactions of all kinds. This technological convergence will likely power a host of new content distribution substitutes. Imagine student-centered or even student-operated peer-to-peer networks that have been optimized for the buying and selling of learning content. Apps could gather—like CNET, Kayak, or ePinion—reviews and prevailing price information from the local college store, Chegg, Rafter, and others to help student sellers set attractive alternate prices. Geolocation technologies could bring buyers and sellers together just as they bring Uber cars and passengers together. ApplePay, Bitcoin, Square, or any number of transaction apps could facilitate a cashless purchase and sale. In such a scenario, there is no institutional player, except perhaps as a host of an exchange site. This might be Facebook or any other virtual student haunt. Even more speculatively, it is now easy to imagine how imbedded RFID technology could make it possible for an entrepreneurial student to "rent" his or her course materials when they are not in use. Available materials could announce themselves to a social commerce site and students could operate a fee-based lending library inside their dormitory commons or other shared spaces.

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[78] Edith Starzyk, "Academic Content Licensing: Concepts and Considerations for a New Course Content Model." Oberlin: National Association of College Stores, April 2014.
Available by request to education@nacs.org or in The Hub for NACS members.

Key Players

Many of academia's largest and most important publishers remain large enough to maintain their own marketing and sales organizations. **Very large publishers like Pearson are themselves becoming distributors** via their "custom" learning content products. That company's ability to curate learning content at the "chapter" level, to manage copyright clearances and royalty payments, and to employ reader analytics and adaptive learning techniques puts them in a position to create and distribute unique and highly customized hybrid e-textbooks and course packs.

When or if publishers rely on distributors, it is chiefly to distribute inventory risk and manage logistics. **Ingram Book Company** is one of the big kids on the block, offering immediate access to more than two million titles. Ingram is a wholesale provider for more than 71,000 retail book stores and libraries globally. The **Follett Higher Education Group** focuses on e-commerce, digital offerings, and textbook rentals. College-level learning content wholesaling and retailing are core areas of this $2.7 billion, privately held company. Follett serves more than five million students at its more than 1,600 physical and online stores. The Chicago Distribution Center (CDC) of the University of Chicago has provided distribution services since 1991 and serves nearly 100 prominent university presses. The Chicago Digital Distribution Center (CDDC) has been offering digital printing services and the BiblioVault digital repository services to book publishers. Other players to watch include: Akademos, Amazon, Chegg, MBS Direct, and Rafter. As more of higher education's commercial learning content goes digital, companies like RedShelf and Vital Source are likely to rise in

> Providers with tools that facilitate faculty adoption or student discovery and acquisition will win the day. Businesses that fashion the most "intimate" relationship with students and faculty will prosper.

influence. And it is worth understanding the academic distribution world of the libraries. In this world, there has been ongoing consolidation. Moreover, firms like ProQuest and EBSCO are competing not only based on catalog size, price, and logistics, but increasingly on content management and digital tools for both libraries and for researchers. College store operators should note with interest the possible value of building tools that bind faculty members to the store. Akademos, for example, claims that their Textbook Adoption Tool℠ is the only website to aggregate traditional, OER, and digital/e-books to help faculty find and compare high quality, more affordable texts. But similar services are coming to market soon from other companies (at the time of this writing). Akademos' "affordability index" rates textbook affordability by list price, peer ratings, and reviews. It is likely that as competition within the ecosystem intensifies, those providers with tools that facilitate faculty adoption or student discovery and acquisition will win the day.

And of course **Amazon**, now representing that "whether you are a university looking for a provider to manage textbook distribution on campus, or an independent bookstore looking to expand the scope of retail services offered to your students, Amazon Campus can tailor a suite of services to meet your needs."[79]

Technologies and Innovations to Watch

It seems likely that the big race in learning content distribution will be won on the value disciplines of customer intimacy and operational excellence that were described by Michael Treacy and Fred Wiersema.[80] As learning content goes online the publisher, distributor, or bookseller who is able to fashion the most "intimate" relationship with an institution's students or faculty will prosper. This will of course include expanded marketing outreach but will hardly stop there. Customer intimacy in the digital age is to a very great

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[79] Amazon Campus website. Available at: https://www.amazon.com/gp/campus/info.

[80] Michael Treacy and Fred Wiersema, "Customer Intimacy and Other Value Disciplines," in *Harvard Business Review*, January-February 1993. Available at: https://faculty.fuqua.duke.edu/~moorman/GeneralMills/Section2/Section2Documents/CustomerIntemacy.pdf.

extent about data mining and analytics. Developing a deep and nuanced understanding of students' and faculty members' needs is the keystone in a digital-first service architecture. Beyond that, of course, one must have operations that are prepared 24/7 to execute quickly, correctly, and in "hassle-free form" on those needs. To the extent that faculty members need skilled and efficient advice on learning content titles, quality, and prices, it will no longer be competitive to rely solely on staff subject matter advisers. Today's faculty members do not view the college store as a source of sound advice on learning content options. It's likely that only by creating or contracting for a shared app like Akademos' Textbook Adoption Tool℠ will the college store become better understood and appreciated by the faculty they support. And only by knowing their students' course material needs at the point of registration—and acting on these needs—will stores, distributors, or publishers become students' provider of choice.

Learning content distributors, like publishers, need to track and experiment with a number of innovations and technologies. College store leaders should be vigilant of these as well. They include:

- **Subscription licensing and pricing.** Just as many will be a "race for the student," many will engage in a "race to the provost" to create institution-wide licenses to portfolios of learning content. Subscription pricing and bundling have the capacity to greatly simplify sales and support activities around learning content.
- **Adaptive or personalized learning materials** may be tied to publishers' information systems making them harder for 3rd parties to distribute.
- **Courseware.** As mentioned, tomorrow's "course" may be the new textbook. Courseware licenses— unlike book ownership—can restrict sharing, lending, renting, and resale.
- **Learning analytics** that can help teachers tailor personal interventions or help students understand— in real time—where added effort (or coaching) is needed will also tether course materials to their publishers.
- **Learning outcomes.** Publishers and distributors will be expected to map the learning outcomes delivered by the products they represent with those specified by the college, university, district, or system they are selling to.
- **Testing and assessment materials** have become far more than problem sets in the back of the book and may require technical integration with the original publisher of the related learning content.

As mentioned, the current linkage between a student's completion of a course and the learning content that was assigned is weak and speculative. In the future, learning analytics will not only serve to make learners more successful, they will be used to make learning content more effective. This is made possible by the very large number of students engaging in the content and in assessments. Smart learning content will illuminate where students are struggling and why. Sometimes the material itself adds to the struggle. New content will create, expose, and close feedback loops around learning content effectiveness. And again, this functionality may tie learning content to its original publisher.

Critical Questions: Learning Content Distribution, Wholesaling, and Aggregation

1. How would you characterize the relationships between your store and industry distributors? Who on your staff manages those relationships and monitors changes in this space?

2. What conversations are happening on campus related to content licensing or other models that might 1) exclude the store or other players in the distribution chain and/or 2) benefit from expertise that store staff can offer?

3. How is your store strengthening its relationship with students around learning content, course materials, and digital learning products to mitigate the impact of student self-sourcing? Is your store serving as a course materials/learning consultant for students? For faculty?

4. Which Potential Substitutes and/or Technologies and Innovations to Watch present potential opportunities for your store? How will you evaluate and prioritize each? How do you get started?

5. Is your store an active participant of the learning content and learning analytics discussions happening on your campus? If not, why? And how do you become involved?

6. Who are the key players on your campus with whom you need to establish and maintain relationships?

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MERCATURA: LEARNING CONTENT RETAILING

The long-standing mission of the college store to ensure availability of adopted course materials for purchase has evolved to include provision of other products and services that support and facilitate student learning and enhance the campus experience for all. Current and emerging trends in higher education, learning content, and retailing suggest another evolution is due for college stores that want to remain relevant to their campuses and the students they serve. Important choices must be made about products, services, strategic partners, and the role of the college store in the campus enterprise.

Key Points

1. The missions of college stores have evolved and vary in their particulars with the institutions they serve. Certainly they serve as an indispensable resource to faculty and students in assuring adopted learning content is available. Additionally, they advise on media options, offer a range of acquisition alternatives, and accommodate students' varying financial needs.

2. Since the turn of the 20th century, at least four major disruptions have affected the retail selling of learning content: Bookstore chains, e-commerce and the online bookstore, e-books, and an evolving disruptor forming at the intersection of emerging e-market hubs, mobile payments, and the so-called sharing economy.

3. In no other element of the ecosystem have the competitive dynamics been changed so profoundly due to digital disruption. Continued maturation of digital learning content, mobile commerce, and the emergence of digital learning services is likely to keep them in a heightened state of flux for the foreseeable future. Three key themes dominate the digital disruption:

   a. empowerment of the consumer;

   b. advantages that accrue to booksellers who can leverage both purchasing power and operational economies of scale; and

   c. growing capacity of online booksellers to leverage customer data and new online services into customer experiences and relationships.

4. Retail operators increasingly understand that they must configure their systems and operations to shift from being a transaction broker to a partner.

5. Unless Amazon chooses to become a full-service contract brick-and-mortar retail operator, it will compete as it always has—on price and convenience. Independent college stores in the context of this escalating competitive rivalry are unlikely to be able to compete on price, but instead must continue to leverage their institutional connection.

Mapping the Learning Content Ecosystem
SCORECARD
MERCATURA:
Learning Content Retailing

Supplier Power

- Declining, unless:
  - o Supplier sells to the institution
  - o Learning content is imbedded in courseware

Buyer Power (Includes Faculty Recommenders)

- Increasing: more channels, more options, more marketplaces, etc.
- Course materials fee + institutional content
- Licensing could be game changer
- Increasing rivalry and concentration of "buying" power will allow "giants" to squeeze publisher profit margins

Rivalry Level*: 4

Midway through a transformation to leave "minnows" and "giants." Competition on all levels and escalating.

New Entrants

- Amazon Campus
- Pay for snippets
- Barnes & Noble + Flashnotes?
- Uber/Lyft for textbooks?
- 3rd party content curation hubs
- Edu services hubs/integrators

Substitutes

- OER
- Library e-reserves
- Informal content (e.g., YouTube and Khan Academy)
- Content exchanges
- Sharing economy (think Uber for textbooks)
- Mobile payments may be game changer

*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.

Content Retailing: History, Mission, and Value Proposition

Bookselling is an ancient profession. While popes, kings, and others in much of the West endeavored to control the flow of the written word, these efforts failed and the notion of a free press became a core element of a democratic government. In America particularly, our beliefs of a free press bear the imprint of bookseller, newspaperman, and pamphleteer Ben Franklin. Even today, the notion that "information wants to be free" remains the battle cry and premise of the open information movement.

Until the 19th century, publishing, wholesaling, and retailing books, periodicals, pamphlets, and other content were often parts of the same craft. By the early 19th century the business simply became too complex. The distinction between publishers and booksellers became fundamental. Publishers focused on content editing, design, manufacturing, and promotion; while booksellers focused on either the wholesale or retail trade in published goods.

Since the advent of a free trade in books, retail bookselling has been highly fragmented—a specialized industry presided over by individuals who combined knowledge of books and the wholesale book trade, with a sensitivity to the reading tastes and preferences of their local customers. College bookstores are an outgrowth of that sensitivity to the needs and preferences of a specialized clientele. In 1825, Kenyon University's founder and first president, Philander Chase, wrote, "School books cannot be had in our poor country 'bookstores.'" He asked: "Is every young man to send hither and thither for a book and perhaps be obliged after all to send to the East before he can be accommodated? Surely not. We must have a bookstore belonging to the Institution."[81] The bookstore Chase founded is the nation's longest continuously operating college bookstore, and the third-oldest bookstore of any kind in America. Providing learning content has for nearly 200 years been fundamental to the mission of the college store and to the life of the college, university, and students it supports. President R. Albert Mohler of the Southern Baptist Theological Seminary went so far as to argue: "If the college you visit has a bookstore filled with t-shirts rather than books, find another college."

The missions of college stores have evolved and vary in their particulars along with the colleges and universities they serve. This mission is, in part, to be an indispensable resource to both faculty and students in assuring that adopted learning content is available where and when it is needed. As the number of learning content options has expanded, so has the college store mission—to include providing advice on media options, providing a range of acquisition alternatives, and accommodating students' varying financial needs. While the core value proposition of the college store has always been its integration with the course planning process and on-campus geography, increasingly value is being derived from the integration of the college store's processes and systems with other faculty and student-serving enterprise systems.

Disruption of Learning Content Retailing

The selling of learning content—particularly in college stores—was a stable activity and industry segment for 150 years. College stores became a standard feature of U.S. colleges and universities, and grew in number along with the growing number of U.S. institutions. These stores grew in size as U.S. postsecondary enrollments soared. Moreover, most college stores also expanded the scope of their retail operations responding to a broad range of student consumer needs ranging from branded clothing to sundries to slide rules, calculators, and computers.

Since the turn of the 20th century, at least four major disruptions have affected the retail selling of learning content:

- **Bookstore chains.** Rooted in the college store with NYU's Leonard Riggio's opening of the Student Book Exchange (SBX). Riggio went on to acquire a failing Manhattan bookstore called Barnes & Noble (B&N). Barnes & Noble, in addition to operating a university learning content exchange, was the first bookstore to advertise on television and the first to sell books below the publisher's recommended

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[81] Kenyon College, "Welcome to the Kenyon College Bookstore." Available at: http://www.shopkenyon.com/.

list price. Today, the B&N chain operates approximately 700 brick-and-mortar retail bookstores in 50 states and 636 college bookstores across the U.S. Other bookstore chains introduced the "super store" concept and were effective using point-of-sale (POS) data capture to manage the supply chain and to gain insight into customer preferences.

- **E-commerce and the online bookstore.** On Aug. 11, 1994, the *New York Times* covered the story of a man who sat down in front of his computer, entered his biographical and credit card information, and purchased Sting's "Ten Summoner's Tales." It was the first commercial transaction to take place on the Internet. By 1995, Amazon went live with Jeff Bezos' $300,000 bootstrap investment. By mid-1996, that company already received more than $6 million in venture capital. And the face of retail was transformed. In 2011, bookselling giant Borders filed for protection under Chapter 11 and by 2013, liquidation of that firm began.

- **E-books.** The concept of the e-book and e-readers can be traced to World War II with Vannevar Bush, who conceived the "memex" as a way for individuals to store and read increasing amounts of available information. Project Gutenberg started digitizing texts in 1971. E-book reading remained a somewhat obscure academic pursuit until real progress was made in readers that could be used widely. Wide use depended on both accessible pricing and usability. Reading devices stumbled until 2004 with the introduction of electronic ink in Sony's Librie. Soon thereafter, the Amazon Kindle added traction to the e-book market. In education, Canada's Blythe Academy became the first school to provide its students with e-readers fully loaded with their required textbooks.[82] As of January 2014, more than one-third of all U.S. adults 18 years old or older owned an e-reader and U.S. e-book revenues exceeded $5.5 billion.

Figure 11 – Percentage of U.S. Adults
18 Years Old or Older Who Own an E-reader
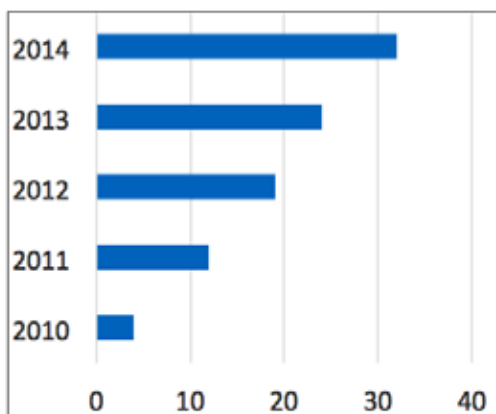
Source: Pew Research Center

Figure 12 – U.S. Sales of E-books (in USD Billions)
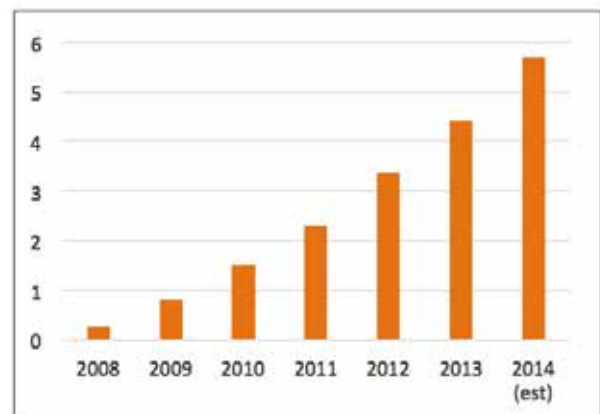
Source: PricewaterhouseCoopers

A fourth major disruption is emergent; this one forming at the intersection of emerging e-market hubs, mobile payments, and the so-called sharing economy.

The effect of these disruptions and their associated innovations on bookselling and all elements of the learning content ecosystem has been dramatic. Since 1990, the number of independent bookstores in the U.S. has dropped by more than one-half to fewer than 2,000 stores. By 1994, Barnes & Noble and the Borders Group had captured a quarter of the $19 billion worth of books bought by Americans. Independent stores' collective share of that market had declined to just over one-fifth.[83] By 2014, Amazon book sales alone totaled an

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[82] Michael Kozlowski, "A Brief History of eBooks," May 17, 2010. Available at: http://goodereader.com/blog/electronic-readers/a-brief-history-of-ebooks.
[83] Steve Wasserman, "The Amazon Effect," *The Nation*, May 29, 2012. Available at: http://www.thenation.com/article/168125/amazon-effect.

estimated $5.25 billion.[84] E-books now make up nearly 30% of all book sales, with Amazon accounting for 65% of all e-book sales.[85] Many college and university stores are now operated under contract with national firms like Barnes & Noble and Follett. One independent publisher astutely observed that "in the era of the Kindle, a book costs the same price as a sandwich…Amazon has successfully foster the idea that a book is a thing of minimal value… "[86] For higher education, academic publishers, and college stores, the perceived de-valuation of the book exacerbates the real concern regarding rising textbook costs.

> For higher education, academic publishers, and college stores, the perceived de-valuation of the book exacerbates the real concern regarding rising textbook costs.

Competitive Dynamics

In no other element of the learning content ecosystem has digital disruption so profoundly changed the competitive dynamics as in the content retailing arena. Even more, the continued maturation of digital learning content, mobile commerce, and the emergence of digital learning services is likely to keep these competitive dynamics in a heightened state of flux for the foreseeable future. Three key themes dominate the digital disruption of content retailing:

1. **the empowerment of the consumer** with a proliferation of choices for media, modes of delivery, channels, license/ownership arrangements, and price points;
2. **the extraordinary advantages that accrue to booksellers who can leverage both purchasing power and operational economies of scale** (inventory, shipping, handling, data processing); and
3. **the growing capacity of online booksellers to leverage customer data and new online services** into customer experiences and relationships that equal or exceed the best brick-and-mortar store experiences and relationships.

Key Trends

The key trends in learning content retailing include:

- **Digital Future**—Faculty members surveyed by NACS expect students to favor digital learning content in five years or less. Products like Pearson MyLabs, Cengage's Aplia, and WileyPLUS will Connect are already key sellers and popular with students. Several interviewees agreed with Ashland University's Director of Information Technology, Bob Matney, who argued that "students will drive the move toward more electronic delivery; they will demand it. If the faculty is not using the whole text, students will want to pay for only what they use for the class." Publishers expect course materials to deliver a commercial grade user experience; enterprise-grade software; academia-grade delivery models; and imbedded pedagogy and analytics to inform student, faculty, and institutional decisions and actions. Printed learning content will be unable to keep pace in the intermediate term. Faculty resistance, usability, digital divide, accessibility, technical support, academic serviceability, and a host of other issues will need to be overcome. Higher education will be motivated to overcome these issues as declining print sales create dis-economies of scale, increasing the cost of traditional textbooks at an even faster rate.
- **Flat or Declining Sales**—Faculty are assigning less reading and students are reading significantly less than their counterparts 50 years ago. Students are savvy Internet shoppers and aggressive consumers. Textbooks are not an element of an institution's published sticker price and are viewed by students as a discretionary or unbudgeted expense. Students have been and will continue to craft their own solutions to the course materials affordability problem. Value shopping student behaviors, increasing faculty awareness of prices and OER, growth in the number and quality of OER titles, the arrival of Amazon in the college store market, and other factors will dampen demand for new textbooks.

84 Jeff Bercovici, "Amazon vs. Book Publishers, by the Numbers," *Forbes*, February 10, 2014. Available at: http://www.forbes.com/sites/jeffbercovici/2014/02/10/amazon-vs-book-publishers-by-the-numbers/.

85 George Packer, "Cheap Words: Amazon is Good for Customers. But is it Good for Books?" in *The New Yorker*, February 17, 2014. Available at: http://www.newyorker.com/magazine/2014/02/17/cheap-words.

86 Ibid. quoting Mr. Dennis Johnson.

- **OER Rising**—While the open education resources movement has itself moved in fits and starts, its counterparts—open source and open content—in software and academic serials are making dramatic headway. Leaders of the OER movement now understand that they need to focus on faculty awareness, a robust and high quality product portfolio, sustainable business models, student success, and academic policy to gain momentum. They are working increasingly with influential philanthropies and private equity firms. And while they remain focused on filling out and promoting a product portfolio with open source textbooks, they are aware—as one leader states—that "in the next five years, courseware—the blending of content, technology delivery platform, and deliberate, effective instructional design—will be pervasively adopted."

- **Publisher Shift**—One publisher consulted for this study confided: "The textbook is dead; they just don't know it yet." While this was colorful hyperbole and sweeping changes in practice likely will lag changes in technical capability, the core point seems correct. Lecture capture, MOOCs, and other changes in teaching and learning practice are showing that many students are happy to "flip" lectures, speed them up, view them at 2:00 a.m., and otherwise "rip, mix, and burn" in ways that suit their needs. Future college students will expect learning materials to link to videos, to initialize simulations, to contain actionable datasets, or even project holograms. The bookstore's historical value of assuring the on-time delivery of physical media and the operation of a book exchange carry little weight in this changing landscape. As personalization of learning content gains momentum, publishers will have access to detailed student information making it possible to trump both brick-and-mortar stores and Amazon in tailoring an exceptional and successful experience and a suite of services on behalf of students.

> Students today consume learning content on smartphones, e-readers, open campus workstations, television screens, laptops, and other devices. In time, learning content will simply follow students from room to room and building to building.

- **Horizontal Integration**—As textbooks go digital and the traditional bookseller sources of value are reduced, booksellers, publishers, and others will attempt to restore, replace, or leapfrog lost value by bundling learning services with learning content services. In the past six months, book rental giant Chegg allied with Ingram to shift out of the business of handling logistics of print textbooks and instead become a digital student service hub where digital learning content is only one service offered along with tutoring and others.[87] Valore recently acquired Boundless, an online/mobile course materials company. The combined company, which expects 2015 revenues in excess of $100 million, offers an online student loan comparison site, a rewards program for helping to pay down student loans, and ValoreBooks, which aims to offer more affordable textbook rentals along with savings on new and used textbooks.[88] The fuel for much of this integration is the hot EdTech start-up market that features companies like Course Hero (an online source of study guides, class notes, past exams, flash cards, and tutoring services) which offer clear synergies with learning content sales or rentals.

- **Mobile Future**—The future of learning content is not only digital, it is mobile. Untethered digital technologies mean that our learning platforms, course materials, and student services (Professor Siri?) are always with us. There is increasing evidence that screen reading is predisposing us to a pattern of short interactions with content and away from deep and sustained reading. Students today consume learning content on smartphones, e-readers, open campus workstations, television screens, laptops, and other devices. In time, learning content will simply follow students from room to room and building to building as display screens become ubiquitous, as learning applications and data move to the cloud, and as the Internet of Things (IoT) imbeds technology that helps buildings ascertain a

[87] Sarah Buhr, "Chegg Strikes Distribution Partnership with Ingram Books," in *Tech Crunch*, August 4, 2014. Available at: http://techcrunch.com/2014/08/04/ingram-books-strikes-distribution-partnership-with-chegg/.
[88] Kyle Alspach, "Boundless Acquired by Valore in Boston Ed Tech Consolidation," in *BostInno*, April 6, 2015. Available at: http://bostinno.streetwise.co/2015/04/06/used-textbooks-site-valore-acquires-ed-tech-app-boundless/.

student's identity and authorizations. Learning content—like music today—will be in the air students breathe. Of course, some of the air they breathe will be in retail environments. These environments too must leverage mobile technologies to further educate and empower their in-store customers.

- **The Retail Relationship**—We have already witnessed a shift to thinking about the customer experience. Tomorrow's retailer—on-ground or online—must make sophisticated use of data about its customers and products to craft both positive, memorable experiences and durable and ongoing relationships. NACS data is clear that patronage of the college store is far lower among seniors than freshmen. Is this an artifact of the nature of learning content in those college years, or are college seniors making different decisions based on a larger base of experience? We know that showrooming is now a mainstream shopping behavior and that many of our customers are price checking merchandise against online alternatives in our stores. This is rational economic behavior and is unlikely to be overcome if one is merely brokering transactions. In a transaction bakeoff, the lower cost (time + money) transaction typically wins. Retail operators increasingly understand that they must configure their systems and operations to shift from being a transaction broker to a partner. Amazon provides a high quality (1-click) transaction experience. What turbocharges Amazon sales, however, is the relationship it forms via book clubs, review sites, surveys, reward programs, and other strategies. What equivalents are or should be standard for college stores?

Rivalry within Learning Content Retailing

The learning content retailing industry is perhaps midway through a transformation that will likely leave only minnows and giants. Giants like Amazon leverage purchasing power, technology, and production scale to pricing advantage few can touch. As well, Amazon's online customer relationship management prowess may be without peer. That giant understands that today's college students are the consumer demographic of choice for the company's mainstream business for decades. In early 2015, Amazon partnered with Purdue University, the University of Massachusetts at Amherst, and the University of California Davis. The *Wall Street Journal* reiterated NACS' characterization of the move as "Amazon's opening salvo in a bid to capture some of the $10.3 billion spent annually in college bookstores."[89] Longer term, it's likely that Amazon—the owner of 65% of the market in e-books—believes that college-level learning content will go digital to that company's advantage. College store operators Barnes & Noble and Follett will compete intensely with Amazon for continued status as giants in the learning content retail industry. Unless Amazon chooses to become a full-service contract brick-and-mortar retail operator, it will compete as it always has—on price and convenience. Such competition will squeeze learning content margins adding risk to the brick-and-mortar college store business. Chegg will compete directly with Amazon as an online supplier of rented learning content. Chegg will seek to enlarge its giant status by focusing on students and competing with services tied to providing rented learning content. This intensification of rivalry and concentration of "buyer" power will spill into the publishing arena with retail giants exerting pressure on publishers' profit margins.

> Independent college stores in the context of this escalating
> competitive rivalry are unlikely to be able to compete on price, but
> instead must continue to leverage their institutional connection.

Independent college stores in the context of this escalating competitive rivalry are unlikely to be able to compete on price, but instead must continue to leverage their institutional connection. Like Chegg, independent college stores can become part of a web of services designed to enhance the student's success and her/his experience. Close integration with the institution's core enterprise systems—tying registration to reading requirements to seamless ordering and delivery—can distinguish the campus store from the giants. Similarly, close partnerships with the campus library, student academic services, and other campus providers can create cohesive solutions that those who are not inside the "family" cannot.

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89 Greg Bensinger, "Amazon Makes a Push on College Campuses," in *Wall Street Journal*, February 1, 2015. Available at: http://www.wsj.com/articles/amazon-makes-a-push-on-college-campuses-1422825521.

Bargaining Power of Suppliers

The bargaining power of suppliers may either diminish or expand depending of which of two scenarios play out (or both) and to what degree. To the extent that learning content suppliers to bookstores—wholesalers/distributors and publishers—continue to keep the accent on sales of new and used textbooks, it is likely that their bargaining power will diminish. The entry of Amazon, the continued shift to digital, growing faculty awareness of affordability, the potential emergence of a robust OER supply alternative, and students' increasing unwillingness to absorb rising textbook prices, all conspire against suppliers' pricing power. And if college stores are able to forge alliances with their campus libraries and others to identify and expose alternative sources of, or approaches to, learning content, supplier power will be further diminished.

On the other hand, if published digital learning content evolves to become an enterprise-caliber, cloud-based, consumer-grade offering that includes adaptive learning, transparent and effective learning design, and actionable analytics, then not only is publisher or distributor pricing power preserved, it is enhanced. Moreover, if this occurs and is embraced by the faculty as a time saver and a contributor to better student outcomes, data from student course enrollments, time-on-task, etc. will make it possible for publishers to forge student relationships that leave out the distributor or college store. Alternatively, digital learning content that addresses personalization, learning outcomes, learning design, and analytics is more likely to become an institutional concern and licensing decisions may move to the academic affairs side of the institution. This is particularly true of institutions that make substantial and widespread use of adjunct faculty and where the variability in learning design, data capture, and assessment may be unacceptably high.

Threat of New Entrants and the Threat of Substitutes

The demise of iconic independent bookstores like Cody's in Berkeley is likely to discourage newcomers from entering the brick-and-mortar learning content business. Similarly, **the huge capital outlay needed to compete with giants like B&N, Follett, and Amazon is likely to scare off most would-be newcomers to the learning content market**. More likely, entrants to the learning content ecosystem will come from the ranks of those "edupunks" and "edupreneurs" who advocate "an approach to teaching that avoids mainstream tools…and instead aims to bring the rebellious attitude and DIY ethos of '70s bands like The Clash to the classroom."[90] Conventional textbooks and learning content are precisely the mainstream tools these innovators are rebelling against.

EdTech, which encompasses new-age learning content, is a hot ticket. Education venture and equity financing increased 55% to $1.87 billion in 2014.[91] New entrants from EdTech are unlikely to either produce or hawk traditional learning content. More likely they will be companies like Quizlet (which provides shared learning tools from students worldwide), Course Hero (which provides online study guides, class notes, past exams, flash cards, and tutoring services to five million students), or the dozens of self-publishing platform and tool providers like LeanPub, Smashwords, Draft2Digital, Kobo, Lulu, and others. EdTech constitutes what Kevin Carey calls "A thriving ecosystem of non-profit and for-profit organizations [that] will develop around the core education providers, offering students a range of services to support, facilitate, and improve their educational experience."[92]

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[90] See Anya Kamenetz, *DIY U: Edupunks, Edupreneurs and the Coming Transformation of Higher Education*.
New York: Chelsea Green Publications, 2010. Tom Kuntz is credited with coining the term edupunk and is quoted here.
[91] Ainsley O'Connell, "Edtech Funding Soars to Nearly $2 Billion," in *Fast Feed*. Available at:
http://www.fastcompany.com/3040805/fast-feed/edtech-funding-soars-to-nearly-2-billion.
[92] Kevin Carey, *The End of College*, 2015. New York: Riverhead Books.

The threat of new entrants, therefore, is really the threat of re-invention or substitutes. The convergence of digitization, high textbook prices, evidence that students are studying less, and our understanding that only one-third of students may in fact be reading what is required altogether creates a near perfect case for disruption. Disruption initially targets the low-end; that is, the students who may be reading little or even eschewing required learning content altogether due to cost. Such students will accept relevant, if inferior substitutes—at the right price. Over time, as Christensen argues, the inferior substitutes get better and better but retain their appeal as low-cost alternatives.

Bargaining Power of Buyers

The power of the faculty to dictate a student's learning content consumption has been slipping for decades. Grade inflation, faculty time in advising roles, and the rise of helicopter parents and student consumerism all contribute to weakening the authority of the faculty in the classroom. As well, the remarkable growth of do-it-yourself learning via a near-infinite number of tools and pathways reduces the consequences to students who seek out alternative (and cheaper) paths to academic success. Of course not all of these alternative pathways are successful, but we have been unable to find any studies that correlate non-compliance with requirements to acquire specific course materials and academic failure. We simply don't know whether students who do not acquire materials do not read them, or whether they borrow such materials from others.

> If the link between complying with faculty reading requirements
> and grades is broken, certain students will craft their own
> learning content mix with increasing boldness and frequency.

In any case, students are being more and more acculturated to DIY learning via YouTube and other resources, and the decline in reported student spending on learning content (particularly in the face of rising prices) suggests strongly that many students are simply finding another way. This suggestion is strengthened by the knowledge that student success indicators—retention, completion, grade performance, graduation—are not declining along with declining expenditures on course materials. To the extent that this pattern becomes socialized among students, their power as buyers will grow. That is, if the link between complying with faculty reading requirements and grades is broken, certain students will craft their own learning content mix with increasing boldness and frequency.

Students are also more savvy than faculty members, store operators, librarians, and others at finding hacks, workarounds, and other Internet solutions. One university executive in Canada reported that students at his university routinely found textbook editions on websites in India and purchased them for pennies on the dollar of U.S. current editions. Behaviors like these coupled with faculty members' low utilization of the digital supplements that often account for the high cost of a textbook's latest edition encourage non-compliance, weaken faculty influence, and strengthen the student-as-consumer.

Finally, students are adept at mobile computing, mobile commerce, social networking, and e-commerce. It is not unlikely that students (and all e-literate consumers) in the future will have apps that make them mobile buyers (Apple Pay, Wallet, etc.) AND mobile sellers. The transaction cost and other hurdles to becoming a mobile digital merchant are rapidly disappearing. This combined with the emergence of digital marketplaces and hubs will make it easy for students to buy and sell course materials without the inconvenience or overhead of using a store or other intermediary. Of course when commercial learning content is digital, publishers' license terms and IT-based security measures will reduce the informal trade in learning content.

Key Players

Amazon is the big dog in this race. Robin Report CEO Robin Lewis made a provocative prediction in his report "Walmart Can Crush Amazon." Lewis argues that Walmart can defeat Amazon because, "to its advantage, Walmart already has the most important (and costly) part of the 21st century retailing infrastructure in place: its stores."[93] Amazon is moving to attack the brick-and-mortar retail giants' advantage by experimenting with drones and by seeking low-cost brick-and-mortar outlets of its own. Campuses are ideal beachheads for such a strategy. If this is correct, Amazon may have more at stake on its Amazon Campus than meets the eye. If securing campus beachheads is one leg of that company's overall distribution strategy, then both independent and contract college store operators can expect Amazon to be an even more vigorous player going forward. Amazon has also become a major publisher. It would require an extraordinary effort (or investment) for Amazon to make a serious run at academic publishing. Such a run, however, is neither too audacious nor financially out of the question if Amazon felt that such a move was of strategic importance.

The big academic publishers are fighting the clock. New textbook sales are flat or declining. And while there are big campus-wide courseware, analytics, and digital catalog sales to make the news, we also read that Los Angeles County's Unified School District has just halted its signature $1.3 billion e-curriculum program over what the publisher refers to as "challenges in carrying out a large-scale implementation of new technologies."[94] These publishers are filled with smart people who have a lot at stake. Pressures from content creators, from OER, from rentals, and those that stem from the concentration of buyer power from Amazon, B&N, and Follett are squeezing revenues. The need to smarten up content via personalization, analytics, mixed media, and more is raising the cost of manufacture. The publishers' best hope is to create courseware that imbeds the former textbook. Courseware can be licensed to the institution and must, by definition, be made available to 100% of the students enrolled in a course. Even at half the current price, publishers who now sell to only 30% or fewer of the enrolled students in a course would come out ahead. The only losers in this scenario are those students who don't acquire the required course materials at all. That said, the shift to commercially created courseware is not an easy one and raises big questions about the role of the college store in the associated licensing activity.

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

Amazon, Apple, Google, Microsoft, MCX, PayPal, Samsung, and Square. The payments industry is undergoing a profound change and 2015 may be a turning point. On the one hand, technology giants like Amazon, Apple, and Samsung released or announced new products that asserted those firms' potential centrality in the payments ecosystem and their long-term payments ambitions (Amazon Local Register, Apple Pay, and Samsung LoopPay). On the other hand, startups such as Stripe and ShopKeep are carving out market share, challenging older players like PayPal and VeriFone. Mobile payments—which totaled $37 billion in the U.S. in 2014—are forecast to nearly quadruple to $142 billion in five years.[95] Mobile "will comprise 15% of total U.S. payment volume by 2019."[96] *Business Insider* points to three trends that will shape the payment card-processing ecosystem in the future: (1) the EMV security migration; (2) the rapid deployment of new payment technologies; and (3) the massive card-fraud problem. College stores are moving quickly to meet October's Europay, MasterCard, and Visa (EMV) liability shift and to ready themselves for Near Field Communication-based (NFC) payments.[97] But are they looking beyond that horizon and considering the service provider players, their capabilities, and emerging customer expectations?

[93] Robin Lewis, "Walmart Can Crush Amazon," Robin Report, April 14, 2014. Available at: http://therobinreport.com/walmart-can-crush-amazon/.

[94] Howard Blume, "LA School District Demands iPad Refund from Apple," *LA Times, L.A. Now*, April 16, 2015. Available at: http://www.latimes.com/local/lanow/la-me-ln-ipad-curriculum-refund-20150415-story.html#page=1.

[95] Michael von Glahn citing data from Forrester, in "Pay Daze: How Consumers Can Pay for Purchases is Changing So Fast It's Hard for a Retailer to Keep Up," in NACS, *The College Store* Magazine, March-April 2015, page 26.

[96] Michael von Glahn, ibid.

[97] Michael von Glahn, "Making Change: POS is Growing Up and Out and Taking the College Store with It. That's Great News—as Long as You're EMV-Compliant," in NACS, *The College Store* Magazine, March-April 2015, page 42.

Chegg and its strategic alliance with distribution giant Ingram are potent players. In particular, it is worthwhile tracking Chegg's planned evolution from a textbook exchange and rental site to a "student hub." Chegg has made a strategic shift that appears to commit the company to an all-digital road map and a concomitant EdTech acquisition strategy. Today, that company's website directs students to: "find cheap textbooks, get homework help, and find internships and jobs."

Technologies and Innovations to Watch

Adaptive Learning and Smart Courseware—In 1961, full-time students at U.S. four-year colleges and universities spent 40 hours per week on class and studying. By 2003, they were investing about 27 hours per week.[98] During the same period of time, U.S. college grade averages rose from 2.5 to over 3.0. At U.S. private colleges and universities, 2003 grade averages swelled to 3.3 during this same period.[99] Either our students are collectively brighter than their predecessors or their learning content is better (both are likely true), or standards are in decline and much learning content is being neglected (also likely true). Most important, U.S. graduation rates have moved up very slowly in the past decade suggesting that better grades are not *per se* leading to better attainment of degrees.[100] As discussed earlier, breaking the link in students' minds between reading required course materials and completing the course is challenging for the faculty member, but downright threatening for learning content creators, publishers, and retailers. The pattern of student non-compliance is not new and is not likely to change. What can change is both the reporting of student engagement with course materials and the efficiency and effectiveness of those materials in fostering learning. Publishers, EdTech start-ups, philanthropies, and others are investing in a broad array of capabilities that will allow future course materials to clock student time on task, to adapt to student struggles or triumphs with concepts and exercises, and to capture and contextualize learning performance data that can help faculty members sharpen the focus of their lesson plans. These capabilities have enormous potential for positive change in teaching and learning and unintended potential to alter student learning content buying patterns. For all of these reasons, this family of technologies deserves close scrutiny.

Beacons—The beacon is a device that retailers can attach to store shelves or walls to communicate with customer smartphones. This technology is emergent, but beacon programs are moving out of beta tests and are likely to become an integral part of the retail capability that integrates "bricks and clicks." Beacons allow retailers to communicate indoors with customers, without a need for GPS. They can link to location-sensitive product catalogs, store maps, coupons and flash sales, and payments services. *BI Intelligence* estimates that beacon-triggered messages could directly influence up to $4.1 billion of total U.S. store sales this year and as much as $41 billion in 2016. If and as this technology matures and is adopted, consumers will find new reasons to seek out an on-ground retail experience and to de-value store experiences that do not provide this interactive dimension. Wearable technologies such as Apple's iWatch will help drive adoption of beacon technology by making consumer interaction with store broadcasts more casual.

Personalization and big data—Retailers online and on-ground are amassing and using customer data to better tailor the shopping experience to the customer's preferences and taste. Online "recommender" engines from Amazon, Google, Trip Advisor, or Yelp advise us about the books we'd like to read, the cities we ought to visit, the hotels and restaurants we ought to patronize, and so forth. As these tools get better we begin to believe that retailers understand us better than we do! This capability can stir both fears and deep satisfaction. Colleges and universities are in the early days of mining extensive information from learning management systems and student information systems to create actionable predictive models of key student behaviors—such as their propensity to either nail or withdraw from a class, degree program, course of study, etc. Not only would such models be useful to college store operators, but the reverse may be even truer: spending data and consumption patterns from store POS data could help academic administrators understand the student's relationship to course materials and to the campus "brand." Managing personalization and big data is becoming a competitive imperative and independent college store operators may be at risk of falling behind in this important arena. Large contract operators, Amazon, and others are using "data scientists" to

[98] Philip S. Babcock and Mindy Marks, "The Falling Time Cost of College: Evidence from Half a Century of Time Use Data," April 2010. Available at: http://www.nber.org/papers/w15954.pdf.

[99] Gradeinflation.com, "Grade Inflation at American Colleges and Universities." Available at: http://www.gradeinflation.com/.

[100] U.S. Dept. of Education, NCES – *Digest of Educational Statistics*. Available at: https://nces.ed.gov/programs/digest/d13/tables/dt13_326.10.asp.

apply statistical forecasting and marketing techniques to forge "intimate" relationships with customers. These practices demonstrably succeed in bringing customers back. Falling behind in this arena creates the risk described darkly by one provost interviewed: "You [the college store] are sort of the provider of last resort in some cases whether you like it or not."

Security technologies and practices—At the end of 2012, there were $1.2 billion debit, credit, and pre-paid cards in circulation in the U.S.—more than in any other region. That is nearly five cards per adult. Credit card losses due to fraud grew from $3.2 billion to $7.1 billion from 2009-14 in the U.S. alone (Figure 13).[101] U.S. credit card purchases in 2014 reached $4.4 trillion. A 2012 survey found that 42% of Americans had experienced some kind of credit card fraud in the prior five years.[102]

Figure 13 – U.S. Credit Card Fraud Losses, 2009-14 | Source: The Economist and Nilson Report

Making this bad situation worse, much of this suffering is self-inflicted. In 2012, the U.S. accounted for 47% of all credit card fraud in the world despite accounting for only 23.5% of card sales volume. The U.S. continues to rely on cards with magnetic strips rather than the more secure chip-and-PIN technology used elsewhere. Chip-and-PIN technology combines a personal code with a microchip from which it is harder to extract data than a magnetic strip. In October 2015, Europay, MasterCard, and Visa (EMV) are shifting the liability for credit card fraud to merchants—a move that is mobilizing a rapid and expensive transition to EMV-chipped cards. Industry experts think that by October 2015, when responsibility for card losses on mag stripe cards shifts to merchants, about 70% of the U.S. cards in use will have EMV chips, leaving less opportunity for fraud.[103] Data from Canada, the U.K., and other countries that have widely converted to EMV cards heralds a radical reduction in fraud. As U.S. retailers race to meet the October 2015 deadline, the tech giants are developing and deploying security systems that use a dizzying array of technologies including: fingerprints, iris scans, facial recognition, and more. As described earlier, the payments ecosystem is undergoing significant upheaval and should be tracked, but it is too early to point to specific technologies or practices that will dominate this activity. This ecosystem segment may remain volatile for decades as new security measures beget new counter-measures.

[101] The Economist, "Skimming Off the Top: Why America has such a High Rate of Payment-Card Fraud," February 15, 2014. Data reported is from Nilson Report.
Available at: http://www.economist.com/news/finance-and-economics/21596547-why-america-has-such-high-rate-payment-card-fraud-skimming-top.
[102] Ibid.
[103] Tom Groenfeldt, "U.S. Credit Card Fraud is Spiking Ahead of EMV Secure Chip Introduction," in *Forbes* July 17, 2014.
Available at: http://www.forbes.com/sites/tomgroenfeldt/2014/07/17/us-credit-card-fraud-is-spiking-ahead-of-emv-secure-chip-introduction/.

Critical Questions: Learning Content Retailing

1. What is the current mission of your campus store? How does the scope of merchandise and services you offer meet the campus' expectations?

2. What conversations are happening on campus regarding a course content strategy, course content licensing, open educational resources (OERs), and/or digital/adaptive course materials? Is the store engaged in these discussions?

3. What conversations are happening on campus regarding engagement with students via mobile/ handheld devices, mobile transaction capabilities and applications, and/or consumer data collection and analysis? Is the store engaged in these discussions?

4. To what extent does the store act as a "brand agent" of the institution? Are there expectations and/or strategies in place guiding the in-store experience for customers? The online/mobile experience?

5. Who in your store tracks consumer trends, trends in retail technologies, your competitors, etc.? How so, and how and with whom do they share what they learn?

6. Does the store have clear and purposeful strategies in place for supporting faculty and students in their teaching and learning roles?

7. To what extent are store systems integrated with campus systems? What are the pain points or needed integrations? What consumer insights are you mining?

8. What strategic relationships does the store maintain with campus stakeholders? Which are needed?

Further Readings

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CONSUMPTRIX: LEARNING CONTENT CONSUMERS—FACULTY AND STUDENTS

Consumption of course materials is a complicated mix of faculty control of content choice and student management of purchase, obtaining otherwise, or foregoing the content. Students (and faculty) still prefer print, but potential cost savings and a better learning experience can and is fueling the transition to digital content—especially adaptive learning courseware and platform-based products. OERs, low-cost and tradition-bucking entrants, and federal/state intervention are motivating an evolution of historic consumption and business models. The primary concern may be what happens to learning and academic success if more and more students choose not to obtain learning materials at all.

Key Points

1. Advocates of instructor autonomy argue that it encourages intellectual diversity, leverages instructor expertise, places decisions with those best able to judge student needs, and reduces the risk of political intrusion on curricular decisions. Yet it limits the ability to achieve economies of scale (volume purchases) and discourages large-scale assessment of course material effectiveness. Some also suggest it lies at the heart of rising prices by separating textbook choice and payment.

2. The risk of breaking the link between faculty learning content adoption and assignment and student study/reading behavior has far-reaching implications for the learning content ecosystem.

3. Digital course materials that provide a better learning experience and a significant cost advantage could overcome today's students' apparent preference for print.

4. Publishers have begun marketing and white labeling entire online courses.

5. As affordability and success pressures build and new learning products and business models emerge, colleges and universities are likely to experiment with strategies that shift adoption away from autonomous faculty and toward academic leadership and high-volume sales.

6. Students, for their part, have also enjoyed an expanding range of acquisition options. However, students increasingly are avoiding acquisition altogether.

7. Select key trends include: Widespread reliance on adjunct/part-time faculty and the related centralizing of course materials decision making; growing resentment about the rising cost of textbooks; declining student time spent reading and low utilization of required learning content; rising availability and sophistication of digital content, including adaptive learning platforms; and growing student use of contemporary retail shopping techniques, use of free web sources, pirating of content, or avoiding acquisition altogether.

Mapping the Learning Content Ecosystem
SCORECARD
CONSUMPTRIX: Learning Content Consumers—Faculty and Students

Supplier Power

- Power of publishers may be waning
- Publishers' steady, core business of print textbooks is in trouble
- Traditional, print textbooks are becoming easier to replace with other materials
- OER competition and low-cost publishing start-ups are driving an evolution of the traditional consumption process

Buyer Power

- Buyer bargaining power is on the rise
- Better cost information and more purchase options improve buyer position
- More no-cost content and online educational resources (formal and informal) provide alternatives to the traditional textbook

Rivalry Level*: 2

Competition centers around control of consumption; between campus entities, and between consumers and supplier in emerging business models.
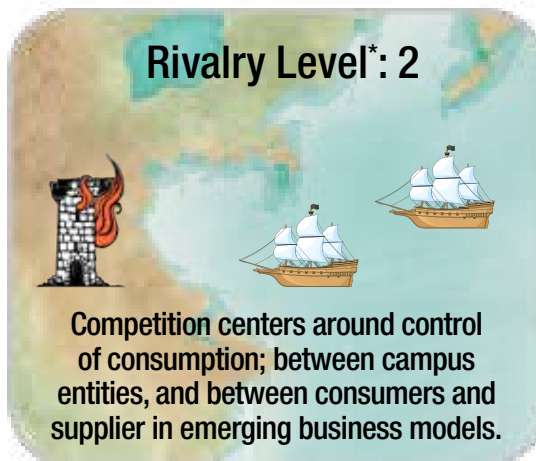
New Entrants

- New breed of low-cost publishers and other sources keen to offer something "radically different"
- "Edupreneurs" strive to make content available that bypasses long-established higher education practices
- Federal and state governments may play increasingly invasive roles through regulation and cost subsidy

Substitutes

- Software platforms and next-generation digital products may eliminate some alternative consumer options
- Changes that affect control over assignment and use:
  - o Institutional licensing agreements
  - o Self-sourcing and other student cost avoidance strategies
  - o Student marketplaces and social commerce/sharing sites

*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

Faculty have traditionally been the bridge between the content creators (publishers) and the college store and its ultimate customer, the student. This complicated but historically harmonious arrangement is under pressure thanks to changes in course materials, student behavior, and the faculty's makeup and role in adopting learning content.

While most of the criticism about high textbook prices has been directed at publishers, faculty have attracted a share of the blame. "Analogous to the market for prescription drugs where prices have risen rapidly," economist James Koch wrote in an influential 2006 report, "in the market for textbooks the separation of textbook choice and textbook payment profoundly influences pricing...[S]tudents end up being coerced to pay for someone else's choices."[104]

Koch went on to argue that faculty lacked price awareness and that textbook prices tend to be inelastic because students feel they have no choice but to buy what is assigned. However, even in 2006 Koch noticed a drop in the number of textbooks being purchased. In the years since, the textbook cost controversy has developed political traction and the marketplace increasingly suggests that students are pursuing cost-saving alternatives. What's more, the proportion of faculty who enjoy adoption autonomy may be declining, bringing other adopter models into play.

Content Consumers: History, Mission, and Value Proposition

Since 1915, the American Association of University Professors (AAUP) has promoted academic freedom in research and teaching, including strong claims for instructor autonomy in the assignment of course materials. The AAUP advises that where a faculty member is a sole instructor, she or he has "the right, under principles of academic freedom, to determine the texts (and other materials) the students will be required to read." In courses with multiple instructors, choice of materials should be "based on a consensus of the appropriate teaching faculty."[105]

> Among all faculty, mixed-mode adoption dominates: only 18% exclusively assign print, and only 6% exclusively digital.

Advocates of instructor autonomy argue that it encourages intellectual diversity, leverages the expertise for which the instructor was hired, leaves decisions in the hands of those best able to judge student needs, and reduces the risk of political intrusion on curricular decisions. Yet it clearly has other implications that have created pushback from some administrators and reformers. It limits the ability to achieve economies of scale or to purchase in volume and discourages large-scale assessment of course materials effectiveness. Instructor autonomy also preserves the "separation of textbook choice and textbook payment" that Koch saw at the heart of rising prices. This separation also contributes to what some refer to as the "chapter tax" which is the result of a faculty member's assignment of a textbook while requiring students to read only a portion of that book.

Instructor autonomy remains high in the non-profit higher education sector, especially at four-year institutions. Alternative approaches are emerging, however, driven by the changing nature of the instructional staff, new course material formats, and students who are less content to remain a captive audience.

[104] James V. Koch, *An Economic Analysis of Textbook Pricing and Textbook Markets (Report to the U.S. Department of Education Advisory Committee on Student Financial Aid,* 2006), http://files.eric.ed.gov/fulltext/ED497025.pdf.

[105] American Association of University Professors, "Contours of Academic Freedom." Available at: http://www.aaup.org/i-need-help/workplace-issues/contours-academic-freedom.

What do instructors assign? The print textbook remains the monarch of educational content, adopted by about eight out of 10 faculty in our fall 2014 survey (Figure 14). Digital materials tend to be supplemental, but a quarter of faculty assigned digital or e-textbooks. This figure varies dramatically by discipline, ranging from a low of 15% in education to a high of 48% in mathematics. Among all faculty, mixed-mode adoption dominates: only 18% exclusively assign print, and only 6% exclusively digital.

Figure 14 – Course Materials Formats Faculty Most Often Assign | Source: NACS, 2014
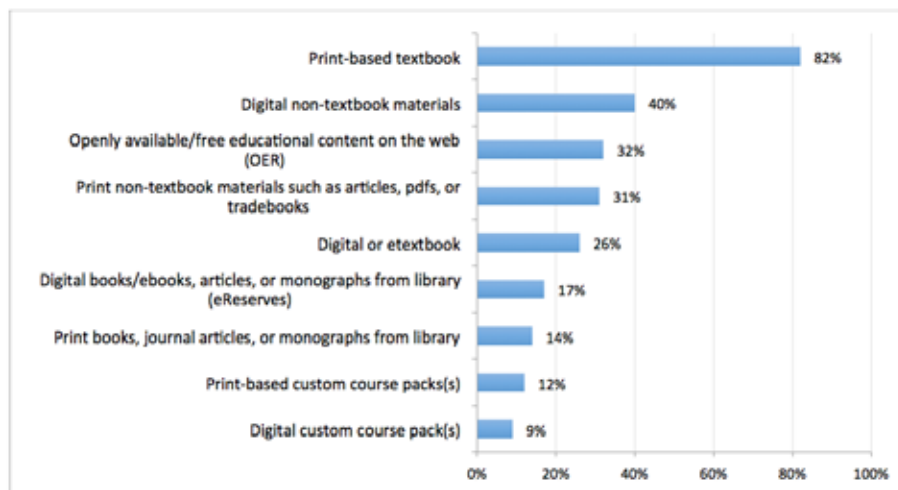
Students confronting these assignments have their own ideas about autonomy. While they remain highly motivated to earn good grades, many try to do so with minimum effort and cost. Studies going back to the 1970s have consistently found that only 20-30% of students will have done assigned reading by its due date.[106] Noncompliance has held steady, moreover, even as assignment lengths declined. Average weekly study time dropped from 40 hours (including class time) in 1961 to 13 hours in 2003, while the proportion of "A" grades rose.[107] Add the rising cost of textbooks to this mix, and one is likely to concede that it is rational for financially challenged students to regard expensive required course materials as inessential. The risk of breaking the link between student study behaviors and faculty learning content adoptions is worrisome. Moreover, it is likely that students who are already at risk from other factors are also those who are most at risk of breaking with faculty choices and reading assignments.

> The risk of breaking the link between student study behaviors
> and faculty learning content adoptions is worrisome.

NACS' Student Watch™ data collected in fall 2014 suggests that many students do so. Only about a third say they use assigned course materials 80% or more of the time, and only 57% say they use them more than half of the time (Figure 15). Similarly, just more than half find their course materials "very" or "extremely" useful, though heavier users do so at higher rates. And as we shall see, a growing number of students are choosing not to acquire some required materials.

106 Eric H. Hobson, "Getting Students to Read: Fourteen Tips" (Idea Paper #40, The Idea Center, 2004). Available at: http://ideaedu.org/sites/default/files/Idea_Paper_40.pdf.
107 Richard Arum and Josipa Roksa, *Academically Adrift: Limited Learning on College Campuses*. Chicago, 2011; Stuart Rojstaczer and Christopher Healy, "Where A Is Ordinary: The Evolution of American College and University Grading, 1940-2009," *Teachers College Record* (114:7, 2012). Available at: http://www.gradeinflation.com/tcr2011grading.pdf.

Figure 15 – Use of Assigned Course Materials | Source: NACS, 2014
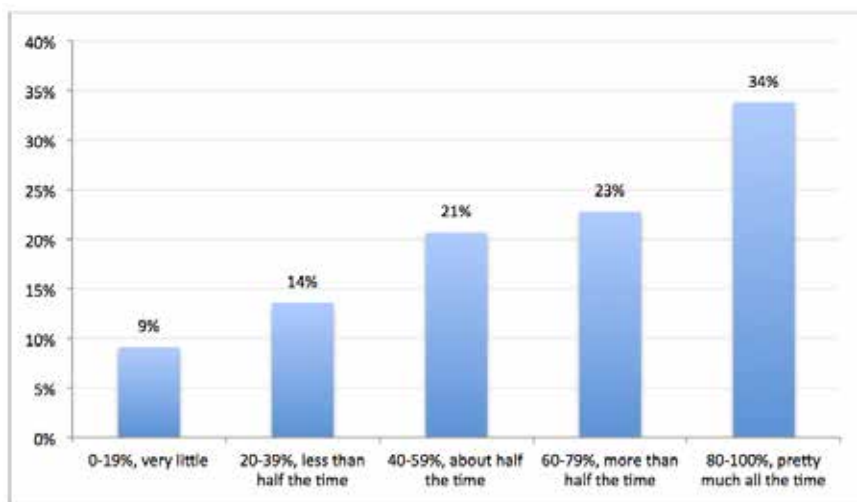
If students are willing to push the envelope of course material use, they remain conservative about formats. Only 9% of NACS' Student Watch™ study respondents prefer strictly digital formats, versus 56% who prefer print textbooks with or without a bundled digital component. Many of these students say they find print textbooks easier to study from.

Still, many trends point toward a digital future. About a quarter of students say that their preferred format "depends on the course." The percentage of students purchasing digital course materials rose slightly from 18% in 2013 to 21% in 2014. Two-thirds say that when they are studying at home, digital course content improves learning, and a similar number agree that instructor use of digital course materials can improve student learning.

Students, as we know, are primed for digital consumption. Nine out of 10 own a laptop, 84% own a smartphone, and more than one-third (35%) own a tablet device. Half used a smartphone in fall 2014 to complete coursework, and a quarter used a tablet (two-thirds among tablet owners). Digital course materials that provide a significant cost advantage and a better learning experience could overcome today's students' apparent preference for print.

Disruption of Educational Content Consumption

One challenge to the traditional faculty assign-students buy pattern is the growing use of contract, adjunct, and part-time instructors. In fall 2011, there were 1.5 million instructional faculty in degree-granting postsecondary institutions—approximately half full-time and half part-time.[108] From 1975 to 2011, total enrollments grew by 88%, yet the number of tenured and tenure-track positions grew by only 23%. Contingent positions grew at five times that rate, accounting for nine out of 10 net new positions.[109]

Paid between $1,000-5,000 per course[110] and often hired at the last minute, adjunct faculty do not have the same opportunities to craft courses as their more secure colleagues. Course design and materials assignments for adjunct-led courses are often carried out by permanent faculty or departmental committees, centralizing the adoption process. Among faculty surveyed by NACS in fall 2014, three-fourths of ladder faculty said that they select course materials for assignment in the courses they teach; only 37% of contract faculty did so (Figure 16). Contractors were almost five times as likely as ladder faculty to report that a campus or departmental committee selects materials for their courses.

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108 U.S. Department of Education, NCES, "Characteristics of Postsecondary Faculty." Available at: https://nces.ed.gov/programs/coe/indicator_cuf.asp.

109 John W. Curtis, *The Employment Status of Instructional Staff Members in Higher Education, Fall 2011*. AAUP, 2014. Available at: http://www.aaup.org/sites/default/files/files/AAUP-InstrStaff2011-April2014.pdf; National Center for Education Statistics, *Digest of Education Statistics 2014*, Table 304.10, and *Digest 1995*, Table 167. Available at: https://nces.ed.gov/programs/digest/.

110 Matt Saccaro, "Professors on Food Stamps: The Shocking True Story of Academia in 2014," *Salon*, September 21, 2014. Available at: http://www.salon.com/2014/09/21/professors_on_food_stamps_the_shocking_true_story_of_academia_in_2014/.

Figure 16 – Faculty Role Selecting Course Materials, by Faculty Type | Source: NACS, 2014
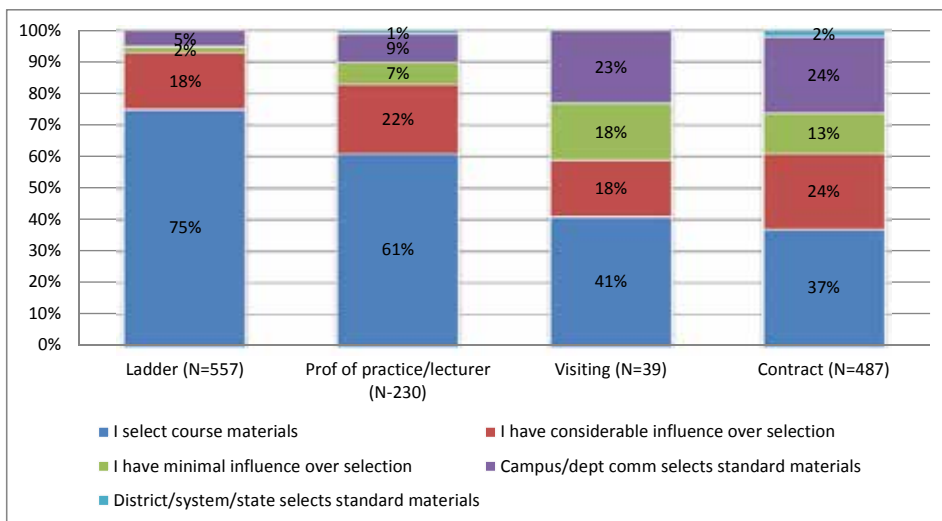
A majority of faculty surveyed agreed that the use of contract faculty will drive greater standardization of general education course materials over the next five years. As contractors become more numerous and their assignment autonomy diverges from traditional norms, college stores can expect a reduction in the number of discrete learning content "assigners" on campus and higher stakes in winning or losing the orders of selection committees.

While growing use of contract faculty concentrates the adoption process, content selection at non-profit institutions is likely to remain the province of ladder rank faculty. Not so where course design is more likely to be centralized and syllabi and course materials standardized, such as:

- for-profit institutions;
- fully online (distance) programs; and
- the adult and continuing education programs run by many non-profits,
  including many professional M.A. programs.

> College stores can expect a reduction in the number of discrete
> learning content "assigners" on campus and higher stakes
> in winning or losing the orders of selection committees.

Publishers have taken note, and have begun marketing and white labeling entire online courses. Such courses are typically developed with higher education partners and are sold as turnkey products to other institutions who add an institutionally branded template, an instructor, and a class full of students. Individual faculty members can modify such courses, within the limits of intellectual property agreements. Pearson's CourseConnect product line, for example, includes more than 130 online courses. The Propero suite of self-paced online courses—developed with Ivy Tech College of Indiana—renders even the instructor unnecessary. Entrepreneurial units within traditional institutions, like Arizona State University, Indiana Wesleyan University, and Regis University, now co-develop courseware with publishers, use courseware developed elsewhere, or create and market courses for resale by other institutions.

In courses or programs like these, key decisions about syllabi and course materials are made by teams that include program administrators, instructional designers, testing and assessment specialists, and faculty subject matter experts. Similar changes in the locus of decision-making can be seen in other emerging publisher products and practices, including licensing of adaptive learning platforms and institutional licensing of textbooks and e-textbooks. Institutional licensing of learning content—while still counter cultural—is attracting mainstream interest. Such interest is likely to gain momentum as:

- Textbook affordability remains a hot issue;
- Commercial learning content becomes increasingly digital;
- Publishers exert more control over smaller learning objects and "chunks" of digital content;
- More attention is paid to the relationship of learning content to student outcomes;
- Lines begin to blur between textbooks and courseware; and
- Learning content becomes increasingly reliant on institutional investments in curation, instructional design, analytics, personalization, and assessment.

As affordability and success pressures build and new learning products and business models emerge, colleges and universities are likely to experiment with strategies that shift adoption away from autonomous faculty and toward academic leadership and high-volume adoptions/purchases. Student autonomy, too, is in the crosshairs with these strategies. Replacing store purchase with a non-negotiable materials fee, institutional licensing makes it impossible for students to avoid paying for materials. In many cases, these experiments and downstream changes in policy and practice that arise from them will meet with faculty skepticism or outright hostility.

NACS Resource: "Academic Content Licensing White Paper," available in The Hub (NACS member login required) or upon request to education@nacs.org

Open educational resources (OER) are a potential disruptor of a very different kind, but they too bring new patterns of consumption. The OER movement's goal of creating best-of-breed materials that can be used free of charge introduces radical price contrasts into the faculty member's or the institution's learning content adoption decisions. Should an instructor who prefers an expensive textbook but feels that an OER resource is "good enough" choose quality or price? This question is particularly salient in light of efforts by OER advocates and others to foster institutional and government policies that tip the decision scales in favor of the low-cost learning content.

OER advocates insist that they can and do match the quality of commercial products. The higher education system, district, and state-wide initiatives to assemble OER libraries signal that OERs enjoy some level of official sanction. Short of changing the policy environment, OER advocates know that messages of OER support influence student expectations, and faculty selectors may feel compelled to put a thumb on the affordability/OER side of the scale, even when academic policy frees them to assign whatever they like. OER content can be mixed with paid content—a process publishers can assist with, but that is not well known throughout faculty ranks.

Also disrupting consumption is the growing range of retail sources. One in five faculty members does not advise students where to acquire materials. While the vast majority of those who do offer advice refer them to the college store, online sources have become popular enough that the college store can no longer be considered the default choice. The 2014 NACS faculty survey indicates that half of those surveyed refer their students to Amazon as well as to the college store. Sizeable groups refer their students to other online retailers (17%) and directly to publishers (14%). And of course, websites and the library are important sources of faculty referral as well. There is anecdotal evidence that some faculty imbed links to course materials at Amazon (Figure 17).

Figure 17 – Where Do Faculty Refer Students for Acquiring Course Materials? | Source: NACS, 2014
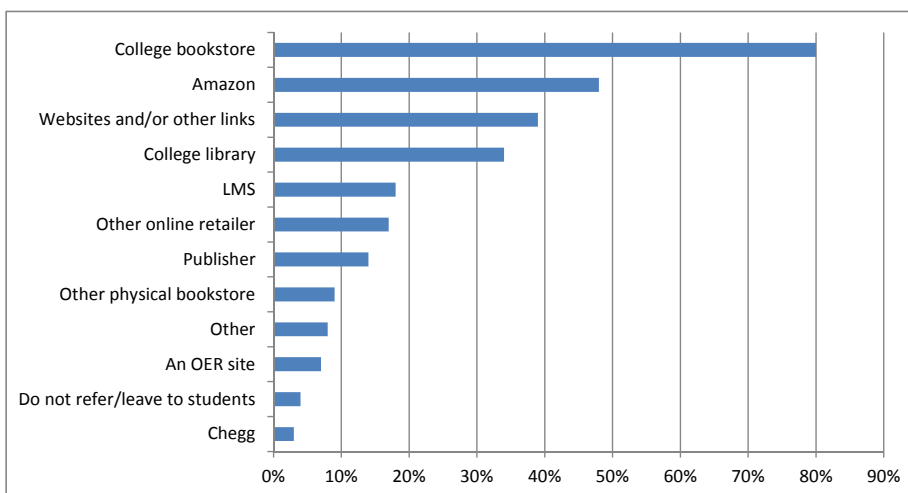
Students, for their part, have also enjoyed an expanding range of acquisition options. Textbook rental has been growing rapidly, reaching 40% of students in fall 2014. Where students buy maps roughly to faculty referrals (Figure 18). Though in-store and online purchases through the college store dominate, 48% of responding students buy some materials through Amazon. Among renters, 28% of them rent through Amazon.

Figure 18 – Where Students Purchase Course Materials | Source: NACS' Student Watch™, 2014
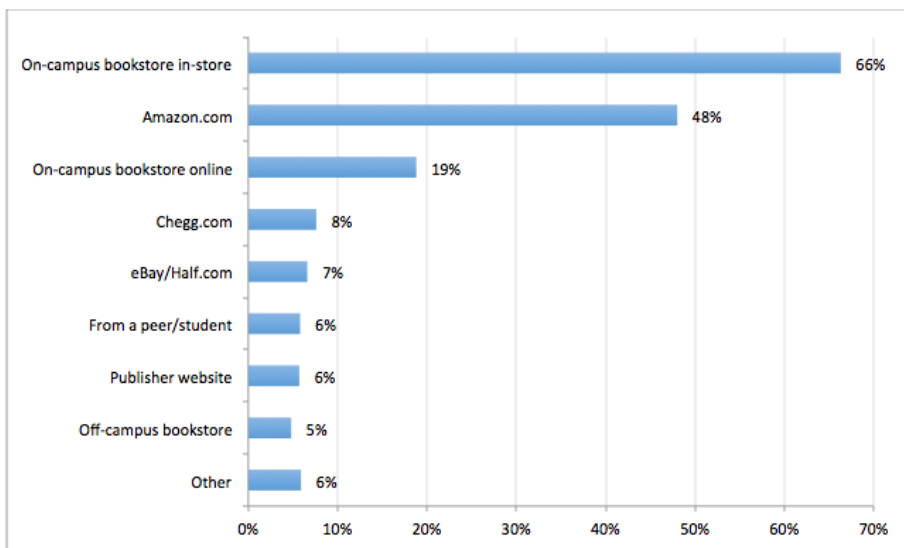
As mentioned, students increasingly are avoiding acquisition altogether. Nearly three in 10 students report non-acquisition of at least one course material. The most common single reason offered for avoiding a purchase or rental is price (40% of avoiders). Students also avoid adopted learning content when they perceive that materials aren't needed based on self-perception (34%), advice from the professor (33%), or advice from other students (23%). Many students make do by relying on notes or materials borrowed from a friend or the library. But one in eight acknowledges downloading content "for free" or from a peer-to-peer exchange—actions that likely involve piracy.[111]

[111] This may be an undercount due to reluctance to confess. In a different study, one in five students acknowledged acquiring textbooks from a pirate website, and a similar number downloaded digital textbook content from other students. See Book Industry Study Group, *Student Attitudes toward Content in Higher Education* (Vol. 4, Report 2 of 2, July 2014). Available at: https://www.bisg.org/publications/student-attitudes-toward-content-higher-education.

Still more avoidance alternatives could arise. Online purchasing and the frequent resort to other students to buy, sell, or borrow materials could come together in the "sharing economy" represented by firms like Uber, Airbnb, and Zipcar. Its basic principle is to rent out privately owned assets during periods of disuse through real-time mobile apps that help users locate the asset and pay for its use. When imbedded in a dense community of users, sharing economy services can be so efficient that they become an alternative to ownership. It is not hard to imagine students taking their informal sharing among friends to greater scale in this way. In fact, colleges and universities looking for creative ways to lower the cost of a student's education may use libraries, residence halls, and apps to aid and abet students who wish to make disused course materials available to other students.

Cost pressures, expanded purchase options, and a hacktivist conviction that "information wants to be free" go a long way toward explaining student restiveness with traditional buying behaviors as well as envisioning future behaviors. But an even larger disruption may be at work: higher education is experiencing the decline of deference toward teachers and institutions that has long been lamented by K-12 educators.

Many faculty and administrators insist that parents—and even third parties, including peers—are far more likely today than in previous generations to intervene on a student's behalf to question decisions about grades, discipline, and student life issues. While it is hard to measure the "helicopter parent" phenomenon, many students acknowledge it as a reality.[112] The practice puts a new spin on the old notion of *in loco parentis*, but it also suggests a wider loss of reflexive respect toward higher education. It is not a big leap for students to conclude that they needn't buy a load of books just because they are listed on a syllabus.

Competitive Dynamics

Key Trends

- **Widespread institutional reliance on adjunct/part-time faculty**, especially for general education, and the related centralizing of course materials decision-making

- **Resentment about the rising cost of textbooks** among students, parents, legislators, and other higher education stakeholders

- **Declining student time spent reading and low utilization of required learning content**

- **Rising grades and activism by parents and proxies**, and possible declining deference to institutional authority

- **Emerging publisher products and business models** emphasizing institutional licensing over the prevailing faculty assigns-student buys paradigm

- **Low importance rating, by faculty survey respondents, of textbook supplements** which are widely believed to be major cost drivers of commercial textbooks

- **Rising availability and sophistication of digital content, including adaptive learning platforms**

- **Growing student use of contemporary retail shopping techniques** (including showrooming, online comparison shopping, purchasing in alternative modes and on non-U.S. commercial sites) and their **use of free web sources, pirating content, or avoiding acquisition altogether**

Rivalry within the Sector

Consumption of course materials is not exactly an industry with competing rivals, yet as our disruption analysis suggests, a contest is going on for control of it. **The longstanding tradition of faculty dominion over learning content assignment still dominates**, but "adjunctification," increased accountability for student success and the college cost crisis may undermine that hallmark of academic freedom. For now, the academic leaders we interviewed are loathe to grab this "third rail." Over time, administrators eager to cut costs, limit student avoidance, and introduce efficiencies may find the licensing of course materials (and even courses) more attractive than traditional faculty hegemony. Publishers will be eager to abet a process that locks in volume sales and predictable revenues that the end consumer cannot avoid.

[112] Amy Rainey, "Survey Provides Further Evidence of Higher Parental Involvement with College Students," *Chronicle of Higher Education*, April 14, 2006. Available at: http://chronicle.com/article/Survey-Provides-Further/3916/; Holly H. Schiffrin, Miriam Liss, et al., "Helping or Hovering? The Effects of Helicopter Parenting on College Students' Well-Being," *Journal of Child and Family Studies*, 2013. Available at: http://link.springer.com/article/10.1007/s10826-013-9716-3.

The erosion of faculty control seems most likely to happen in general education courses and in programs that have a practitioner rather than an academic focus, especially in adult and online education. It is likely as well that such erosion will surface early in areas of instruction dominated by contract faculty; that is, where faculty governance is weakest. For the time being, however, faculty views on this subject suggest a nervous confidence. Overall, one-quarter of NACS fall 2014 faculty survey respondents believe that faculty input into course materials selection will diminish over the next five years. Contract faculty are considerably more likely (34%) to agree with this proposition than are ladder faculty (19%). More faculty (38%) expect institutional licensing of widely used course materials to be the norm in five years, but slightly more disagree (43%).

> College stores facing dwindling student willingness to consume in traditional ways can console themselves that provosts and presidents face the same challenges.

Students are asserting themselves as empowered consumers and "netizens," but also in more organized ways: student public interest groups are an important part of OER advocacy.[113] Student behavior with course materials is part of a larger expansion in the range of educational choices represented by online education (which involves about a quarter of all students in a given semester), MOOCs, prior learning credits, and a wide range of non-academic online education and learning support services. College stores facing dwindling student willingness to consume in traditional ways can console themselves that provosts and presidents face the same challenges.

Bargaining Power of Suppliers

We have considered publishers as influencers on the consumption process, especially in the form of institutional licensing. But they are still primarily suppliers to consumers, and there are indications their power is waning. The popular characterization of the publishing industry as a cozy, greedy, and largely unchecked oligopoly faces the inconvenient fact that since 2007, publishers have had to absorb a remarkable decline in average student spending on course materials. This industry—along with booksellers—is on the spear tip of digital disruption and will sink or swim based on the acceptance of risky new products and practice. **In a nutshell, the publishers' steady, core business of print textbooks is in trouble**.

Our faculty survey respondents assign print textbooks at rates far above any other format, yet close to one in three say textbooks are becoming easier to replace or cannot keep up with their fields, and only 14% expect the use of textbooks to grow. The Book Industry Study Group (BISG) reports declining faculty reliance on textbooks and precipitous drops in the rate of "core physical textbook" assignment in courses between 2011 and 2014. Faced with growing OER competition, low-cost publishing startups, and growing politicization of the cost issue, publishers cannot play hardball with higher education without re-inventing the consumption process.

> The only rational reason to enter the textbook and course materials marketplace would be to offer a radically different alternative.

Threat of New Entrants

Today, faculty, students, administrators, and publishers are the major parties influencing college learning content consumption. New players could influence the future. **A cadre of "edupreneurs" is making educational content available that wholly bypasses long-established higher education practices.** Many of these newcomers market directly to consumers. A student who finds a Khan Academy video, a Coursera lecture series, or an OER Commons textbook helpful in learning a topic may become confident that he or she can leave a required textbook on the shelf. Faculty looking to provide cheap alternatives to their students may draw the same conclusion.

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[113] See, for example, the national Student PIRGs textbook affordability site at: http://www.studentpirgs.org/ campaigns/sp/make-textbooks-affordable.

Under these circumstances, the only rational reason to enter the textbook and course materials marketplace would be to offer a radically different alternative—and in classic disruptive fashion, a new breed of publishers is doing so. Self-publishing services like Amazon Kindle Direct and Leanpub allow authors to eliminate expensive editorial processes and distribute directly to readers, while still earning revenue off of much lower prices. Leanpub features suggested but optional prices, giving students the ability to set their own prices and reward authors—or not.

Coming from the opposite side of the consumption universe is another player: Uncle Sam and the state legislatures. In 2008, the Federal Government sent a shot across higher education's bow with the Higher Education Opportunity Act (HEOA). It requires institutions and publishers to publish learning content prices and "encourages" them to spread information to students about rental and other cost-savings options.

Though mild in its requirements and explicit in its promise not to "supersede the institutional authority or academic freedom of the instructors," HEOA hints at the possibility of textbook assignment becoming a regulated activity.[114] Several state textbook affordability bills have been passed, and a proposed federal Affordable College Textbook Act would provide federal funds to create and distribute OERs. Faculty and administrators thinking about course assignments could one day find a "big brother" at the table.

Bargaining Power of Buyers

On the whole, **we believe that buyer bargaining power is on the rise**. As we have seen, students and faculty alike have access to better cost information, more purchasing options, more free content, and more online educational resources, both formal and informal. Declining student spending suggests that Koch's model of uncomprehending faculty and locked-in students has been breaking down since the time he suggested it.

Our surveyed faculty do not live up to the legend of price unawareness.[115] Asked about what influences their selection of course materials, faculty cite quality (65%) and cost (60%) at similarly high rates that far exceed all other factors (Figure 19). Nine out of 10 agree that they are aware of the cost of the materials they teach, and two-thirds say that comparative information about course material cost would have a strong influence on their decisions. Cost awareness combined with a growing use of free web or OER materials may account for an observed rise in the proportion of courses that assign no formal materials, which rose from below 5% in 2010 to 11% in 2014.[116]

Figure 19 – Faculty Factors in Selecting Course Material | Source: NACS, 2014
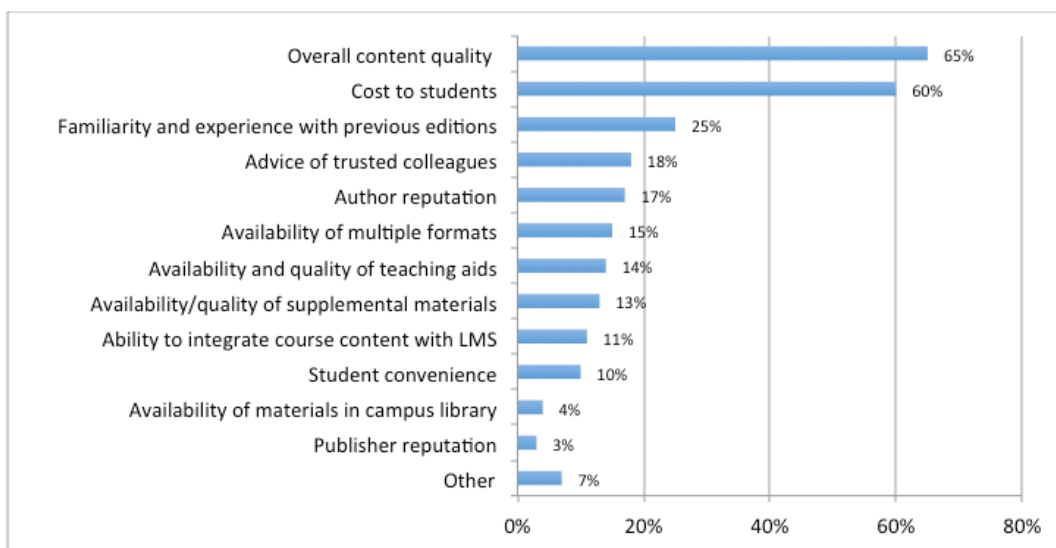
[114] HEOA Textbook Provision. Available at: http://als.csuprojects.org/uploads/4U/gH/4UgHuRctkHQM24t3QrKUzA/ HEOATextbookProvision.pdf.

[115] This finding cannot be taken to the bank. Other recent and larger surveys such as that on OER continue to suggest that faculty are not deeply aware of the cost to students of the materials they require.

[116] BISG, *Student Attitudes toward Content in Higher Education* (Vol. 4, Report 2 of 2, July 2014). Available at: https://www.bisg.org/publications/student-attitudes-toward-content-higher-education.

Nowhere is the power of buyers more evident than in the ongoing decline in per-student spending on course materials. Squeezed by high education costs overall and responsive to new rental and Internet options, student annual spending dropped from $701 in 2007-08 to about $563 in 2014-15. Indeed, rising textbook prices may reflect declining, not absolute, publisher power: dropping demand pushes publishers to raise prices to maintain revenue, only to further alienate consumers in a deadly spiral. While we know that average learning content expenditures per student are declining, we do not know precisely why. Are the more affluent students exercising their digital market power muscles and bargain shopping, or are financially struggling students desperately seeking solutions with their backs pressed against the wall? The evidence is strong that there is a bi-modality regarding the financial means of higher education's students. How differences among students—like those reflected in Figure 20—play out in learning content consumer behavior is something that deserves further study.

Figure 20 – Two Faces of Student Work, Senior Year Students | Source: National Survey of Student Engagement (NSSE) at Four-Year NSSE Institutions, 2013
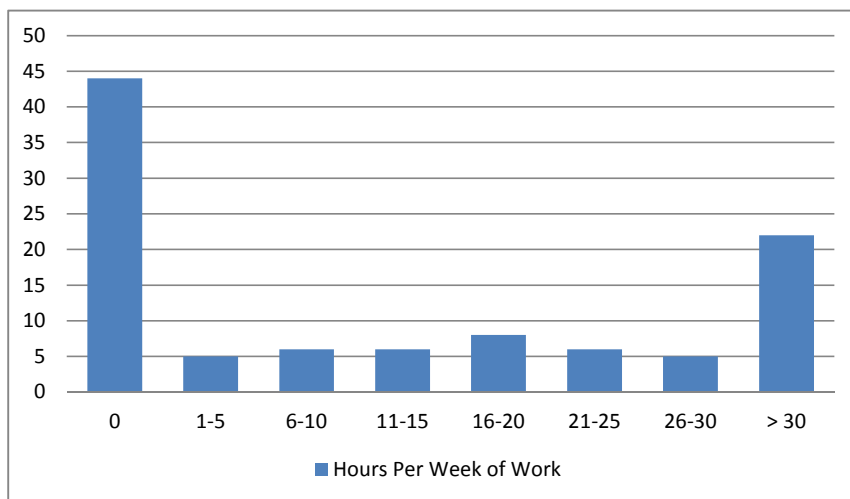
Threat of Substitutes

Beyond threat, digitization and an explosion of new educational content are ushering in a new era of substitutes for today's course materials. The key question for content consumption will be how these changes affect control over assignment and use. For all of its problems, the faculty assigns-student buys paradigm connects the two parties with the most knowledge about educational needs and the most interest in a good outcome. Software platforms and institutional licenses that bureaucratize decision-making upwards raise the stakes of a bad decision, while student self-sourcing that democratizes it downward could further dilute a curriculum that some believe has already been slowly withering for decades.

Much about student buying behavior shows inventiveness and resistance in the face of a traditionally rigid market in which their role is to do as they are told. But we should not exaggerate their academic idealism or their mastery of all things digital. Some indications of the dangers of student self-sourcing may be found in studies of student information literacy and research practices. They confirm what many faculty bemoan: a tendency, faced with a vast universe of information sources, to follow paths of least resistance, and to struggle with assessing scholarly resources.[117] Though it is on the rise—and is impossible to prevent—student self-sourcing can only go so far before institutions will be forced to adopt containment strategies. Institutional licensing and interactive/adaptive courseware may get a boost from this counter-response.

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[117] Alison J. Head and Michael B. Eisenberg, *Truth Be Told: How College Students Evaluate and Use Information in the Digital Age,* Project Information Literacy Research Report, December 5, 2013. Available at: http://projectinfolit.org/ images/pdfs/pil_fall2010_survey_fullreport1.pdf; Alison J. Head, *Learning the Ropes: How Freshmen Conduct Course Research Once They Enter College,* Project Information Literacy Research Report, December 5, 2013. Available at: http://projectinfolit.org/images/pdfs/ pil_2013_freshmenstudy_fullreport.pdf.

Key Players

Amazon and Chegg have both become alternative forces in textbook consumption, with smaller players like Bookrenter.com and Valorebooks winning single-digit shares according to NACS data. Amazon's aggressive moves to create a campus presence could improve its visibility and ability to service faculty and students alike.

As in other parts of the learning content ecosystem, **the major publishers including Pearson, Cengage, McGraw-Hill, Elsevier, and Wiley** are trying to hold on to the profit centers of the past while redesigning themselves for a digital future. Rich content consumption platforms like Cengage's MindTap and McGraw-Hill Campus are high-stakes bids to re-establish a favorable market position in an age of content commodification. Less revolutionary but still potentially potent, institutional licensing seeks to turn content adoption into a conversation between power players rather than a campaign to herd 22 million faculty and student "cats." These bold moves deserve watching.

College and university executives and faculty may well enter into a conflict over learning content adoption autonomy as bruising and long-lived as the one over online education. Institutionally licensed materials do not have much of a track record yet, but they promise to address problems that trustees, politicians, policy makers, and the public at large want to solve: high learning content costs, academic inefficiency, and lackluster student success. A substantial, high profile publisher deal with a noteworthy discount off the retail price, an analytics component, and an effective digital delivery option could be a compelling reason for a dean, provost, or president to take on faculty prerogatives, especially in high-enrollment introductory courses. And while tenure-line faculty are unlikely to surrender control without review and debate, the need for them to share their role in teaching, the realities of diminishing public support, and increasing impatience with college costs will make it ever harder to defend and sustain the notions described in AAUP policy statements regarding finite limitations to a professor's right to select her/his own instructional materials. (See AAUP, *Policies and Reports*, 9th ed., pages 133-134.)

This said, **the most important players to watch are the students**. Master consumers and adept innovators, today's students are exploring many different paths to liberate themselves from a learning content model that they believe contributes to their staggering debt load without assuring them of a diploma or competencies that count in the workforce. Expect students to be receptive to OERs, to be surprisingly reluctant to shift to digital materials without substantial cost benefits, and to explore a flourishing universe of educational materials online. And certainly watch for a 23-year-old recent graduate to put a ShareYourTextbooks app on student mobile devices everywhere.

Technologies and Innovations to Watch

Technologies and innovations to watch in this segment of the ecosystem include:

- **Rental alternatives** to textbook purchase
- **Licensing of courses and content** at the department, school, or institutional level
- **Adaptive learning systems** allied with student performance data capture and related analytics
- **Government regulation or subsidy** of course materials
- **Extension of the "sharing economy"** to course materials
- **Backward integration into publishing by MOOCs** and other scale-based educators
- **Forward integration into teaching by publishers**
- **Student e-marketplaces and social commerce sites**
- **OER initiatives**
- **Student cost avoidance strategies**, including rental, borrowing, non-use, and piracy

Critical Questions: Learning Content Consumers—Faculty and Students

1. What is the faculty make-up on your campus: tenure-track versus adjunct/part-time?

2. Where are the course material adoption decisions being made on your campus? Are there any trends that can be identified to suggest a shift in faculty authority in these decisions?

3. To what extent are digital, adaptive courseware products and platforms being used on your campus? Is there a trend of increased use?

4. To what extent are OERs being used on your campus? Is there evidence of a trend?

5. Are there discussions occurring on campus about content licensing/course fee models, course licensing, and/or use of MOOCs? Is the college store involved in (or leading) these discussions?

6. What is the level of course materials price sensitivity on your campus? Who are the vocal/active stakeholders? How are their concerns manifesting, and how is the campus store addressing their concerns?

7. What market share of adoptions does the store have? What percent of students are purchasing and using the required course materials and supplements (indicated by your sell-through, feedback from students, comments during Buyback, and other measures)?

8. What strategies and initiatives does the store have underway or planned to maximize course materials access and affordability for students?

9. In what ways is the campus store partnering with/serving faculty and students to maximize the ROI of learning content and course materials?

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SERVITIUS: LEARNING AND SUCCESS SERVICES

Higher education faces the great challenge of re-balancing access and success with cost-effective solutions. This and related forces are creating an emerging student learning and success services market. While students may continue to self-source via online providers (new and old), institutions need scalable alternatives. The primary publishers and many start-up, technology-enabled providers are emerging as potential solutions for institutions to contract their way to a new future of student success and achievement. Institutions (potentially with the college store as an aggregator) or other providers that can offer the "smartest" and most effective services will win out—so long as students acknowledge the value and vote with their dollars and engagement.

Key Points:

1. Pressure to improve graduation rates at U.S. institutions is driving many to expand services that help students resolve academic difficulties or life and work issues that threaten their progress.

2. Higher education's underinvestment in academic support, frenzied private-sector experimentation, and digital destabilization have produced an emergent student learning services sector in which students are gaining more power to substitute options they prefer for officially sanctioned ones.

3. The landscape that is emerging might be pictured as an archipelago of separate islands of varying sizes—influenced by improved understanding of the inter-play between cognitive and non-cognitive factors impacting student success.

4. Higher education's chief value proposition is that it alone can provide the educated workforce and citizenry needed to meet 21st-century challenges. So if a large proportion of those who want a degree fail to earn one, a basic promise is compromised. And it has become evident that access does not guarantee success.

5. Evidence is mounting that "ancillary" services and co-curricular support offerings factor heavily into student persistence, course completion, retention, and eventual graduation. However, those services are expensive and difficult to scale as traditionally delivered.

6. The new student learning services ecosystem is being shaped by four kinds of disruption:

    a. the institutional challenge of adopting a culture of student success in an era of declining funding;

    b. a digital solutions marketplace able to economically deliver student learning services;

    c. the growing availability of do-it-yourself learning services; and

    d. an alliance of leaders keen to persuade or coerce higher education into new practices.

7. New entrants and partners will emerge that have the capacity to help institutions identify at-risk or unguided students for targeted attention, build better self-service resources, track advising case histories, and equip limited institutional staff with information to increase their effectiveness. The college store could play a role in sourcing, distributing, and brokering services contracted by the institution or sought by students themselves.

Mapping the Learning Content Ecosystem
SCORECARD

SERVITIUS:
Learning and Success Services

Supplier Power

- Movement to improve student success increases power of service providers

- Performance-based funding serves to lock in success awareness

- Publishers' investments focused on learning success support positions them well as suppliers

- Outsourcing resistance in this campus-student relationship area may be a tough sell

Buyer Power

- Intense competition between potential new service providers gives both institutions and students increased buyer power

- Institutions contracting for learning services or implementing success systems have a range of options

- Student acculturation to online services being limitless and free diminishes power of consumer-oriented learning services sites and increases student consumer power

Rivalry Level*: 4

Intense competition and competitive opportunity as an emerging ecosystem component.

New Entrants

- Dominated by new entrants as an emerging ecosystem segment

- Barriers to entry at the institutional level are substantial due to cost and scale

- Publisher motivations are high due to lost revenue on traditional textbooks

- Parade of new cloud-based, technology-enable, venture-capital supported projects will continue

Substitutes

- Substitutes are needed as traditional services have been too few, underperforming, or not scalable

- Cultural, technical, procedural, and policy constraints of current services will not likely characterize or limit substitutes

- Trends and forces related to consumers, revenues, achievement, and data analytics that are fueling disruption and changes in other ecosystem segments will be drivers of substitutes in this emerging segment

*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

The cover of a recent issue of *The Economist* proclaimed: "The Whole World is going to University." After decades of intense and largely successful focus on getting more people to enter colleges and universities, U.S. higher education leaders, policy makers, and philanthropists are shifting attention to whether they leave with a degree in hand. This is a good and necessary thing. *The Economist* reports, "In 1995, America had the highest graduation rate in the OECD. Now it lags behind seven countries." Yet per capita, "the U.S. outspends all others on higher education."[118] Pressure to improve graduation rates at U.S. colleges and universities is driving many institutions to expand services that help students resolve academic difficulties or life and work issues that threaten their progress.

Colleges and universities no longer, however, have the playing field to themselves. Like much of higher education, student learning services are undergoing what one author calls "the Great Unbundling": the dismembering and alternative sourcing of an institution's integrated services.[119] Even as the digital revolution opens new avenues for institutional learning service delivery, it is inspiring entrepreneurs to offer similar services directly to students as well as expanding free crowdsourced alternatives. As in the learning materials marketplace, students are gaining more power to substitute options they prefer for officially sanctioned ones.

Higher education's historic underinvestment in academic support, together with today's almost frenzied private-sector experimentation and digital destabilization, has produced an emergent student learning services sector. It includes traditional academic support services like tutoring, academic and career advising, and assessment; and new practices like coaching (focusing on "non-cognitive" factors like motivation, "grit," and time management), remote test proctoring, and analytics-based "early alert" interventions.[120] Digital technology is reshaping traditional academic services and introducing new ones.

Today this collection of services is in so much flux that its shape can hardly be sketched and its ultimate relationship to the college store only hypothesized. The landscape that is emerging might be pictured as an archipelago of separate islands of varying sizes, some subsiding and some growing with volcanic force. And perhaps that is what it will remain. But as markets settle down and businesses consolidate, student learning services could also come to resemble something bigger and more coherent—a continent of integrated services under well-defined jurisdiction. In part, the shape of things to come will be influenced by our improved understanding of the inter-play between cognitive (classes, course materials, assessments) and non-cognitive (coaching, co-curricular offerings, student life) factors and their relative impact on student success.

Figure 21 – Learning Services Emergence – Hawaii or Australia?
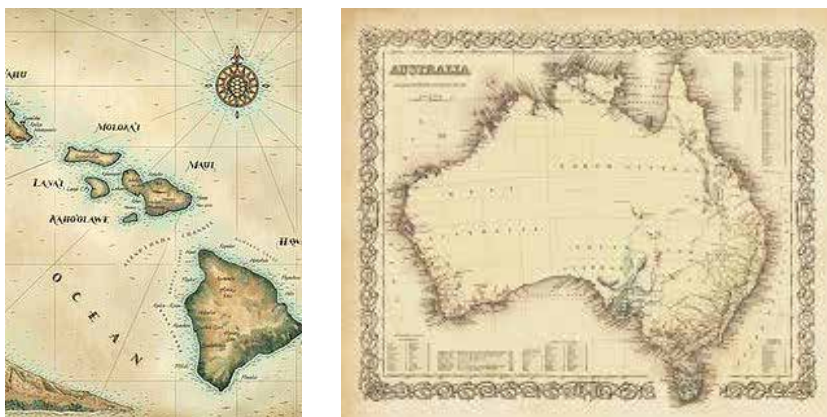
Hawaii or Australia? In either case we can expect both institutions and students to want to know which services are available, how they can be used effectively, and how valuable they are. College stores need to watch the evolution of this marketplace to see if a new opportunity arises to distribute, integrate, or broker student learning services.

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118 Special Report – Universities, in *The Economist*, April 3, 2015. Page 14.

119 Anya Kaminetz, *DIY U: Edupunks, Edupreneurs, and the Coming Transformation of Higher Education*, White River Junction, VT, 2010.

120 A. L. Duckworth, et al. "Grit: Perseverance and passion for long-term goals," *Journal of Personality and Social Psychology*, 92(6), 1087-1101. Available at: https://upenn.app.box.com/DuckworthPeterson.

Student Learning Services: History, Mission, and Value Proposition

Higher education's chief value proposition is that it alone can provide the educated workforce and citizenry needed to meet 21st-century challenges. Even with costs high, earning a college degree still provides large income returns for many. Leaders in business and government alike believe that our knowledge economy will need many more credentialed workers in coming decades. So if a large proportion of those who want a degree fail to earn one, a basic promise of higher education is compromised.

Previous generations saw this as a problem of access, and higher education can tell a proud story of opening its doors ever wider. In 1949, only about 15% of 18- to 24-year-olds were enrolled in college. By 2012, 41% of the traditional age group were enrolled, and six in 10 Americans had at least some college experience.[121] Racial and ethnic minorities, who made up only 17% of the student body in 1971, today account for 44%.[122] It took massive federal investment and determined institutional efforts, but by the late 20th century, commitment to access had become part of the culture of higher education.

> If a large proportion of those who want a degree fail to earn one,
> a basic promise of higher education is compromised.

However, it has become increasingly evident that access doesn't guarantee success. Only about 58% of first-time, full-time students entering college in 2004 to pursue a bachelor's degree had earned one six years later. Those entering community colleges fare less well: only 17% earn a bachelor's degree in six years and fewer than one in three earn an associate's degree in three years.[123] Retention and completion rates are particularly worrisome among institutions with open or non-selective admissions—exactly those most affected by the access revolution.

Figure 22 – Six-Year Graduation Rate of Bachelor's Degree-Seeking Students Entering Four-Year Institutions in 2004
Source: NCES *Condition of Education 2012*
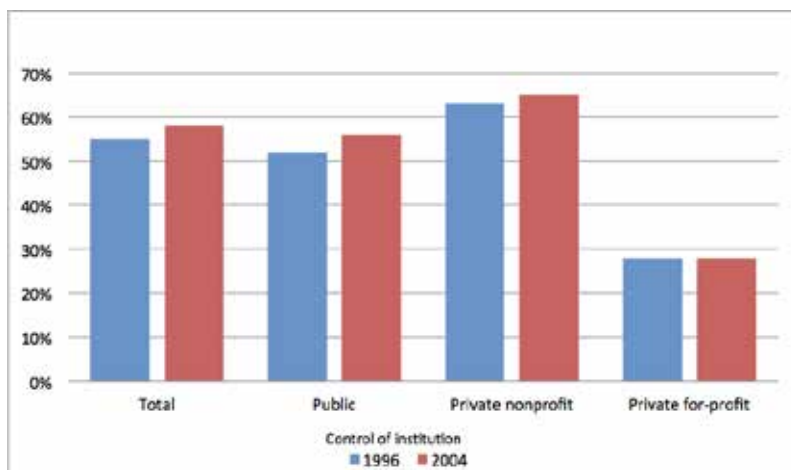
 As state funding formulas and a proposed federal rating system put teeth into calls to improve retention and completion, academic support services—long regarded as an institutional backwater—are getting renewed attention. "Sink or swim" attitudes are receding in favor of approaches that look at all of the factors that influence progress and achievement: advising, study skills, motivation, peer support, life skills, connections to the workplace and to the community, and practical needs like child care or transportation. Some institutions

121 Thomas D. Snyder, ed., *120 Years of American Education: A Statistical Portrait.* National Center for Education Statistics, 1993. Available at: http://nces.ed.gov/pubs93/93442.pdf;
U.S. Department of Education, "National Center for Education Statistics, Digest of Education Statistics 2014," table 302.60. Available at: https://nces.ed.gov/programs/ digest/d14/tables/dt14_302.60.asp.
122 Richard Fry and Kim Parker, *Record Shares of Young Adults Have Finished Both High School and College.* Washington, D.C.: Pew Research Center, November 5, 2012. Available at: http://www.pewsocialtrends.org/ 2012/11/05/record-shares-of-young-adults-have-finished-both-high-school-and-college/.
123 U.S. Department of Education, "National Center for Education Statistics, Digest of Education Statistics 2012," tables 376 and 377. Available at: http://nces.ed.gov/fastfacts/display.asp?id=40;
Doug Shapiro, Afet Dundar, Mary Ziskin, Xin Yuan, and Autumn Harrell, *Completing College: A National View of Student Attainment Rates—Fall 2007 Cohort,* National Student Clearinghouse Research Center, December 16, 2013. Available at: http://nscresearchcenter.org/wp-content/uploads/NSC_Signature_Report_6.pdf.

like Northeastern University create programs for special cohorts of at-risk students, providing structured "boot camp" immersions and a common first-year curriculum to overcome life-skill or study-skill deficiencies or to overcome under-preparation passed along in the student's K-12 experience.

The idea that what surrounds and supports classroom instruction affects educational progress is hardly new. Pricey U.S. private universities and selective liberal arts colleges imbed their well-prepared enrollees within elaborate systems of academic, social, and personal support. The evidence is mounting that "ancillary" services and co-curricular support offerings factor heavily into student persistence, course completion, retention, and eventual graduation.[124]

Unfortunately, as traditionally delivered, these services are expensive and do not scale very well. Extending such services into those cash-strapped institutions that face the very toughest retention and completion challenges is unrealistic. Institutions need better and more cost-effective solutions, and an eager marketplace proposes to offer them. This may be one case where the incumbents *want* to be disrupted.

Disruption of Student Learning Services

As a new student learning services ecosystem emerges, it is being shaped by four related kinds of disruption:

- the institutional challenge of adopting a culture of student success in an era of declining funding;
- a digital solutions marketplace increasingly able to deliver student learning services without heavy up-front investment by institutions;
- the growing availability of do-it-yourself learning services that free students from institutional dependence; and
- an alliance of leaders (politicians, philanthropists, publishers, and technologists) keen to persuade or coerce higher education into new practices.

Student success might seem to be a thing everyone can approve of. Yet after decades of pursuing an access culture, many college and university leaders are learning that engendering a success culture requires major adjustments and investments.

There are many points of friction between the two cultures. When funding is based on how many seats you fill and not on how many credentials you confer, state subsidized institutions have little incentive to deny admission to unprepared students or to fully fund support services (like academic advising). In such situations, there simply is no institutional penalty for a student's failure to succeed. In fact, among some faculty in some academic disciplines, high failure rates are a point of pride and evidence of rigor. Success culture, shaping itself around the growing performance funding movement, has more incentive to plug retention leaks. Access culture emphasizes equality of opportunity, choice, and self-realization; sometimes to the point of confusion. Success culture puts more emphasis on structure, planning, regular advisement, and tracking of progress. The access movement tacitly said, "We'll let you in, but then it's up to you." The success movement challenges faculty members who see the responsibility for achievement as resting with the student to acknowledge (and operationalize) students' success as a responsibility they share.

Despite this tension between old and new priorities, a wave of success-related innovations is moving through higher education. Many elements of the "completion agenda" may be seen in an institution designed around it: the newest member of the CUNY system, Guttman Community College. Guttman's programs emphasize structure and guidance over choice. Guttman programs feature full-time study, close and frequent advising, and strong collaboration between faculty and staff, and are fortified by advising and assessment technologies. CUNY's ASAP program extends similar ideas to selected students throughout the system.[125]

The great challenge as higher education re-balances access and success is to find cost-effective solutions. A good example is academic advising, which success-oriented institutions value because it builds bonds

124 For an overview, see Colleen Moore and Nancy Shulock, "Student Progress toward Degree Completion: Lessons from the Research Literature," Sacramento, CA: Institute for Higher Education Leadership and Policy, September 2009. Available at: https:// moodle.elac.edu/mod/resource/view.php?id=30603.

125 Nan Bauer-Maglin, Camille Rodriguez, and Alexandra Weinbaum, *Putting Students at the Center at Guttman Community College: Accomplishments and Challenges in the Inaugural Years*, Guttman Community College, 2014.

between students and their institution, and because good advising helps ward off nonproductive credits. Unfortunately, it is expensive as traditionally practiced. Selective liberal arts colleges average about 100 students per advisor; community colleges, with much more serious retention problems, average 441.[126] Ratios of 1000:1 are not unusual. Under-investment in advising like this can only function if large numbers of students never visit an advisor. Though many students are capable of self-advising, it is likely that those least able to self-advise are also the ones least likely to ask for help. Tutoring, coaching, and career advice services all share similar economics.

> The great challenge as higher education re-balances access and success is to find cost-effective solutions.

Enter a host of technology entrepreneurs, who propose to re-invent student learning services in much the way their predecessors re-invented instruction through online learning. In some cases, the entrepreneurs are in fact established providers like Oracle, Ellucian, and Blackboard. In other cases, they may be re-focused providers like Hobsons (which began as a publisher), or newer entrants like College Source. What these providers' information systems share is the capacity to help institutions identify at-risk or unguided students for targeted attention, build better self-service resources, track advising case histories, and equip limited staff and faculty resources with information to make them more effective.

Importantly and increasingly, institutions that can't or don't want to manage a new set of enterprise systems on campus can employ Internet-delivered cloud services that are shared by a large base of customers. Instructure, whose Canvas learning management system was introduced in 2012, and Starfish (which offers a popular student success suite) are both cloud-based services serving enterprise customers. Such services help institutions deliver better learning services without a large up-front investment in time and money.

> The potential to transform or add learning services that behave as variable costs rather than fixed costs creates for the institution the potential to expand services without expanding costs at the same rate.

Still more radical are business process outsourcing options that combine cloud services with human services. One such company, InsideTrack, contracts with institutions to deliver regular telephone-based coaching sessions to students, drawing on a nationwide network of certified coaches. Similar services are available for tutoring (Smarthinking) and career advising (Graduation Alliance).[127] Though the cultural leap of entrusting student interactions to a third party is a large one, these services can draw on a far larger body of talent, and make much more efficient use of resources, than can most institutions that depend on local hiring and are limited by staffing constraints. Moreover, in the Internet cloud-delivered service model, one only incurs a cost when or if a service is consumed, while traditional "on premise" services are built on a just-in-case basis. The potential to transform or add learning services that behave as variable costs rather than fixed costs creates for the institution the potential to expand services without expanding costs at the same rate.

Perhaps the most disruptive trend of all, however, is the widespread ability and willingness of students to seek, discover, and consume services of all kinds, including educational ones. Online learning is hardly an innovation anymore; more than five million students, about 25% of the total, took an online course in fall 2012.[128] Taking the "access revolution" a large step further, massive education aggregators (e.g., Coursera and EdX), sites like Khan Academy and lynda.com, and YouTube define a spectrum of online learning from formal to informal.

Increasingly, online and classroom courses alike are being reinforced with online student learning services. They can get help from each other via LMS chat rooms, discussion boards at MOOC providers, "homework

[126] Aaron Carlstrom and Marsha A. Miller, eds., "2011 NACADA National Survey of Academic Advising." Available at: http://www.nacada.ksu.edu/Resources/Clearinghouse/View-Articles/2011-NACADA-National-Survey.aspx.

[127] A study conducted by the Stanford School of Education on InsideTrack's behalf found that 12-month retention was five percentage points higher among coached students than non-coached controls, describing the effect as "large when compared to other interventions."

[128] U.S. Department of Education, National Center for Education Statistics, *Enrollment in Distance Education Courses, by State: Fall 2012* (June 2014). Available at: http://nces.ed.gov/pubs2014/2014023.pdf.

help sites like Chegg and 24HourAnswers.com, tech communities like GitHub and StackOverflow, or simply through their Facebook pages or Twitter accounts. There are services for purchasing class notes (NoteUtopia), sharing test questions (koofers.com), and getting "help" writing or editing papers (some more reliable than others). Of course, Amazon and other online retailers are happy to provide the course materials—links to them may be imbedded in LMS or MOOC sites—as are OER providers and low-cost, barebones digital publishers like Leanpub.

The crowd-sourced, entrepreneur-fostered student learning component of the ecosystem steps in from the very beginning. A wide variety of formal sources (such as *U.S. News and World Report* and College Match) and informal systems help our students choose their college. Once enrolled, students vet courses in advance through crowdsourced sites like RateMyProfessors.com. This site claims 15 million reviews of 1.4 million instructors, each including a "hotness" rating. Competing services include myEdu, Professor Performance, and koofers.com. This form of "access" to consumer information is one that institutions never dreamed of, and it has an undeniable impact on the way students choose courses. According to NACS' Student Watch™ data for spring 2014, more students used RateMyProfessors.com to research instructors (40%) than used word of mouth from fellow students (37%). By contrast, only 19% relied on faculty or staff advice—fewer than those who did no research at all.

Figure 23 – Sources Used to Research Courses/Instructors | Source: NACS' Student Watch™
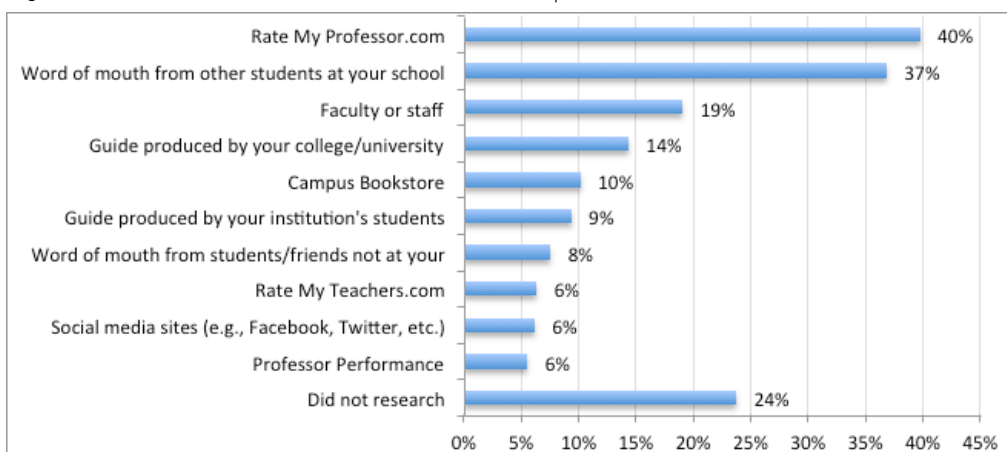
The accent has been placed on RateMyProfessors.com because this example illustrates how digital technologies are effecting a profound shift in the balance of academic power. This shift in turn opens up a vista of truly revolutionary transformation. Almost all of the elements of higher education are available now "by the drink," from courses to course materials to social networks to credits earnable by exam or prior experience. Student learning services that help students jump the gap between study and success are no exception. Some visionaries call on "edupunks" to cut out the institutional middleman altogether and "hack your own education" by assembling pieces into a personalized educational mosaic.[129] Accredited and other organizations are issuing "micro credentials" (e.g., digital badges) while institutions like Antioch University position themselves to become badge aggregators and certifiers. And as intra- and extra-institutional authorities begin to define and promulgate professional competencies, the unbundling potential of digital technologies stands to be supercharged.

That is further than most would like to go, and it begs the question of how students who flounder in a structured institutional environment would succeed in such a structure. But disruptive ideas about higher education have unquestionably enjoyed support from an unusual coalition of power and money. Leaders urging better demonstrations of success and lower costs bridge a political spectrum that includes both President Obama and his potential successor, former Florida Governor Jeb Bush. The Bill and Melinda Gates Foundation alone has spent roughly $500 million on higher education reform since 2006 and expects its mission to continue through 2028.[130] The Lumina Foundation has contributed another $250 million. This lavish funding has fueled a boom in learning services experimentation and underwritten a long list of advocacy

organizations, including Complete College America, Achieving the Dream, the Aspen Institute, and Completion by Design.

Virtually all of these players agree that technology will play a significant role in delivering new learning services at affordable cost. Private investors clearly agree as well. Venture funding in U.S.-based educational technology companies averaged more than $100 million *per month* in 2013-14.[131] Combined with foundation investments, this river of money is the chief reason students enjoy established or emergent consumer alternatives to so many institutional services. Most of these ventures will fail, but they are already reshaping higher education, and the successful ones could be transformative.

Competitive Dynamics

Key Trends

- **Pressure on higher education** to adopt more active measures to improve retention, completion, and other student success measures
- **Innovations in advising, coaching, at-risk identification**, and other learning services
- **Generous political and foundation support** for the "completion agenda"
- **Highly active entrepreneurial climate** in enterprise student success services and technologies
- **Rising consumer marketplace for student learning services** such as tutoring and career advice
- **Confused ownership of key information and processes** related to student success
- **Absence of an integrator** to help students collect, synthesize, and personalize learning services

Rivalry within the Sector

Student learning services is not yet a sector in the usual sense. But **there is an ongoing competition between different services, philosophies, and modes of delivery**. Institutions, publishers, technology vendors, services firms, "edupreneurs," "edupunk" activists, and students themselves are all laying ownership claims on student success and the services that promote it.

> To the extent that student learning services cohere in the institution, the college store could play a role in sourcing, distributing, and brokering services contracted by the institution or sought by students themselves.

The key question for college stores is to what extent this growing portfolio of learning services will be assimilated into a "continent" by today's predominant institutional providers, or will be atomized among an "archipelago" of many providers, of which the institution is only one. To the extent that student learning services cohere in the institution, the college store could play a role in sourcing, distributing, and brokering services contracted by the institution or sought by students themselves. Partnering with academic support administrators and taking advantage of its physical presence, the store could be a convenient place to find a tutor, sign up for a career assessment, or acquire study skills materials. This site-based model could provide a degree of insulation from the centrifugal force of web-based student services.

Of course, even an institutional locus for student learning services is no guarantee of a favored position for the store. Publishers like Pearson and Cengage could promote the same institutional licensing strategies with learning services they have brought to courses and course materials with or without college store involvement. Amazon's incursion into the physical campus demonstrates that virtual retail can make itself concretely present.

130 Marc Parry, Kelly Field, and Beckie Supiano, "The Gates Effect," *Chronicle of Higher Education*, July 14, 2013. Available at: http://chronicle.com/article/The-Gates-Effect/140323/.
131 Michael Winters and Tyler McNally, "2014 US Edtech Funding Hits $1.36B," edSurge.com. Available at: https://www.edsurge.com/n/2014-12-23-2014-us-edtech-funding-hits-1-36b.

As to the archipelago scenario, much in the logic of today's virtualizing economy and social media-driven personal interactions suggests permanent fragmentation of student learning services. To be sure, the institution will remain one of the bigger islands, and upstart providers like Chegg, with its "student hub" suite of consumer online services, could stake out substantial territories of their own.

Yet the centrifugal power of the networked society continues to disintermediate industries and institutions, including emergent ones. Students can self-educate to a greater degree today than ever before, and in parallel fashion they have more opportunities to interact with each other and potential counselors and advisors. Due to factors like cost, convenience, and suitability for particular needs, students may "satisfice" (adopt "good enough" solutions rather than optimal ones) in student learning services much the way they do when acquiring course materials. When RateMyProfessors.com attracts twice as many student course-choosers than institutional advisors do, the hypothesis that more advising will improve success comes into question, not because advising is ineffective, but because students prefer a different solution. We still don't know if students will prefer the simplicity and coherence of a consolidated learning services provider, or the freedom to assemble services on the fly.

Though an "archipelago" outcome presents serious challenges for the college store, fragmentation could present an opportunity as well. With so many sources of information and service, it's easy to see a role for a "learning services integrator" analogous to a systems integrator in an IT shop or a case manager in health care: a broker and orchestrator of services helping students understand which institutional or commercial learning services to use, how to gain best advantage from them, and how to get them to work together harmoniously. Though institutional academic support staff might evolve into this role, institutions are struggling even to scale up traditional services. Insourced, outsourced, or arranged through a distributor/aggregator (such as the college store), the learning services integrator could bring some clarity to a process disrupted for suppliers and consumers alike.

Bargaining Power of Suppliers

No doubt idealism plays an important role in the movement to improve student success, but a new set of carrots and sticks (from juicy foundation grants to funding formulas) is driving institutions to up their student success game. Especially among less selective public institutions, administrators at the very least need to make a good show of trying to improve retention/completion. Performance funding, now adopted in more than 30 states, probably will lock in success awareness for the long term. While institutions have a lot of latitude about what services to offer, inattention is not really an option.

Fortunately for institutions, **competition among potential providers is intense**. Enterprise software and services vendors benefit from the hype and the seed funding that abounds around learning services, but it is a crowded market with a lot of risk. Many startups are still in a beta (or earlier) phase and are looking for marquee customers and success stories. It will take sustained growth and some weeding out of weaker players before the enterprise-oriented vendors enjoy a strong bargaining position.

Business process outsourcers also face a tough sell, not just because services are immature but because outsourcing resistance, always strong in higher education, is stronger still when it touches the campus-student relationship. These companies will have an easier time in adult education and the for-profit sector at least until they establish a track record. Still, Smarthinking has prospered since its origins in the dot-com boom, and InsideTrack could be a breakthrough: coaching does not require subject matter expertise, lacks existing institutional incumbents, and has big retention potential.

Consumer-oriented learning services sites have even less leverage. Students acculturated to the idea that online services are limitless and free could well resist paying even nominal fees like the $15 per month Chegg charges for its homework service. Advertising is a potential revenue source where (as at RateMyProfessors.com) click volumes are high, but such businesses must solve the chicken-and-egg problem of building something worth clicking on. One-on-one coaching and tutoring services are in a better position to charge, but will find most of their customers among the parents of students at more selective institutions.

Threat of New Entrants

Almost by definition, student learning services is dominated by new entrants. The example of Guttman College suggests that we may see a new breed of institution—or re-inventions of old ones—differentiating themselves through aggressive student success measures. But as noted in the introduction, **barriers to entry at the institutional level are huge**.

Not so in the commercial realms of learning services, where cloud technologies have lowered development costs, the "gig economy" mobilizes labor with few strings attached, and venture capital continues to be attracted to educational projects. From big-name publishers looking for ways to replace revenues lost in the decline of traditional markets to tiny startups with a feel for student culture, **the parade of new entrants seen in recent years is likely to continue**. Of particular interest, the OER movement could expand beyond its current focus on textbooks to create OER learning services.

Bargaining Power of Buyers

Institutions contracting for learning services or implementing student success systems have a good range of choice. It's not entirely clear if a market so immature can be called a "buyer's market," but as we have noted, there is real competition among suppliers.

There is no need to repeat the reasons we think students hold a growing advantage in this area. As technology analyst Farhad Manjoo has put it, "The Internet remains hungry."[132] Its capacity to generate lower-cost and free options has made students into educational arbitragers, and this behavior will apply to the learning services marketplace.

Threat of Substitutes

One of the foundational principles of the emerging student learning services marketplace is that traditional student services either aren't there, haven't worked, or can't be scaled to needed size. We face not the threat, but the certainty that new services will be offered, and existing services will be replaced by something different. And it is nearly certain that the services that emerge will not be bound by the cultural, technical, procedural, or policy constraints that characterize the services they seek to replace, or the institutions that provide these services today. Just as wearable technologies, ubiquitous networks, and a growing suite of health applications will change our relationship to our "home" physician and community hospital,

> We face not the threat, but the certainty that new student learning services will be offered, and existing ones will be replaced.

so will the emergence of consumer-targeted student learning services applications and platforms alter our students' ties with and dependence on our colleges and universities. Regulatory pressures to recognize course credits from other institutions and to give credit for prior learning of any kind will add to the potency of emerging offerings in this new part of the ecosystem.

Key Players

Institutional interest in student success is widespread. **A leading edge of aggressive adopters is leading the way and bears watching.** Participants in the Achieving the Dream and Complete College America programs, winners of the Aspen Prize, and a few influential public institutions including Arizona State University, the University of Central Florida, Sinclair Community College, and Austin Peay State University are among those who are shaping the movement.

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132 Farhad Manjoo, "An Online Tune-Up for the Used-Car Marketplace," *New York Times*, April 22, 2015. Available at: http://www.nytimes.com/2015/04/23/technology/personaltech/an-online-tune-up-for-the-used-car-marketplace.html?hp&action=click&pgtype=Homepage&module=second-column-region&region=top-news&WT.nav=top-news.

Vendors offering enterprise tools and services to support student success are another influential group. Software vendors providing student success and analytics solutions to institutions include Blackboard, Brightspace (created by D2L, formerly Desire2Learn), Civitas Learning, College Source, Education Advisory Board, Ellucian, Starfish, and Hobsons. Some of their products are student-facing, self-service tools for advising and study planning, and could evolve in the direction of student learning services.

> The major publishers are important players in the emerging student learning services space—providing the most credible candidate for a "continental" assimilation of the whole spectrum of services outside the institution.

With their investments in adaptive learning technologies, self-paced remediation tools, and new course materials, **the major publishers** are also important players in the emerging student learning services space. They provide the most credible candidate for a "continental" assimilation of the whole spectrum of services outside the institution. Their technology ventures have grown chiefly through acquisition; watch for additional acquisitions of student learning-oriented business process outsourcers.

The "Wild West" of **Internet consumer services providers** is too complex to explore in detail here, but its chief challenge will be to monetize services. Experiments are so plentiful that even a microscopic survival rate could introduce a radical new model for student learning. Chegg's subscription-based homework help service is a radically interesting experiment now in play, both for its business model and for its capacity to generate institutional pushback should "help" cross the line into paid assignment completion. Another student hub service, myEdu, charges employers to access student profiles. Its recent acquisition by Blackboard suggests that the established enterprise vendor sees a future in direct-to-student services.

In the learning services element of the ecosystem as with learning content, **students are the key players to watch**. Experienced administrators lament that the students who need help the most are the least likely to present themselves for supplementary learning services. Whether students will adopt the services they need to make genuine academic gains, to merely "game" the system, or to avoid them altogether remains unknown. However, when fads die out and philanthropic attention drifts elsewhere, it will be student uptake that finally determines the shape of student learning services.

Technologies and Innovations to Watch

- Learning analytics
- Early alert analytics and interventions
- Adaptive learning
- "Intrusive" (proactive) advising
- Coaching and other services addressing non-cognitive issues
- Course/program recommendation engines
- Academic content curation engines and services
- Streamlined "guided pathway" curricula
- 3rd party testing and micro-credentialing
- Outsourcing of coaching and tutorial services—including peer, expert, and concierge-mediated tutoring (Professor Siri?)
- Consumer-oriented learning services, including services like 60secondrecap.com for video-based Cliff's Notes to the Cliff's Notes, annotation sites, review sites, abstracts, simulations, etc.
- OER reconceived beyond content, into open services
- Social commerce (rating) sites
- Virtual and on-ground academic boot camps and bridge programs

Critical Questions: Learning and Success Services

1. What is the state of learning and success services on your campus? Does the variety and supply meet the needs of the student body? Do students or staff talk of too few or missing services?

2. What learning and success services are your students currently using? How well are learning and study aid products selling through your store?

3. Are there signs of student self-sourcing for these products and services (such as student-sponsored tutoring or study programs, or questions about/use of online support services)?

4. To what extent are students seeking product support and help with maximizing the benefit of homework and online learning courseware assigned or recommended for their classes?

5. What role can your store play in aggregating, curating, and/or providing student learning services for your campus? Are there ways the store can partner with existing campus services, publishers, or online providers to be a physical location, broker, or other partner?

Further Readings

Bettinger, Eric P. and Rachel Baker, 2011. *The Effects of Student Coaching in College: An Evaluation of a Randomized Experiment in Student Mentoring*. Palo Alto: Stanford University School of Education. Available at: https://cepa.stanford.edu/sites/default/files/bettinger_baker_030711.pdf.

Duckworth, A.L. et al. "Grit: Perseverance and passion for long-term goals," *Journal of Personality and Social Psychology*, 92(6), 1087-1101. Available at: https://upenn.app.box.com/DuckworthPeterson.

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Heisserer, D.L. and P. Parette, "Advising at-risk students in college and university settings," *College Student Journal*, 36(1), 69-84.

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CONCLUSIONS

"Experts are coming under pressure from new voices who are early adopters of new technology. New organizations are emerging to deal with the social, cultural, and political changes. There is a struggle to revise the social and legal norms—especially in relation to intellectual property. The concepts of identity and community are transformed and new forms of language come into being. And of course educators are pressured to prepare their students for the newly emerging world." This was how University of Michigan historian Elizabeth Eisenstein described the dislocation and transformation of Europe in the wake of modern printing.[133]

While the parallels with our own digital disruption are striking, it is important to realize that in the 11th century, less than 1% of Europeans could read, and that, by Gutenberg's time, "the pursuit of learning was still identified almost exclusively with religious life and was conducted entirely in Latin." The changes wrought by the printing revolution—while transformational—unfolded over decades and centuries.[134] Our digital revolution—fueled by Moore's Law, the near ubiquity of networks, and the universalization of English as the global language of business—is by comparison unfolding overnight. As former Intel CEO Andy Grove once remarked, "The world now runs on Internet time."

Never in its history has the learning content ecosystem experienced such widespread uncertainty and change. Campus store operators need to make decisions every day, but must also think and act strategically. While this paper has filtered its findings to those worth tracking, busy managers can only focus on so many moving parts. So what are the trends and high probability scenarios that merit tracking over the next few years on any learning content seller's dashboard?

Vectors of Change

There will be continued momentum in digital, mobile, social, and connected

Despite the breakneck pace of change, we are only now in our digital young adulthood. Our digital infancy was an age of invention in which digital computers, semiconductors, software, network protocols, fiber optics, and storage technologies were invented. Our digital childhood witnessed radical improvements in technology price-performance and miniaturization, and the emergence of a nearly ubiquitous global data communications infrastructure. The hallmark of our digital adolescence was the deployment of the web and the near-immediate digitization of all recorded information in any form. Our young adulthood is framed by the widespread availability of wireless networks and our ability to carry our network-based data, services, and social relationships and communities with us at all times. As our adulthood unfolds, our physical, logical, and social (including professional) networks will expand through an Internet of Things and our digital interactions will be abetted by wearable and ultimately imbedded devices. The air we breathe will be filled with drips of digital dialogue, buckets of great books, and torrents of big data on a 24/7 basis.

We are only now in our digital young adulthood.

As the digital age matures, student and faculty preference for printed learning content will dissolve as digital content becomes cheaper, more multi-dimensional, more convenient, more mobile, and easier to interact with in a socially rich way. Already three-dimensional holographic displays can be found in research

133 Elizabeth L. Eisenstein, *The Printing Revolution in Early Modern Europe*, 1979. Cambridge: Cambridge University Press.
134 James Brown, *A History of Education, Volume II – Sixth to Sixteenth Century*, 2003, first published 1975. London: Routledge, pp. 64 and 164.

labs like Microsoft.[135] The shift to digital is creating dis-economies in print production of learning content, just as it has with magazine and news content. Rising print costs will hasten digital migration and stoke demand for trailing-edge, print-on-demand services.

In this metaphorical context, digital adulthood quickly converges on science fiction. Beyond our five-year planning horizon, autonomous, self-learning machines (think IBM Watson) connected to each other and to us via the Internet will liberate humans from many of the time-consuming aspects of living and learning in the way search engines reduced the time we spend hunting for answers. Digital concierges will equip every student with a personal digital tutor configured to their learning styles and preferences. Ubiquitous access to 3-D holograms, immersive worlds, dazzling simulations, and personalized tutoring will change how we teach and the roles of teachers. Perhaps technologies that liberate teachers from their role as factual transmitters will foster pedagogies like the master-apprentice aspects of graduate education. Faculty members, librarians, and college store professionals in this future will surely be needed to vet the quality of online tools and resources, to integrate and contextualize them for students, and to focus on developing students' "information literacy" so that they will not be flummoxed by bad data, bad analysis, or quirky algorithms. The future technologies that make scholarship quicker, may also make it dirtier.

> Faculty members, librarians, and college store professionals
> in this future will surely be needed to vet the quality
> of online tools and resources.

The focus on student success will intensify

Parents, policy makers, venture philanthropists, and students will continue to pressure colleges and universities to shift the accent on undergraduate education to degree completion and workforce integration. This trend will be resisted, within limits, at well-endowed and highly selective institutions, but will likely prove irresistible overall. Improved and widespread uses of data analytics will lead to a deep understanding of the complex determinants of student success, including the role played by course materials.

Of particular importance to college stores, the empirical relationship of adopted learning content to student success will come under scrutiny. This connection is being made already. Lumen Learning—which produces, distributes, maintains, and supports college-level open education resources—claims not only that their clients replace $150-200 textbooks with a $5 course materials fee, but that "Lumen-supported courses typically yield higher pass rates compared to courses using commercial materials." Claims like these will be tested under a variety of conditions, but if borne out will provide a powerful lever with teachers, students, provosts, policy makers, trustees, and others.

Giants and minnows will dominate competition

Harvard Business School's Michael Porter established that a firm's sustainable competitive advantage sprang in part from three generic strategies: (1) cost leadership; (2) differentiation; or (3) focus (market, geographic, etc.).[136] Today's disruptive conditions facing both firms and institutions in the learning content ecosystem put a heavy accent on these core strategies. The Internet-based delivery of learning content has fundamentally changed the scale of competition, the intensity of rivalry among firms in each element of the ecosystem, and the distribution of power between content creators, publishers, distributors, retailers, and consumers. In short, digital technologies have created the competitive conditions that favor "giants and minnows."[137] While the forces that have changed power distribution (including pricing power) have been exceptionally hard on independent booksellers, they have generally benefitted the consumer. Prior to the emergence of giants like Barnes & Noble, Borders, Follett, Ingram, NACS, and now Google, thousands of campus bookstores and libraries interacted directly with hundreds of academic publishers. It was a case of Godzilla meets Bambi. Large publishers had (and many top tier academic journals still have) complete power over retail pricing. Buying and selling used textbooks was completely fragmented and local. The emergence of wholesalers,

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[135] Lisa Eadiciccho, "Microsoft Just Showed a Live Demo of its Crazy Holographic Computer," in *Business Insider*, April 29, 2015.
Available at: https://mail.google.com/mail/u/0/#search/lander%40appa.org/14d066c951e7cc87.

[136] Michael Porter, *Competitive Strategy*. Illinois: Free Press, 1980.

[137] Frances Cairncross in *The Death of Distance* described how changing technologies and regulations transformed
the telecom industry into minnows and giants. Cambridge: Harvard Business School Press, 1997.

bookstore chains, contract store operators, and Internet giants has strengthened buyer power within the ecosystem at a time when supplier power is also rising via the contraction in the number of academic publishers.

Today's learning content ecosystem is increasingly dominated by giants. Five publishers account for the vast majority of all course-related learning content sales and fewer than 10 publishers account for nearly all academic titles produced and destined for university libraries. A smaller number of wholesale distributors create bundles of digital journals for license to academic libraries or manage the flow of new and used textbooks and other learning content to and from college stores. A majority of U.S. college stores is now operated under contract by two large firms and the textbook rental business is also the province of giants.

The proverbial elephant in the room is Amazon. While there are legacy industry players that offer online-only store operations for course materials, the Amazon Campus announcement in February 2015 heralds a significant escalation in the possible "scale war" in the sale of learning content. Amazon will pay at least $1.45 million to UMass over three years and $1.7 million to Purdue for the right to access these schools' course-selection software, according to the *Wall Street Journal*. The Amazon Campus initiative is important for many reasons, including:

- Signaling a significant increase in Amazon's commitment to the learning content market;
- Establishing college campuses as beachheads for Amazon's planned same-day delivery capability;
- Injecting Amazon into the pricing and licensing fray with academic publishers;
- Setting the stage for a possible Amazon entry into academic publishing in the way that it has become a force in the publishing of general fiction;
- Displacing or partnering to become the retail channel for rental and fulfilment giants like Chegg and Ingram; and
- Stimulating or accelerating students' transition to digital course materials. Amazon is the big dog digital books market. Customer relationship management that includes cloud storage, access management, and multi-mode delivery are core elements of that firm's competitive advantage. In general literature, Amazon encourages customers to switch to digital consumption through sophisticated price discrimination. NACS data suggests that such a pricing strategy may be highly effective with college students. And while current tablets and e-readers have room for improvement as full-fledged academic content platforms, Amazon is in a position to lead the creation of an e-reader that is optimized for academic reading.

On balance, Amazon's full entry into the academic learning content marketplace is likely to benefit students by increasing price competition. This move will challenge those independent and contractor-managed college stores that do not choose to partner with Amazon. And Amazon's entry will provide those stores that face shrinking profit margins and declining learning content sales with an option that retains a revenue stream while liberating staff time and space for support of other store activities. For colleges and universities, Amazon's superior data mining and analytics make it likely that the retail giant will come to know their students better—as academic consumers—than they do themselves! This can augment the student experience in positive ways, but it also may push the boundaries of academic policy in new ways. Will faculty members agree, for example, with advice offered to students for further readings that comes from Amazon's recommender engines? Will Amazon's retail prowess lead to more student spending and more credit card debt, even if spending on learning content declines?

For other giants in the ecosystem, the Amazon Campus initiative sends a clear signal to either bulk up or change the game. Mid-size players in the ecosystem playing under the current rules of the game may be in the wrong part of what Daniel Pink calls the "Well Curve." Simply put, the Well Curve predicts—and U.S. Census data confirms—that over time "big firms grow bigger, the small multiply, and midsize enterprises are waning."[138] And college stores should pay attention as well to giants that are not currently a significant part of today's ecosystem. According to a new report from *Business Intelligence*, Google, eBay, and Uber (like Amazon), are operating and expanding services that allow shoppers to order something online and have it that same day, without ever leaving home. "If they manage it, these companies will grow e-commerce's customer base (as well as its share of retail dollars), and siphon off one of offline retail's last real competitive advantages."[139]

[138] Daniel Pink, "The Shape of Things to Come," in *Wired*. May 2003. Available at: http://archive.wired.com/wired/archive/11.05/start.html?pg=2.

[139] Cooper Smith, "Same-Day Delivery: E-Commerce giants are battling to own the 'last mile'." April 29, 2015, email from *Business Intelligence*.

The need to bulk up is fueling vertical and horizontal integration among the giants. It is likely that in the future we will see the emergence of learning services aggregators and student portals as firms like Blackboard and Chegg seek to become giants and grow—by acquisition—deeper into the education "market." LMS provider D2L, for example, announced in April 2015 that its new adaptive learning engine would feature an adaptive learning and semantic mapping engine, reflecting the learning platform's commitment to adaptive and game-based learning. That software company's CEO is clearly staking out territory typically claimed by publishers: "Adaptive learning has been sort of like this mystical black box that only the elite publishers could access and use…it wasn't something that everyone could use or even think about how they could use it."[140]

The elite publishers, of course, aren't standing still and we can expect to see their continued diversification into higher-value courseware manufacturing. Already, Pearson, Wiley Global Education, MacMillan Education, Houghton Mifflin Harcourt, Cambridge University Press, and others have partnered with relative newcomer Knewton for that company's adaptive learning platform. As learning content goes digital and as everything (even teachers) comes to be "imbedded" in courseware, some publishers may opt to vertically integrate into teaching institutions themselves. Such institutions could fully integrate rich courseware and digital content, and feature unparalleled internship and workforce links to the parent company. Think Pearson College.[141]

> To compete with giants, campus stores will need to link learning management, library, and student information data with POS data to create rich 360-degree views of students.

The central takeaway of the Well Curve is the proliferation of small "minnows"—quick and nimble firms and college stores that compete through speed, agility, differentiation, or product-market focus. College stores have long differentiated themselves by leveraging their special relationship to the institutions and students they serve. University of Colorado Boulder Administrative Vice Chancellor Steve Thweatt summed it up nicely: "A retail outlet says a lot about an institution." This said, in the age of Amazon, affiliation with the institution is likely to be a necessary but insufficient basis for competitive sustainability. To compete with giants, campus stores will need to link learning management, library, and student information data with POS data so that they can collectively create rich 360-degree views of students. Such integration can add immeasurable richness to other learning analytics and to our understanding of students' academic and financial strengths, preferences, aspirations, and challenges. No doubt such integration efforts will raise policy flags. But in the end, efforts designed to promote student success will trump privacy and other concerns. Such efforts are not only pedagogically sound, but customer intimacy is one of three "value disciplines" believed to support competitive sustainability.[142] Data and models thus created will help the college store, but more importantly they will help the college or university craft an experience designed to promote student success and loyalty.

College stores will need to act on the data and models they develop to forge durable relationships with students and faculty adopters. NACS' Student Watch™ data reveals a sharp decline among four-year college students in use of the college store between the freshman and senior years. Amazon, no doubt, is counting on making lifetime Prime customers of our students and operationalizes this intent through continuous contact. College store partnerships with the campus library, student services, and others may unlock sources of ongoing advantage that cannot be duplicated by either minnows or giants on the outside.

140 Roger Riddell, "D2L Focuses on Adaptive in Latest Version of BrightSpace," in *Education Dive*, April 28, 2015. Available at: http://www.educationdive.com/news/d2l-focuses-on-adaptive-in-latest-version-of-brightspace/391421/.
141 Established in 2012 by the publishing and education giant, Pearson College features "teaching content that is built around intelligence we gather from employers… a highly applied and personalized approach. … Staff connections with industry, and internships and industry workshops build students' learning experience." See: https://www.pearsoncollegelondon.ac.uk/discover/why-pearson.html.
142 Treacy, Michael and Fred Wiersma, *The Discipline of Market Leaders*, 1997. New York: Basic Books.

Many higher education services will be unbundled and privatized

Digital technologies are making it possible to unbundle a wide range of student services and processes, to render them digitally, and to provide them—and spread their costs—across hundreds or thousands of campuses. Venture philanthropies like the Gates and Lumina Foundations and private equity firms now view higher education as ripe for disruption and transformation. They are capitalizing efforts to "transform" colleges and universities both from within and without. Many of these efforts and investments are targeted at outmoded and outdated campus-based counterparts. Some target relatively new "concierge" services like coaching. Most leverage younger technology bases and superior understanding of social networking and other technologies preferred by millennial students. And most of these efforts and investments recognize that while higher education demand is mature in the U.S., it is growing at a rate internationally that cannot be supplied within the traditional delivery model.

This trend will likely accelerate and cut both ways. When newly unbundled services are replaced and institutionalized by colleges and universities themselves, these services can represent a pathway to service innovation at an affordable price. Moreover, they can data-wise and process-wise be integrated into the institution's services ecosystem and cost structure, and can be made to appear holistic to the student. When these services are targeted directly to students, they can address genuine and important student needs while raising a host of policy questions. For example, what will check, limit, or guide a private company's use of student tutoring data? Where might legitimate tutoring and do-my-homework-for-me.com collide? What happens to the student experience when a 3rd party advisor suggests that their client—one of our students—transfer to another institution? Will 3rd party courseware, platforms, and services imbed subtle advertising that guides student choices based on revenue rather than learning goals? Such questions will become increasingly complex as the EdTech market matures.

Large firms seeking to become education giants will buy up the promising start-ups and mid-size providers with increasing frequency. Large firms will blend services just as Chegg is integrating tutoring, career coaching (InsideTrack), and textbook rentals. And, like Chegg, they will partner with other giants like Ingram Content to build self-contained ecosystems. Developing such ecosystems under one banner creates rich cross-selling opportunities. While many unbundled and re-aggregated student services will undoubtedly be of high quality, many will not. Neither students, nor their institutions, have a road map to this new and changing landscape. And even high-quality services have implications: richer services in the private marketplace may rob our institutions' services of their customers and raise our students' total cost of education and debt. Imagine, for example, how a high quality, MOOC-based general education curriculum might affect a college or university's revenue model. Many of these services will affect the college store. Posed simply: When Chegg's tutors recommend commercial learning content to your students, are they likely to refer them to your college store?

Courseware will rise in importance and the textbook will decline

The textbook is in trouble. While most of today's students (56%) and faculty prefer printed textbooks, survey and interview data foretell a digital future.[143] Some of this is simply the arc of history and the inexorable progress of digital in virtually all facets of life. Some of this reflects a mismatch between publishers' business models—which depend on a never-ending stream of supplements, new editions, and price increases—and the teaching and learning styles and limitations of students and faculty. Matthew Portner, Ashland University's director of auxiliary services, summed it up well: "If textbook publishers had kept prices stable, the future of the store and textbook would not be an issue. Instead, prices go up every year. Do people complain about the prices of computers? No, they see the value and prices do not keep going up. No one complains about how they are going to afford a laptop. They recognize the value." This mismatch likely figures prominently in the low weight faculty members attach to availability/quality of supplemental materials when they make learning content selection decisions. There are faculty, college store, and student roles at play here, as well. And their decisions and next steps will likely influence the pace of change from textbooks to courseware.

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[143] From NACS 2013 Student Watch™ survey of 10,558 students and NACS survey of more than 1,300 faculty members.
82% of faculty surveyed reported that the print-based textbook was the learning content format they most often assigned.

Figure 24 – Importance of Factors Influencing Faculty Selection of Learning Content (N= 1156) | Source: NACS, 2014

Factor	Percentage
Overall content quality	65%
Cost to students	60%
Familiarity and experience with previous editions	25%
Advice of trusted colleagues	18%
Author reputation	17%
Availability of multiple formats	15%
Availability and quality of teaching aids	14%
Availability/quality of supplemental materials	13%
Ability to integrate course content with LMS	11%
Student convenience	10%
Availability of materials in campus library	4%
Publisher reputation	3%
Other	7%

Remarkably, just over half of the large number of students surveyed by NACS found their required course materials to be very useful or extremely useful. Another 31% found those materials somewhat useful. A significant number of students did not find their assigned course materials useful. Many students act on this belief: 28% of students surveyed did not acquire at least one of their required course materials. Of these students, an average of 3.5 course materials were not acquired for the fall 2014 term (Figure 25)[144]. This data, when matched with our longstanding understanding that many faculty members assign only portions of the textbooks they require and that college students on average read only a small portion of their assignments, defines a marketplace that could only be described as problematic. Through a students' eyes we seem to be assigning expensive textbooks that are neither fully used by the assigning faculty members nor used, even then, by students. We expect students to buy or rent only the most current editions, despite the fact that faculty members are unlikely to engage their students in the supplementary materials that drove up the cost of those current editions. Perhaps as one prominent publisher put it: "Textbooks are dead; they just don't know it yet."

While few academic publishers will go on record with dramatic statements like this, it's likely that many believe it and that all fear it.[145] Flat sales, the widespread availability of materials on the web, a maturing OER market, the long shadow of Amazon, and an increasingly self-reliant student population are leading the largest publishers to reinvent. Too, they see the enormous casualties of digital disruption in newspaper, television, magazine, and related media industries and are scrambling to retain control of their destinies and markets. They understand that unless they change fundamentally, they are chasing an ever shrinking market. That change is to supplant the print textbook with courseware products and services.

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[144] NACS' OnCampus Research® Student Watch™, Fall 2014 Report.

[145] See John B. Thompson, *Books in the Digital Age: The Transformation of Academic and Higher Education Publishing in Britain and the United States.* Cambridge: Polity Press, 2005.
See also, Jocelyn Hargrave, *"Educational Publishing: An industry in Transition in the Digital Age,"* in *TXT*, 2014. Available at: http://www.txtleiden.org/2014/educational_publishing.

Figure 25 – How Students Acquire Course Materials (N= 10,452) | Source: NACS' Student Watch™, Fall 2014 Report
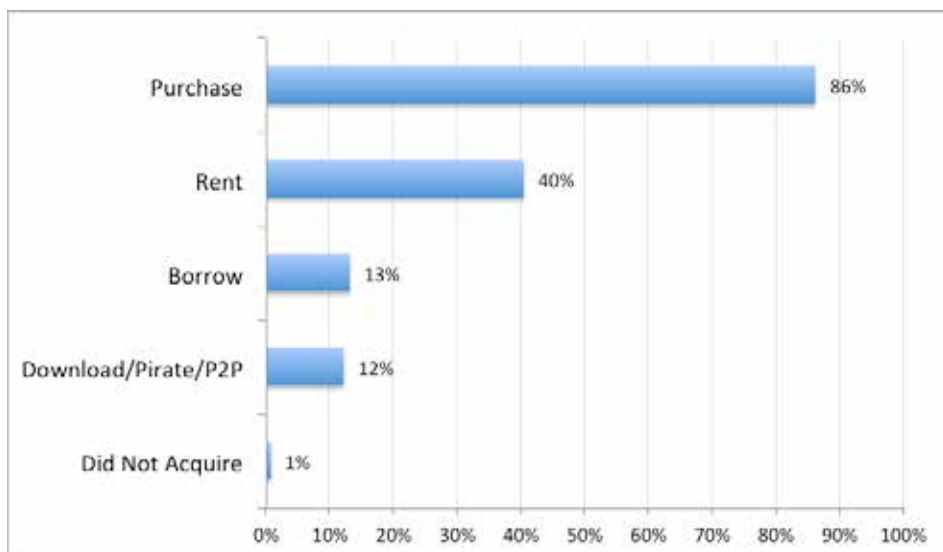
General education courses and programs will become increasingly standardized

Several forces are likely to converge to promote significant consolidation and standardization of general education in U.S. higher education. While we also expect consolidations, mergers, and closures at the institutional level, we do not expect these to be widespread. At the program level:

1. Continued enrollment and cost pressures will pose significant challenges in two-year colleges, state comprehensive universities, and less-selective private colleges and universities.

2. Online learning general education offerings will mature and scale-based experiments like MOOCs will continue.

3. Regulatory pressures to promote easy and transparent credit transfer and to grant credit for prior learning or by examination will likely rise.

4. Accelerating rates of retirement by Baby Boom-generation faculty will present an unprecedented opportunity to eliminate academic programs and departments in favor of centers of excellence within college districts or university systems and consortia.

5. Pressures to demonstrate learning outcomes and workforce competencies will invite tighter scrutiny of course design and delivery and of learning content adoption. These pressures will be reinforced by a growing testing regimen at the level of general education. Standardized testing is likely to come slowly and will exert pressure toward further course standardization. At worst, this could become higher education's rendition of K-12's teaching for the test.

6. Improvements in adaptive learning content, MOOCs, lecture capture, and online course collaboration will create opportunities for institutions to re-think general education. This re-thinking may foster greater standardization, make better use of scale, and lower the cost of both instructors and classrooms. Course redesign—as advocated and fostered by the Center for Academic Transformation—may move into the mainstream. Bowing to pressures to share services, college football conferences may leverage their contractual and other affinities into the academic arena. Look for *Introduction to Shakespeare, the PAC-10 Way*!

The power of the student-as-consumer will rise

No trend seems either so likely or so potent. The widespread availability of broadband wireless networking has made it possible to "go to the movies" in a theater, our family room, in any room of our home, or anywhere our tablets and phones can connect. Movie theater attendance was lower in 2014 than in any year since 1995.[146] Enrollment in virtual high school in the U.S. is now estimated to exceed 200,000—up from less than 50,000 a decade earlier.[147] In 2012, one-quarter of all U.S. college and university course enrollments were online. More than 11% of U.S. undergraduates and 22% of U.S. graduate students were enrolled in fully online programs.[148] Modern technologies are liberating time in unprecedented ways, making our lives more convenient while altering the social component of our lives and putting new strains on the brick-and-mortar institutions we built to facilitate those social interactions.

By design or by the accident of funding constraints, U.S. educational policymakers have in 75 years converted higher education from a public good to a consumer good. The implications of this shift are profound. One result has been to usher in a generation of "hopeful and fearful" student consumers often accompanied by their "helicopter" parents. This generation has been labeled by some as academically adrift, self-centered, and part of an evolving free agent nation.[149] We are in the midst of an enormous power shift in teaching and learning. Ashland University's Interim Provost Douglas Fiore put it this way: "Today, information is out there now and faculty are not the only source." Such a shift happened before. The invention of modern printing set the stage for the Protestant Reformation and Age of Enlightenment. Some members of our faculty must wonder if they are the modern equivalents of 16th century monks and priests.

Raised in the certainty that happier alternatives are only one click away, many of today's empowered students "swirl." According to the National Student Clearinghouse Research Center, "one-third of students transfer from one college to another before earning a degree. More than a quarter of these transfers cross state lines and, contrary to most of our assumptions, they are more likely to switch from a four-year college to a two-year college rather than the other way around."[150]

Today's college students spend considerably less time studying on average than did any previous generation, yet they enjoy higher grades. Most spend less money on learning content, and too many "demonstrate no significant improvement in a range of skills including critical thinking, complex reasoning, and writing." One four-year university student confessed: "I rarely actually do reading assignments or stuff like that (a 150-page book), which is a mistake I'm sure, but it saves me a lot of time."[151] Digital technologies empower students throughout the achievement spectrum. Attendance of lectures and tutorials at Oxford University has seen a steady decline. To set things right, that institution debated implementing contracts to require students to attend lectures and tutorials.

To keep students engaged, many institutions are "flipping the classroom." These institutions are replacing lectures in high enrollment lower-division lecture halls with those that are continuously available on digital media. Teachers are using liberated lecture hours for deep dives, problem-solving, guest lectures, or other offerings preferred by students. Few U.S. colleges and universities today are building new, large lecture halls.

Future students will arrive on campus already fully socialized to online learning. They will expect their advanced placement exam scores and international baccalaureate courses to accelerate their paths through college. They are likely to become increasingly impatient with course bottlenecks and will expect their institutions to accept transfer credits without question or surcharge. They will question their faculty's assignment of learning content by voting with their feet and their wallets. And in many states that face enrollment declines and in tuition-dependent private colleges, administrators will be under significant pressure to accede to these students' wishes—particularly where students may be paying the full tuition cost. These trends will have a

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146 Angie Han, "Movie Theater Attendance Hits 20-Year Low," in *Film*, January 2, 2015. Available at: http://www.slashfilm.com/box-office-attendance-hits-lowest-level-five-years/.

147 G Miron, B. Horvitz, and C. Gulocino, Virtual Schools in the U.S., 2013: *Politics, Performance, Policy and Research Evidence*, May 2013. Available at: http://nepc.colorado.edu/files/nepc-virtual-2013-section-1-2.pdf.

148 Scott Ginder, "Enrollment in Distance Education Courses, by State: Fall 2012," National Center for Education Statistics, June 2, 2014. Available at: http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2014023.

149 There is a substantial and growing literature about the current traditional age college population. See, Arum and Roksa, *Academically Adrift*, Howe and Strauss, *Millennials Rising*, Levine and Cureton, *When Hope and Fear Collide*, and Pink, *Free Agent Nation*.

150 Jeff Selingo, "The College Swirl," in *Chronicle of Higher Education*, March 8, 2012. Available at: http://chronicle.com/blogs/next/2012/03/08/the-student-swirl/.

151 Arum, Richard and Josipa Roksa, *Academically Adrift: Limited Learning on College Campuses*, 2011. Chicago: University of Chicago Press, page 4. Arum and Roksa refer here to Mary Grigsby, *College Life Through the Eyes of Students*, 2009. Albany: SUNY Press.

direct bearing on college stores. Fully online learners and students that test out of lower division courses are less reliant on textbooks, commercial or other. In many disciplines, the locus of learning content acquisition shifts from the retail outlet to the library or laboratory as students move into upper division work.

Future students will continue to enjoy a growing range of delivery and support choices online. Some of these offerings will be sponsored by the institutions they attend. Other services—tutoring, testing, coaching, homework assistance, advising, even coursework—will be provided by the growing ranks of edupreneurs, publishers, and others. For enterprising institutions and consortia like EdX, providing online courses and academic services to students at other "home universities" is likely to become an important revenue source or source of institution influence. Some of the outside services students of the future consume will be of dubious value and that will become a challenge for both the student and the home institution. More likely, many of these services will set a high standard for quality, service, and production values that the home institution cannot match. In this regard, the erosion of college store sales by Amazon, Chegg, and others can be viewed as a glimpse at higher education's future. Edupunks and edupreneurs will compete across every dimension of institutional life for the student dollar, adding gasoline to an already-smoldering consumer fire.

Finally, a revolution is underway to transform how student dollars can be collected. New device-based payment systems and student-centered e-marketplaces will make mobile commerce easier. ApplePay, LoopPay, CurrentC, Square, Google Wallet, and others are leading this charge. The founders of Circle are aiming to use Bitcoin to drive the move into peer-to-peer payments. That emergent industry is currently led by companies like Venmo, a PayPal-owned application that allows friends to quickly send one another money rather than using a check or bank transfer. Goldman Sachs and IDG Capital Partners just led a $50 million investment in a start-up that aims to use the technology underlying Bitcoin to improve consumer payments.[152] As these technologies mature, they will facilitate peer-to-peer commerce among and between our students, setting the stage for learning content marketplaces that bypass intermediaries. Physical textbooks, like Uber cars, may become the next goods to be shared via simple geo-location, RFID tracking, user authentication, and mobile, peer-to-peer payments. Prices for shared textbooks, of course, go up during premium midterm and finals!

Scenarios

Niels Bohr warned that "*prediction* is very difficult, especially if it's about the *future.*" While the key trends described here and sources like the Horizon Report are measured and perhaps even conservative, they still fail to allow us to "resolve the future."[153] Perhaps the best we can do is to weave credible scenarios that follow from key factual findings and make some unscientific speculations about the probability of each scenario.

1. **Status quo ante or the heated frog.** While it is apparently not good science, the heated frog story is a sound management parable. Legend has it that if one places a frog into boiling water it will immediately jump out to save itself. If, on the other hand, one places a frog in room-temperature water and then slowly raises the temperature to boiling, the frog will remain in the water. The point of the story is simply that amidst the sound and fury of everyday life, it is hard for us to stay aware of critical but sometimes subtle changes in our environment. The independent college store has witnessed the emergence of the retail chain contractor, the rising power of publishers and distributors, the growth of the used textbook trade and entry of textbook rentals, and finally the rise of the student guerilla-consumer. Impressively, the independent college store has withstood all of these challenges. That said, it is very likely that a deep analysis of many college stores' financials would reveal declining gross learning content sales and shrinking margins. These stores may—like the heated frog—soon face the need to subsidize (not just replace) revenue from learning content with sales of higher margin goods. And like the heated frog, we imagine that some college stores need to run the numbers out a few years and perhaps, jump out of the warming pot. The likelihood of *status quo ante*—living as we have in the past—is low (p=.25) overall. Some small and isolated private colleges with an overall affluent student body may be able to carry on with little strategic change. The heated frog scenario is moderately likely (p=.7 or .8) and is likely to be widespread.

[152] Nathaniel Popper, "Goldman Sachs and IDG Put $50 Million to Work in a Bitcoin Company," *New York Times DealB%k*, April 30, 2015. Available at: http://www.nytimes.com/2015/04/30/business/dealbook/goldman-and-idg-put-50-million-to-work-in-a-bitcoin-company.html?utm_content=&utm_medium=email&utm_source=Sailthru&_r=1&nr_email_referer=1.

[153] L. Johnson, S. Becker, V. Estrada, and A. Freeman, "NMC Horizon Report: 2015 Higher Education Edition," 2015. Austin: The New Media Consortium. Available at: http://www.nmc.org/publication/nmc-horizon-report-2015-higher-education-edition/.

2. **Commercial courseware triumphs.** As described, the textbook model that has been profitable for so long with academic publishers is likely nearing the end of its lifespan. Textbooks have long been a "cash cow"—enjoying high market share in mature (U.S.) markets. Today, the market for new textbooks is shrinking as enrollments decline and faculty eschew commercial course materials in favor of materials available elsewhere. Moreover, the share of the market enjoyed by commercial publishers is shrinking rapidly due to rentals, used textbooks, download sites, and student non-compliance with required reading assignments. Rejuvenating sales with digital supplements is only partially succeeding and academic publishers are investing heavily in a transition to courseware. Courseware that integrates today's commercial learning content opens the door to 100% adoption for publishers and lower unit prices for students. This said, the move to commercial courseware will meet stiff resistance by regular (career ladder) faculty, but may initially succeed in the large adult and graduate online professional degree niche where much of the education is provided by online and on-ground adjunct faculty. The triumph of courseware in the academic core is unlikely (p=.3), but in substantial niches is moderately likely (p=.6).

3. **The virtual hub becomes central.** One of the defining aspects of the emergent unbundled and privatized learning services marketplace is its fragmentation. This fragmentation is both a weakness and an opportunity. Commercial enterprises including Barnes & Noble, Blackboard, Chegg, Instructure, and others see themselves as the hub of a student-centered universe or the mortar that holds students and their service providers together. Instructure, for example, announced their EduAppCenter platform for sharing and discovering 140+ educational apps "to foster a culture of open access to the resources educators and students need."[154] Barnes & Noble, in this vein, bought Flashnotes in advance of its planned August 2015 spinoff of its education-related business. B&N CEO Max Roberts explained: "One of the key objectives of the planned [spinoff] is to pursue strategic opportunities in the growing educational services markets, and our investment in Flashnotes.com is consistent with that objective."[155] The campus has always served as the physical hub but has not asserted itself in cyberspace. The key campus service centers—libraries, student academic services, and college stores—or their association proxies (ACRL, NACS, etc.) could position themselves to serve this integrative role. Doing so will require significant capital, branding and marketing, and a truly student-centered operating perspective. No one has a brand to leverage into this role, yet. It is likely that many will jump into this fray, but it is not likely that anyone will dominate the hub role within three to five years (p=.4).

4. **A giant comes knocking.** Amazon (and other giants like Google and increasingly Chegg) want to dominate the retail landscape by becoming global same-day retail and distribution giants. The world they imagine is one in which imbedded sensors and ties to information systems continually broadcast customer needs. These needs are regularly addressed through home delivery. Both providers have much of the infrastructure they will need to support this. The Amazon Campus initiative represents both that firm's reversion to its core strengths—books—and its intentions to secure a network of physical trans-shipment points for staging and executing same-day delivery maneuvers. College stores have little to lose in this venture as Amazon or Google have both the market strength to keep publisher prices in line and the infrastructure to fully support digital delivery. The risk for the college store is that if these giants become the shopping hub, their ambition may not stop at books. The likelihood that Amazon or others will come knocking is high (p=.99).

5. **Coming from behind…OER is gaining speed.** The Open Education Resources (OER) name was coined in 2002, but a movement to make learning content freely accessible via open licensing has been around for decades. To date, this movement has been high on passion but low on execution. Even now, only 25% of faculty members admit to being aware of OER. That said, a new generation of OER movers and shakers understands the need for economically sustainable business models while retaining their idealism. They have the attention of some of the world's largest philanthropies and are aware of the likely shift from textbook to courseware. Indeed, this shift presents the OER movement with a relatively level playing field since everyone is a newcomer in the courseware arena. Moreover, OER providers have none of the historical baggage carried by commercial publishers. Still, OER is a dark horse candidate (p=.5).

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154 Press Release, "Instructure Expands Partnerships to Advance Education Ecosystem," June 17, 2014. Instructure partners include: Khan Academy, McGraw-Hill, Twitter, and Vimeo. Available at: http://www.canvaslms.com/news/press-releases/instructure-expands-partnerships-to-advance-education-ecosystem.
155 Chelsea Dulaney, "Barnes & Noble Invests in Study Site Flashnotes.com," in *Wall Street Journal*, March 9, 2015. Available at: http://www.wsj.com/articles/barnes-noble-invests-in-study-material-site-flashnotes-com-1425907689.

Conclusion

Not surprisingly, we conclude that more change is coming to the learning content ecosystem. The scale of these changes is without precedent. We also conclude that the three- to five-year-planning period ahead that we have focused on is best characterized as "the lull before the storm." It is essential that store operators not misinterpret the lull, for a big storm is gathering. The emergence of competitive newcomers to the ecosystem during this period is likely to be high and the merger and acquisition activity is likely to be frenzied. Nearly every major player in the learning content ecosystem is repositioning themselves to become either a student's "university-in-a-pocket," or the institution's unseen content engine (or both). From a giant's perspective, the campus store is either a pesky obstacle or a convenient channel. Either vision, from the independent store's viewpoint, threatens independence. That said, service to students and the institution, and not independence per se, is the college store's central objective.

The next three to five years will determine the long-term direction of the college store. Three core options dominate the planning that needs to take place in this period:

- **Become a minnow and develop those capabilities—largely analytics and customer relationship management—that allow you to dominate the learning content market at your institution.** You'll need to know your students better and get to them faster than the giants who will beat you on price!

- **Manage learning content as a channel for a giant.** Pilot fish congregate around sharks, rays, and sea turtles. They gain protection from predators, while the sharks they travel with gain freedom from parasites. If partnering with Amazon, Google, or another giant can assure: (1) net revenues for the institution; (2) improved affordability of learning content for students; and (3) a positive student experience and one whose halo includes the campus, such a partnership could liberate college store staff and space to provide better service and assure store independence.

- **Become the campus' general merchandise and convenience store.** Look at the writing on the wall regarding the learning content business and retreat to, and fortify, a strong general retail position at your institution. For stores/campuses considering a move to outsource course materials in a hybrid model, the remaining role for the college store would include serving as a focused campus outfitter and convenience retailer.

ACTIONS TO CONSIDER

This white paper is the result of six months of research spanning a varied literature, hundreds of pages of interview transcripts, and three distinct surveys. Its inputs were rich and complex, and our treatment of this rich material has been respectful. What results from the combination of complex inputs and careful analysis is sound research. The audience for this research is a community of business practitioners—including college store professionals, industry business partners, and campus administrators. And while we have tried to distill our findings for a practical reader, we know that in the end, our work sacrifices eases of use at the altar of thoroughness. We use this "chapter" therefore to address full-on the needs of the practitioner and to answer the question: So what should I consider doing? Here we behave more like consultants who are paid to push away as much complexity as possible to focus the client's attention on the urgent and the actionable.

One of the best known frameworks for guiding general strategy is the BCG Matrix (Figure 26).[156] In a nutshell, the BCG framework maps products (learning content in this case) according to the provider organization's market share and market growth.

Figure 26 – BCG Matrix

Products—so mapped—are classified as either stars, cash cows, question marks, or poor dogs. Our conclusion is that the U.S. growth rate for selling commercially published college level learning content— in its current form—is flat or negative. The key factors:

- Flat enrollments in many U.S. colleges and universities;
- Rising costs of producing learning content coupled with inelastic demand;
- Increasing substitution of rentals;
- Growing pricing power of Amazon putting pressure on retail margins;
- Increasing adoption of non-commercial learning content (web, OER) by faculty; and
- Declining amount of reading assigned by faculty or completed by students.

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[156] Developed by the Boston Consulting Group in 1970. See Wikipedia, "Growth-Share Matrix." Available at: http://en.wikipedia.org/wiki/Growth%E2%80%93share_matrix.

We conclude as well that the (average) college store's share of the learning content market is declining in the face of:

- Growing competition from online providers like Amazon, Chegg, and others;
- Growth of e-commerce and mobile commerce;
- Growing number of learning content borrowers or non-compliant students;
- Increasing student knowledge and use of "free" downloading sites, non-U.S. sites, and low-cost foreign editions; and
- Increasing purchase of used current or older editions beyond the institutional perimeter.

These conclusions do not apply to all college stores. Market growth depends on the college or university and many institutions in states like California, Florida, and Texas have growing enrollments, sometimes substantially. And in many cases, imaginative store managers are deploying marketing tactics that are increasing the share of total learning content sales and rental revenue that is going to the college store. The important message here is that—taken as a whole—the U.S. college store's learning content product falls into the "poor dog" part of BCG matrix. The standard consulting advice to business operators with products so situated is to divest or transform.

1. **Know your students and your faculty adopters.** This is not a throwaway action to consider. Nor is this a sidle-up-to-your-students or hug-a-faculty-member recommendation. College stores that wish to remain in the learning content business need to: (1) understand the make-up of their institution's student body; (2) understand how the segments that comprise their student body behave regarding learning materials; and (3) understand if and how faculty adopters hope to use the course materials you supply. The NACS Student Watch™ data is a powerful input to such a strategy. That data source alone reveals, for example:

   - Students who receive financial aid, grants, or scholarships that cover less than half the cost of their course materials are more likely than others to borrow their course materials or download them from legal or illegal sharing sites.

   - When instructors incorporate access codes into their courses, 93% of those students who acquired their access codes use them. When instructors do not incorporate access codes into the course or recommend their use, only 40% of the students use their acquired access codes.

   - Two-year college students prefer to purchase course materials, while four-year students and non-freshman students are much more likely to seek out "cheaper" alternatives to purchasing their course materials, such as borrowing, downloading, and renting.

   - In fall 2014, 23% of all students enrolled in at least one online course. Importantly, faculty who teach fully online courses are almost twice as likely (43%) as non-online instructors (23%) to assign e-textbooks.[157]

These findings are simply small examples of how the consumer preferences and behaviors vary widely by student segment and how faculty choices and actions interact with student decisions and behaviors. College stores competing with big data giants like Amazon will need to use data from student surveys, from social sources like Twitter, and from campus sources. They will need to employ data analytics to define student segments and to personalize marketing messages, beacons, and programs that target specific student segments. It may be that, due to the high cost of developing such analytical capabilities at each independent store, an expanded role in marketing analytics might be played by NACS.

Understanding that your customers may depend on financial aid that does not fully cover their course materials costs is an actionable insight. Most competitors for the independent stores' learning content business cannot develop a rich understanding of the institution's student body. Making effective use of student and faculty data will no doubt pose privacy challenges, but represents a powerful source of sustainable competitive advantage for both the college store and the college or university it serves.

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[157] Data and findings are from NACS' faculty survey and OnCampus Research® Student Watch™ fielded in fall 2014.

DO THIS . . . .

Take an assessment of your current survey methods and sources of data on your student consumers.
Make a list of what you know or can easily identify from your current activities and data sources. Then determine the top two to three sources of information you need to gain access to (via campus systems access, new survey activity, etc.) to best and most efficiently complete your view of the student consumer on your campus. Create an action plan and move forward!

2. **Help formulate institutional policy. Engage in and align with institutional strategies.** Issues like course materials affordability, adoption of commercial digital learning content, and the shift from textbooks to courseware are strategic institutional concerns. College store leaders have skills and knowledge that can influence institutional policy and strategy beneficially.

   - Does the college store know the institution's intentions regarding courseware adoption and use?
   - How do the college store's strategies and plans align with the institution's broader teaching and learning mission and goals?
   - Is the college store involved in discussions about how well commercial suppliers' learning-related products and services align with the institution's teaching objectives?
   - Who, at the institution, is tracking and evaluating the spate of technology-based services being promoted to students and faculty?
   - Faculty committees can evaluate pedagogy, execution, and learning outcomes; and IT can assess usability, accessibility, and demands on the IT infrastructure and for support. Who can supply due diligence on the providers or advise on license terms and costs?
   - Does the institution reward experimentation with courseware, evaluate courseware's performance, promote successes, and provide training to speed the effective diffusion of courseware through the curriculum?

These and many other questions need to be raised and addressed if the transition to digital learning content and courseware is to proceed smoothly and rapidly. Failure to proceed smoothly to a digital future is likely to fragment the student experience as decisions to adopt learning content vary from course to course and as untested courseware and digital academic services are adopted and discarded. Unattended, the gap

> Campus store leaders need to apply extra effort to building new partnerships and a new awareness of their competencies among the faculty, library leaders, IT organization, and others.

between courseware's capabilities and the capacity of faculty members to use them will frustrate students and lead either to massive underutilization of the institution's investments or to fueling students' do-it-yourself or crowdsourcing impulses. Obviously these areas of policy and practice are delicate. They reside close to the heart of the academy and are not typically thought of as the province of campus store professionals. Moreover, survey data suggests that faculty members today do not view store professionals as partners and advisers, but more as valued shopkeepers. This means that campus store leaders need to apply extra effort to building new partnerships and a new awareness of their competencies among the faculty, library leaders, IT organization, and others. Failure to do so not only short changes students and the institution, but adds to the risk that solutions adopted—like institution-wide course materials licenses—will cut the college store out of the equation.

DO THIS . . . .

The primary message here is that every element of the learning content ecosystem is in flux, and every college store and its institution need a learning content strategy. This strategy by definition must be multi-dimensional and should intersect with academic policy, technology, student privacy, pedagogy, instructional costs, course materials accessibility, and more. Getting the institution's arms around this topic needs to be both a team effort and a priority. The college store has the needed knowledge, skills, and relationships, and must be at the table.

3. **If Amazon (or another giant) comes-a-calling, consider taking that call—cautiously!** Like it or not, Amazon is the elephant in the room. Ignoring an elephant in one's room is done at one's peril! While the contractual terms of the first Amazon Campus arrangements are not public, the financial terms which were surfaced by the *Wall Street Journal* suggest that it makes good sense to take that call. Bear in mind that Amazon is potentially looking for campus partners that will: (a) provide them access to possible lifetime Prime members; (b) provide a geographic launchpad for same-day/next-day order fulfillment and delivery; and (c) add to an academic readership base that enhances the company's negotiating leverage with publishers and wholesalers. The key questions for the college store and its host institution to answer are:

    • How far does one allow the elephant's trunk into the tent?

    • Does the institution cede communications with faculty over learning content adoption to Amazon or seek to control that channel?

    • How much information about a student's course enrollments is appropriate or wise to share?

    • How will Amazon safeguard student information?

    • What are the boundaries, if any, imposed on Amazon cross-selling; that is, does Amazon's overall brand strength and product portfolio when combined with a student's enrollment data create the means to dis-intermediate the college store across all merchandise?

DO THIS . . . .

If you have not already, consider and develop a well thought out and well written/crafted response to the potential inquiry from your campus administrators regarding a potential retail/fulfillment relationship or other business agreement with Amazon.

4. **Delivery anyone? Provide concierge services from your college store.** For many students, the decision of where to acquire learning content is a function of convenience. None of the passionate literature about textbook selection and price looks at a student's opportunity costs rather than pure accounting costs. Nearly one student in three is working 20 hours per week or more in addition to their school work. And as always, extra-curricular and family activities also crowd busy schedules. Students who are living in a world that is driving toward same-day delivery to the doorstep will prefer and ultimately demand service models that save them time. College stores might consider providing store-to-door concierge-type services.

Central to the execution of a concierge strategy is full, tight, and imaginative integration with the college or university's information systems. The college store is in the amazing position of understanding and matching up the student profile (undergraduate/postgraduate, full-time/part-time, residential/commuter, on-ground/online, etc.), student registration information, information from POS, and information about the learning content market alternatives. Such information could allow the crafting of a personalized learning content "plan" that could be reviewed with each student. The planning encounter could be online or face-to-face, but is a

positive point of outreach not necessarily tied to a transaction. Creating an intentional and personalized stream of helpful outreaches is what the best-known firms do to turn a shopping experience into a relationship. A similar concierge approach could be fashioned and deployed in the service of faculty members as well. In addition to focusing on creating a personal relationship, this strategy depends on the college store becoming a student's learning content cost minimizer. The store can and should become the student's tour guide through the learning content marketplace.

DO THIS . . . .

Evaluate and create strategies to enhance the personal relationship your store has with each and every

customer—through in-store experiences, use of online and mobile, analysis and application of student/

customer data, and provision of support and services related to the complex course materials universe.

5. **Consider becoming the student outfitter.** The college store has evolved mightily in 20 years, and many institutions might not be recognized by alumni returning for their 40th class reunion. Already the store provides learning content in digital and print forms. College stores sell course materials; rent textbooks; facilitate exchanges of course materials, computers, and electronics; and provide many services above and beyond delivering a faculty member's adopted learning content on time. Their array of clothing, logo wear, cosmetics, groceries, gift cards, computers and electronics, school supplies, and gifts and souvenirs they provide can be dizzying. Some college stores are very nearly special-purpose small department stores. Yet by evolving like department stores, some college stores may be missing the chance to really become the student's outfitter. Study abroad? Visit the college store to see what it is you'll need in Turkey. Field archeology? Yes, you'll find the tools you need through the college store. Whether or not most college stores can step up to become student-focused outfitters, most students are not yet likely to think of the college store this way. And that is particularly true where it comes to outfitting students for cyberspace. Beyond the sale of gear and basic productivity software, the college store is not typically equipped to guide a student through the thicket of digital consumer choices that face them.

DO THIS . . . .

Create a list of new ways your store can be the ultimate student outfitter for your campus—specific to your

institution's programs and other characteristics. Evaluate the potential new offerings and select at least two

to implement in the coming 12 months.

6. **Become an indispensable resource on the migration to courseware.** Courseware is coming. It is a big, new institutional expense category; a new academic productivity, quality, and student success vehicle; and a new source of risk. Partner with the CIO, librarian, and provost to pave a productive path for courseware. Become a knowledgeable resource on the economics of courseware. If, for example, courseware supplements rather than replaces textbooks, it will be a cost add-on and students will resist it. If students won't buy it, courseware adoption would require a significant new institutional capital investment and this is not likely. Instead, commercial publishers will move to integrate their learning content "snippets" into courseware, eliminating the need for students to buy textbooks and other course materials. Under this model, the college or university will be encouraged to implement digital learning content fees like technology fees. Such an approach may be reasonable, as long as total content fees are equal to or lower than the average student cost of learning content under the textbook model.

If and as this new model takes root, large commercial publishers will want to enter into institution-wide agreements for access to courseware. This will become a huge opportunity and an even bigger challenge for colleges and universities. The provost and deans will need to nudge an appreciable portion of their faculty along or the volume-based economics of the new model will degrade. The CIO will need to be sure that the courseware inter-operates—where necessary—with the institution's learning management system, learning

analytics, student evaluation, lecture capture, and a myriad of other systems. They will need to confirm that courseware is accessible to students of all abilities. The university library will be appropriately concerned about the courseware license term and how long students will be able to enjoy the use of courseware and content they have acquired via the content fee. The librarians will also likely inform and advocate around the availability of OER courseware alternatives or supplements to commercial courseware. And someone will need to understand the commercial market, prevailing contract terms and conditions, and other business variables that will materially affect the cost and ultimate success of campus-wide courseware licensing efforts. College store professionals seem ideally suited to represent the institution's business interests in this important arena.

DO THIS ·

Evaluate your current relationship with the campus CIO, librarian, and provost. If you don't have one—initiate it. Set a target date to begin paving a productive path for courseware on your campus in partnership with these and other relevant stakeholders for your campus. Serve as your campus' knowledgeable resource on the economics of courseware (and more) in these discussions.

7. **Become the institution's affordable learning content solutions broker.** Students are to a great extent bereft of financial advice of any kind throughout their college or university experience. When one combines inexperience and lack of financial advice, it becomes easy to understand why so many U.S. students borrow to excess under terms that they do not likely understand and have amassed a cumulative $1.3 trillion in debt. Student debt in the U.S. now exceeds credit card debt. Commercial learning content is not paid for up front like tuition, fees, housing, or dining hall expense. And even while textbook costs are estimated in college catalogs and itemized on the FAFSA, they are treated by all—except those on federal financial aid—as a discretionary expense. They compete in students' minds with food, health insurance, gasoline, and other necessities. Without spending guidance from knowledgeable experts, students typically figure their spending budgets out alone or seek the guidance of other students. This often leads to imperfect outcomes, including an increasing reliance on download sites, extensive borrowing of course materials, or outright avoidance of required learning content.

A time will come when the college store leadership (or administrative overseer) will need to decide whether or not the primary mission is: (a) to help students craft and execute optimal learning content sourcing plans, or (b) to maximize learning content revenues and earnings. Of course this decision is tied deeply to the institution's signals and incentives to the college store. We suspect that the most durable and sustainable path for the college store is to eschew profits on learning content in favor of becoming a real partner to students in their quest for financial responsibility. Moreover, we suspect that there are pathways here to do well by doing good; that is, to translate good acts as a responsible "content coach" into a long-term and remunerative relationship with students. Even if such an approach does not pay a financial dividend, the transition to content coach makes the college store part of the institution's student success team and therefore of heightened value.

DO THIS ·

Assess the climate on your campus for the college store to transition to "content coach" in the long term—at the expense of revenue, if necessary. Some stores are already making this shift, though replacing revenue through other means. Some stores have yet to start this transition and may not be able to so easily replace lost revenue from learning content sales. The greater extent to which either of the latter two situations apply to your store, the more important it is for you to start planning and taking strategic action in this area.

8. **Hitch the college store's wagon to student success.** Student success is not likely to be a passing fad in higher education because the shift from an access culture to a success culture is being driven from outside the academy. Aligning action within "loosely coupled" institutions like colleges and universities is an enormous challenge and is slowing U.S. higher education's progress toward greater student outcomes. Even as each stove-piped provider of instruction and services to students strives to improve, the absence of coordination betrays our institutions' core fragmentation from a student perspective. College store professionals have a unique and important vantage and perspective on essential parts of the student experience. The college or university librarian has another, as does the dean of students, the executive in charge of student academic services, residential life, and so forth.

In the college and university library world, the creation of the academic commons in the past decade has transformed campus libraries from largely empty warehouses of little-used volumes to the campus' vibrant go-to place for quiet study, active group work, instructional services, faculty consultations, and more. Higher education is likely ready for a next evolutionary step—the student success center. Such a center might build on the success of the academic commons to provide a one-stop physical and virtual environment for students. Such a center would bring together counseling, advisement, coaching (academic, life, and financial), along with financial aid, and learning content services. Here, the college store leaders could realize a vision of the college store as a pillar of the institution's student success commitment.

DO THIS . . . .

Investigate the state of student success and learning support services on your campus. Determine if there is a current or future role for the college store related to these services (as they currently are or as they could be re-envisioned as described in this paper).

9. **Reform is not a period of defeat.** An orderly retreat can be strategic and is not a defeat. In a nutshell, college store leaders should be looking back five years at revenues, margins, and earnings from learning content and then projecting them forward five years. It is essential to remember that service to students and faculty—and not independence—is the primary mission. Reforming the college store's offerings, including paving an intelligent path away from direct sales of learning content, needs to always remain one of the campus store's most precious options.

DO THIS . . . .

Conduct the analysis prescribed above of five-year performance figures and five-year projections. Use this information to inform your decisions about store priorities and future initiatives as well as to discuss the needs and direction of your store with the campus administrator to whom you report. Understanding where the store stands and is trending in context of the changing/evolving ecosystem mapped in this paper is a powerful tool for you and the campus. Using such insight in determining how to best serve faculty and students and to support the learning and academic success goals of the institution will be critical to store success in the years to come.

APPENDIX

CRITICAL QUESTIONS TO ASK WHEN EXPLORING THE NEW LEARNING CONTENT ECOSYSTEM

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?*

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?*

Critical Questions: Learning Content Manufacturing—Publishing

1. *What percent of your campus faculty are experimenting or using different forms of learning content (YouTube videos, online articles, etc.) or teaching styles (e.g., flipped classroom, Socratic Method, learning/group activities)? Are there members of the academic community on campus you could engage with to learn more?*

2. *Are OER materials being used or discussed on your campus? By whom? In what ways? What is your level of knowledge about, and comfort with, discussing OERs as well as the creators and repositories of these materials?*

3. *To what extent are custom print or digital course materials in use on your campus? Is this a potential growth area?*

4. *What is the status of your relationships with the industry's learning content publishers? Of their business models and future corporate direction? Are there others on your campus who are having conversations with these content providers—with or without your involvement?*

5. Is the store seen as a resource (or the expert) on copyright and copyright clearance for learning content on campus? If not, is there a role for the store to play in this area?

6. Does your campus have a learning/course content strategy in development or in place? Are store leaders involved in this effort? If no to either, how can the store initiate or get involved in the campus' effort?

7. Are you communicating to the relevant campus stakeholders about the changes happening in learning content creation and publishing—and the potential implications for store sales, products, and services?

Critical Questions: Learning Content Distribution, Wholesaling, and Aggregation

1. How would you characterize the relationships between your store and industry distributors? Who on your staff manages those relationships and monitors changes in this space?

2. What conversations are happening on campus related to content licensing or other models that might 1) exclude the store or other players in the distribution chain and/or 2) benefit from expertise that store staff can offer?

3. How is your store strengthening its relationship with students around learning content, course materials, and digital learning products to mitigate the impact of student self-sourcing? Is your store serving as a course materials/learning consultant for students? For faculty?

4. Which Potential Substitutes and/or Technologies and Innovations to Watch present potential opportunities for your store? How will you evaluate and prioritize each? How do you get started?

5. Is your store an active participant of the learning content and learning analytics discussions happening on your campus? If not, why? And how do you become involved?

6. Who are the key players on your campus with whom you need to establish and maintain relationships?

Critical Questions: Learning Content Retailing

1. What is the current mission of your campus store? How does the scope of merchandise and services you offer meet the campus' expectations?

2. What conversations are happening on campus regarding a course content strategy, course content licensing, open educational resources (OERs), and/or digital/adaptive course materials? Is the store engaged in these discussions?

3. What conversations are happening on campus regarding engagement with students via mobile/handheld devices, mobile transaction capabilities and applications, and/or consumer data collection and analysis? Is the store engaged in these discussions?

4. To what extent does the store act as a "brand agent" of the institution? Are there expectations and/or strategies in place guiding the in-store experience for customers? The online/mobile experience?

5. Who in your store tracks consumer trends, trends in retail technologies, your competitors, etc.? How so, and how and with whom do they share what they learn?

6. Does the store have clear and purposeful strategies in place for supporting faculty and students in their teaching and learning roles?

7. To what extent are store systems integrated with campus systems? What are the pain points or needed integrations? What consumer insights are you mining?

8. What strategic relationships does the store maintain with campus stakeholders? Which are needed?

Critical Questions: Learning Content Consumers—Faculty and Students

1. What is the faculty make-up on your campus: tenure-track versus adjunct/part-time?

2. Where are the course material adoption decisions being made on your campus? Are there any trends that can be identified to suggest a shift in faculty authority in these decisions?

3. To what extent are digital, adaptive courseware products and platforms being used on your campus? Is there a trend of increased use?

4. To what extent are OERs being used on your campus? Is there evidence of a trend?

5. Are there discussions occurring on campus about content licensing/course fee models, course licensing, and/or use of MOOCs? Is the college store involved in (or leading) these discussions?

6. What is the level of course materials price sensitivity on your campus? Who are the vocal/active stakeholders? How are their concerns manifesting, and how is the campus store addressing their concerns?

7. What market share of adoptions does the store have? What percent of students are purchasing and using the required course materials and supplements (indicated by your sell-through, feedback from students, comments during Buyback, and other measures)?

8. What strategies and initiatives does the store have underway or planned to maximize course materials access and affordability for students?

9. In what ways is the campus store partnering with/serving faculty and students to maximize the ROI of learning content and course materials?

Critical Questions: Learning and Success Services

1. What is the state of learning and success services on your campus? Does the variety and supply meet the needs of the student body? Do students or staff talk of too few or missing services?

2. What learning and success services are your students currently using? How well are learning and study aid products selling through your store?

3. Are there signs of student self-sourcing for these products and services (such as student-sponsored tutoring or study programs, or questions about/use of online support services)?

4. To what extent are students seeking product support and help with maximizing the benefit of homework and online learning courseware assigned or recommended for their classes?

5. What role can your store play in aggregating, curating, and/or providing student learning services for your campus? Are there ways the store can partner with existing campus services, publishers, or online providers to be a physical location, broker, or other partner?