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High-Tech or High-Touch? Online Learning and Independent Higher Education

CIC Project on the
Future of Independent Higher Education

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About the Project on the Future of Independent Higher Education

CIC's Project on the Future of Independent Higher Education is a multi-year initiative to identify and examine the forces that are most likely to affect the future of independent colleges and universities and to help member institutions prepare for both new challenges and new opportunities. With the guidance of a steering committee of college and university presidents (see page 21), the project considers potentially disruptive changes to American society and education and explores fresh approaches to higher education and new college business models. The project also examines the distinctive characteristics and missions of independent colleges that have enabled them to offer a high-quality education for so many years. The project is supported by the Lumina Foundation for Education and the TIAA-CREF Institute.

Other Reports in This Series

This Research Brief is the fifth in a series of short papers on innovations in pedagogy and curriculum that may enhance student learning at independent colleges and universities. Each brief includes a review of recent literature, examples of how the innovation has been adopted by CIC members, discussion questions for further exploration, and recommendations for additional reading. The principal author is Philip M. Katz, CIC's director of projects.

Research Brief 1: *Competency-Based Education* (April 2015)
Research Brief 2: *Interdisciplinary Undergraduate Education* (May 2015)
Research Brief 3: *Career Preparation and the Liberal Arts* (July 2015)
Research Brief 4: *Living-Learning Communities and Independent Higher Education* (October 2015)

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High-Tech or High-Touch? Online Learning and Independent Higher Education

KEY POINTS:

- Independent colleges and universities are cautious adopters of online education for undergraduate students. These institutions seek to balance a tradition of student-focused pedagogy in face-to-face settings and faculty wariness of online courses against the promise of lower instructional costs, changing student expectations, and the potential for better student learning outcomes.
- Research shows that online learning can be at least as effective as traditional classroom instruction, but many faculty members remain skeptical about the quality of online courses. The gap between faculty members and academic leaders with regard to perceived quality represents a significant barrier to broader adoption of online education.
- Although online education may have the potential to reduce instructional costs at the undergraduate level, the evidence that it actually does remains inconclusive. The development of online courses often requires a greater investment of time and resources than the development of traditional courses. For smaller independent institutions committed to relatively low student-faculty ratios, cost savings from online education are more likely to materialize after courses are offered multiple times or when institutions share online courses.
- Barriers to the adoption of online education at independent colleges and universities include uncertain cost models, concerns about decreasing the ranks of full-time faculty members and outsourcing instruction, and the high cost of supporting and maintaining a sophisticated technology infrastructure and instructional platforms.

Introduction

Online learning is an amorphous phenomenon, comprising technologies, pedagogies, and institutional structures that are both well established and rapidly emerging. Online learning has been described as both benign and threatening—either a simple application of new tools to evolving yet familiar methods of teaching and learning or a disruptive force with the potential to level the landscape of higher education so thoroughly that just a handful of traditional colleges and universities around the world will survive the 21st century (Leckart 2012). For independent colleges and universities that focus on undergraduate education, the potential impact of online learning falls between these two extremes, and probably closer to the benign end of the spectrum, especially for institutions that are able "to adapt and take risks…and rethink the learning environment and utilize digital tools to enhance the place-based education [they] offer" (Long 2015; also see Scholz 2013, Kim 2015).

William G. Bowen, former president of the Andrew W. Mellon Foundation and a leading optimist about the future of higher education in the digital age, stipulates that any "attempt to estimate the current extent of online learning, or to enumerate its near-limitless forms, would be foolhardy" (Bowen 2013a, 2). Instead, this brief will provide a glossary of key concepts and a brief overview of the current state of online learning before turning to three questions: Is online education high-quality education? Can online education help traditional institutions reduce instructional costs without sacrificing educational quality? And what are the barriers to incorporating online education into the undergraduate curriculum at independent colleges and universities?

Definitions

"Online education" encompasses many ways that digital technology can be applied to teaching and learning, ranging from the integration of web-based content, research activities, and learning management software into courses that still rely primarily on face-to-face instruction in a traditional classroom setting, to massive courses enrolling thousands of students from around the world who have little contact with a faculty member, to web-based tutorials that provide on-demand learning experiences and evaluation without an instructor at all. Each application raises somewhat different issues of pedagogy, management, and cost per student, not all of which can be addressed in this report.

This research brief is concerned primarily with credit-bearing undergraduate courses that are entirely or partly delivered online. The umbrella terms "online education" and "online learning" will be used interchangeably in this brief, and other terms will be used when more specificity is required.

This is a glossary* of key terms in the current national discussion about online education:

Adaptive learning: Adaptive learning systems modify the level and sequencing of instructional objects in response to student performance on tasks and quizzes, providing a more personalized learning experience.

Digital humanities: Includes research practices and methods, pedagogies, and presentation methods that incorporate digital tools into the humanities disciplines.

Flipped courses: Courses in which students are expected to acquire subject content outside of class meetings while in-class time is spent on deepening understanding through discussions, problem solving, and interactive engagement with the subject content. If the subject content is delivered online and face-to-face time in the classroom is reduced, these courses can be called hybrid courses.

Hybrid courses: Courses in which some of the instruction is delivered online, such as lectures on the subject content, and some instruction is

**Adapted from a glossary prepared by the staff of Ithaka S+R for CIC's Consortium for Online Humanities Instruction.*

provided in class, usually focused on more interactive activities and discussions.

Learning analytics: Learning analytics "is the measurement, collection, analysis, and reporting of data about learners and their contexts, for purposes of understanding and optimizing learning and the environments in which it occurs" (TEKRI n.d.). One area of focus is using data generated by online learning platforms to understand better how students learn and to develop more effective pedagogical methods based on that enhanced understanding.

Massive open online course (MOOC): An online course that a) has start and end dates; b) is free to students, at least for those who are not seeking a certification, and open to anyone; and c) uses social media and automated grading technologies to enroll large numbers of students. Permutations include synchronous massive online course (SMOC) and distributed open collaborative course (DOCC).

Online learning: Instruction that is delivered over the internet instead of in a traditional classroom. It includes delivery of course content—for example, through online video lectures or asynchronous discussion boards—as well as more interactive technologies focused on problem solving or skills practice. Basic uses of a learning management system such as posting a course syllabus and assignments for a classroom-based course are not typically considered "online learning."

Open educational resources (OER): This term is frequently used to describe online educational content or tools that are free to end-users (who may be students) and use open copyright licenses that allow for reuse and repurposing by other instructors.

Personalized learning: Personalized learning involves creating an online (or offline) environment suited to the needs and preferences of an individual; for example, this could mean tailoring topics that illustrate common concepts to different student interests. See *adaptive learning*.

Synchronous vs. asynchronous: Synchronous components of a course are those in which all students in a course participate together at a specific time. Asynchronous components are available to students at any time or within a given window of time.

Snapshot of the Online Education Landscape

Online education continues to receive a tremendous amount of attention from the media, researchers and education reformers, public and private funders, and the academy. New statistics, survey results, technologies, and predictions about the future of online education appear almost weekly. What follows is a selective snapshot of online teaching and learning in American higher education at the start of 2016, highlighting where possible the differences between the independent sector of higher education and other kinds of institutions:

Nearly every college and university incorporates digital technology into undergraduate instruction to some extent, from the ubiquitous use of learning management systems and online instructional resources to wholly online degree programs. Many institutions offer online undergraduate courses.

- According to a 2013 survey conducted by The Learning House, Inc. in cooperation with CIC, nine out of ten CIC member institutions already offered at least one online or hybrid course. The majority of CIC member institutions relied on a learning management system to deliver digital content to some or all of their face-to-face courses. Finally, about half of CIC member institutions reported at least one fully online degree program at the undergraduate or graduate level; by comparison, more than 80 percent of public institutions offered at least

one fully online program that year (Clinefelter and Magda 2013).

- The survey results collected by Learning House, while rich in detail, may overstate the prevalence of online education in small independent colleges because of self-selection bias among the survey participants. The most recent data compiled by the U.S. Department of Education, which rely on a narrow definition of distance courses for credit, suggest a smaller but still impressive number of institutions engaged in online education, with 71 percent of all institutions and 65 percent of private baccalaureate institutions having some online course offerings in 2013. The smallest institutions, with enrollments of fewer than 1,000 students, were the least likely to offer online courses at just 47.5 percent (Allen and Seaman 2015, 9–11).
- About one-third of all faculty members have taught an online course for credit at some point in their careers and 40 percent have taught a hybrid course (Straumsheim, Jaschik, and Lederman 2015, 24).

Undergraduate enrollment in online courses is large and increasing.

- At least 5.25 million and perhaps as many as 7.13 million students take online courses from American colleges and universities each year. The different estimates stem from different definitions employed by the federal government and the industry-standard Babson Survey, which has been tracking online enrollments for more than a decade (Allen and Seaman 2015). The lack of a standard definition itself reflects the rapid growth and diversity of online education.
- The most recent federal data show that 32 percent of all degree-seeking undergraduate students take at least one online course for credit each year, and 6.5 percent are enrolled in fully online degree programs. At private four-year institutions, including both research universities and teaching-focused colleges, just 21.3 percent of students take at least one online course and 4.3 percent are enrolled in online degree programs (Snyder and Dillow 2015, Table 311.22).
- The number of students enrolled in online courses has risen steadily since 2003, but the *rate* of increase has slowed since 2012 (Allen and Seaman 2015, 12).

As a sector, independent colleges and universities are somewhat less likely than other kinds of higher education institutions to embrace online education.

- Independent institutions are less likely to offer online education than their public counterparts. They also tend to be later entrants into "a competitive marketplace where the for-profit and large universities dominate" (Hoey et al. 2014; also see Bichsel 2013).
- While 71 percent of chief academic officers (CAOs) across all sectors say that online learning is "critical" to the long-term success of their institutions, only 63.5 percent of CAOs from private nonprofit institutions concur. In 2014, 40.9 percent of private nonprofit institutions included the expansion of online learning as part of their formal strategic plans, slightly fewer than the 42.4 percent of public institutions that did so (Allen and Seaman 2015, 15).
- Presidents of independent colleges are much less likely than their public institution counterparts to view online offerings as a tool for boosting revenues, by a margin of 48 percent to 69 percent (Selingo 2015, Figure 5).

Students expect to have a digital component to their undergraduate education.

- Many observers have noted the changing patterns in digital consumption by today's college students, who have lived all or most

of their lives in a world saturated by digital content, including the content they contribute to social media. Today's students also are increasingly likely to rely on omnipresent smart phones and portable tablets or laptop computers than desktop computers. This fact has important implications for both pedagogy and campus infrastructure, as residential students now bring as many as seven internet-connected devices to campus for which they expect ubiquitous high-speed access which can severely strain the network bandwidth available for teaching (Smith 2015).

- "Even in the most traditional [private] colleges, 40–50 percent of students want more technology incorporated into their education, and 62 percent say they learn best in classes with some online components" (Oblinger and Grajek 2013, 2).
- Nonetheless, according to the 2014 Freshman Survey conducted by UCLA's Cooperative Institutional Research Program, only 6.2 percent of first-year students at independent baccalaureate institutions say there is a "very good chance" they will take a fully online course as an undergraduate (Eagan et al. 2014, 45).
- Nontraditional students are more likely to enroll in online courses and programs than traditional undergraduate students (NCES 2015, Table 13). Traditional undergraduates are increasingly drawn to online higher education as a potential way to save money—which may mean a stark choice between an independent college and a public or for-profit provider of online education, or perhaps a combination of course credits from different types of educational institutions (Quillen 2015, Clinefelter and Aslanian 2015).

Online education is more common in some subject areas, especially business, other professional fields, and STEM disciplines, than others.

- The top three subject areas for MOOCs in 2015 by number of course offerings were business and management (17 percent), computer science and programming (17 percent), and the sciences (11 percent). Other representative subjects included the social sciences (just under 11 percent), education (9 percent), humanities (9 percent, down sharply from 17 percent in 2014), health and medicine (8 percent), and engineering (6 percent). For many years, the most popular MOOCs were introductory courses in computer science and statistics. Experts continue to "debate whether MOOCs can be as useful for teaching humanities and non-technical subjects as it is for computer science and math" (Shah 2015, Shah 2014; also see Wexler 2015).
- The survey of CIC institutions conducted by Learning House in 2013 found that the most common fields of study for undergraduate students enrolled in online degree programs (not courses) offered by these institutions were business, health-related professions, psychology/counseling, and criminal justice/paralegal studies (Clinefelter and Magda 2013, 22). In 2015, the top five majors for undergraduate students enrolled in online degree programs across all sectors of higher education were business administration, nursing, computer science and engineering, information technology, and engineering (Clinefelter and Aslanian 2015, 10).
- There are no reliable statistics for the distribution of flipped, hybrid, and online courses offered by discipline. In part, this is because many institutions do not distinguish among online, hybrid, and traditional courses for purposes of registration and transcripts (Clinefelter and Magda 2013, 11). A recent survey on flipped classrooms conducted by *Faculty Focus*, however, received

a disproportionate number of responses from college faculty members in the fields of health care, education, business and related disciplines, and the biological and biomedical sciences (Faculty Focus 2015, 14–15). This suggests a certain consistency in subject offerings across most modes of online instruction.

Finally, a note about MOOCs. Just a few years ago, MOOCs dominated the discussion about digital teaching and learning in higher education with a promise of expanded access to higher education at little or no cost to students. Coursera, Udacity, edX, 2U, and other MOOC providers aggressively sought students and partners in higher education. The *New York Times* declared 2012 "The Year of the MOOC," but the hype soon began to ebb, even while the number of individuals enrolled in MOOCs continued to increase (Wexler 2015). Relatively few independent baccalaureate institutions pursued this path to online education, and the most recent Babson Survey reports that fewer than 14 percent of *all* higher education institutions have or plan to introduce MOOCs into their curricula (Green 2015b, 10; Scholz 2013; Allen and Seaman 2015).

Student Outcomes

One of the oldest and most important questions about online education is whether online education is or can be high-quality education. Do online students learn as much or as well as they learn in traditional classroom settings? Do some students learn better using some modes of instruction than other students? Do some disciplines yield better results in online, hybrid, or face-to-face modes?

The general question was framed in the late 1990s as a debate about the "no significant difference phenomenon," with a series of research studies over the subsequent decade that seemed to demonstrate that similar courses taught in the classroom and via distance learning led to comparable student learning outcomes. Many researchers, however, were dissatisfied with the methodologies used to support this conclusion (Nguyen 2015, Wu 2015). Then, in 2009, the U.S. Department of Education released an especially rigorous meta-analysis of existing research prepared by Barbara Means and a team of experts at SRI International. This study concluded that "students taking fully online courses performed marginally better than their counterparts in face-to-face sections" while students in hybrid sections performed best of all (Wu 2015, 4). The Means report was praised by researchers for its methodological rigor but also criticized for drawing upon too many courses in the fields of medicine and health care and a narrow range of institutional types (Lack 2013, 4–6). The most recent review of the extant research on student outcomes, conducted by an international team of leading scholars and published by the Gates Foundation in 2015, judiciously concludes that "distance [online] education, when properly planned, designed, and supported by the appropriate mix of technology and pedagogy, is equivalent to, or in certain scenarios more effective than, traditional face-to-face classroom instruction" (Siemens, Gašević, and Dawson 2015, 11).

Education researchers know that "the evidence is, by no means, conclusive" (Nguyen 2015, 316). The evidence of equivalent outcomes is strongest for studies that measure student mastery of content knowledge and discrete skills. For other outcomes, such as student engagement and building a sense of community among students, the evidence clearly suggests that online courses (especially courses that rely on asynchronous discussions) are *not* as effective as face-to-face courses (deNoyelles, Zydney, and Chen 2014). Measuring higher-level learning outcomes, such as abstract reasoning skills or the social and moral development of students, is especially complicated, and the evidence for the comparative effectiveness of online learning is much less compelling. More research is needed, including evaluations of upper-level humanities and social science courses that are not well represented in the literature (Wu 2015, 16; Lack 2013).

An increasing majority of CAOs across all sectors—74.1 percent in 2014, up from 57.2 percent in 2003—are convinced by the evidence that student learning outcomes from online education are at least as good as the outcomes achieved in traditional classrooms (Allen and Seaman 2015). Faculty members are far less certain. A 2015 survey conducted by *Inside Higher Ed* found that just 17 percent of all faculty members across all sectors agree or strongly agree with the statement that "for-credit online courses can achieve student learning outcomes that are at least equivalent to those of in-person courses [at any institution]" (Straumsheim, Jaschik, and Lederman 2015, 12). Unsurprisingly, faculty members who have actually taught online are more positive about the efficacy of online learning, with 28 percent agreeing that online courses can achieve equivalent student outcomes "at any institution" and 56 percent agreeing that student outcomes are equivalent "in the classes I teach" (Straumsheim, Jaschik, and Lederman 2015, 13–14). The skeptical views of faculty members and the gap in perceptions of quality between administrators and faculty members represent a significant barrier to the adoption or expansion of online learning, especially at smaller institutions (Banerjee 2011).

Assessing Costs

The second most important question about online education is, "What does it cost?" This question has at least three corollaries:

1) Can online education *make* money, and if so, do nonprofit colleges and universities enjoy the same market opportunities as for-profit educational providers?
2) Can online education *save* money or otherwise conserve limited resources?
3) Is it worth it? In slightly different terms, can traditional colleges and universities afford *not* to offer online education?

Answers to these questions are hindered by the inability of many institutions to establish the per-student and total costs of online learning. Indeed, one survey of chief financial officers found that nearly half of colleges with online programs could not tell whether the programs were generating net revenue or losing money; another 45 percent were considered profitable (Green and Wagner 2011).

Although more than 90 percent of CIC institutions use a centralized budget model to manage their online or hybrid offerings—that is, with all revenue returning to the central administration and all costs allocated through a regular budget process—this model does not guarantee that all costs will be accounted for (Clinefelter and Magda 2013, 19). Research shows that it typically takes more faculty time and institutional resources to develop and then teach an online course for the first time than a comparable face-to-face course, an additional cost that may not be captured in the budgeting process (Freeman 2015; Bowen 2013b, 51). Other "hidden" costs include technology upgrades, software licensing, IT support staff, and faculty training (Amirault 2012). Thus, Kenneth C. Green, founding director of the Campus Computing Project, which has tracked campus trends in education technology since 1990, argues for "a new candor about the true costs of developing online programs, which includes full cost accounting for the people and the institutional resources required to support online programs and online students" (Green 2015a, 51).

Some leaders of nonprofit colleges and universities continue to see online education as a potential "cash cow," with optimistic predictions of enrollments and revenues (Amirault 2012, Bichsel 2013). Although public data about the institutional revenues or profits derived from online education are extremely hard to find, especially for independent institutions (Bacow et al. 2012, 9–10; Bowen 2013b, 82), most institutions seem to draw fairly modest net revenues from online education and then typically from online degree or certificate programs in professional disciplines rather than individual courses in the liberal arts.

The existing evidence is inclusive as to whether "online learning [can] bend the higher education cost curve" for individual institutions or the sector as a whole (Deming et al. 2015). More research is needed on "the cost implications of online and hybrid instruction." As Derek Wu notes in his review of the recent student outcomes literature, "none of the studies…examine the effect of delivery formats on course costs, and yet several suggest that the potential cost reductions—or increases—associated with online and hybrid courses may be what ultimately drive the extent to which their results are actionable" (Wu 2015, 15).

Advocates of MOOCs predict that cost savings from online instruction, for institutions and individual students alike, ultimately will derive from scale. Yet the economically viable scale for MOOCs is likely to occur "beyond the number of learners that any instructor could possibly build individual relationships with, [which] is what distinguishes a [MOOC]…from a traditional residential, blended, or online course" (Kim 2015). Bowen and others argue that cost savings through online learning are possible at a smaller scale, for example: when hybrid and online courses are taught multiple times and perhaps by lower-cost instructors than the full professors who develop the original course materials; when online learning allows institutions to make more efficient use of faculty time and campus space (because online learning can take place at unusual hours and without physical classrooms); and when students take advantage of flexible scheduling to stay on track to complete degrees or even accelerate their time to degree (Bowen 2013b, 50–52; Cowen and Tabarrok 2014).

Another promising path to cost savings is collaboration, with "institutions creat[ing] online versions of their courses that can be traded with other institutions whose students have similar…aptitudes and preparation." In this scenario, a student's home institution can continue to set requirements and issue credits while the online courses attract a critical mass of students at a sustainable cost to the offering institutions. Potential savings would come from eliminating duplicate courses offered by different institutions and by increasing enrollments in upper-level courses that cannot attract a viable number of students from a single institution (Hoxby 2014, 532–533). CIC is piloting such collaboration through the Consortium for Online Humanities Instruction, a group of 21 independent colleges and universities developing and sharing upper-division online courses in the humanities. The preliminary evaluation by Ithaka S+R suggests that "any eventual economic benefits will derive from sharing of courses across the Consortium, not from instructor time savings in teaching them" (Griffiths, Brown, and Mulhern 2015, 8–9; also see Marcum and Samayoa 2015).

Barriers to Online Education

Uncertainties about the quality and cost structures of online education are the two most significant barriers to the adoption of online learning by independent colleges and universities. Other barriers include the recruitment and training of faculty members to teach online, the implementation and support of technology, and the perceived conflict between mission and high-tech learning that persists at many institutions.

The 2013 Learning House survey of CIC member institutions identified a long list of barriers that independent institutions have encountered while developing online and hybrid course offerings (Clinefelter and Magda 2013, 13–14). At least two-thirds of the surveyed institutions encountered the following:

- Greater faculty time and effort required to teach online;
- Lack of acceptance of online instruction by faculty members;
- Students who require more self-discipline and institutional support to succeed in online courses;
- Online courses that cost more to develop than traditional courses; and

- Concerns about the ownership of intellectual property (that is, whether faculty members, institutions, or perhaps some third party own the instructional materials used in online courses).

At least 20 percent of the surveyed institutions encountered difficulties with the following issues as well:

- Training and recruiting faculty to teach online;
- Meeting the demands for off-hour services;
- Verifying student identities;
- Measuring outcomes;
- Retaining students;
- Maintaining the learning management system and related technology;
- Providing access to campus services such as the library and registrar;
- Identifying students in need of special services; and
- Providing special services to students in need.

Many analysts focus on barriers to the adoption of online learning that stem from the perceptions and concerns of faculty members. In fact, some faculty members are skeptical about online education simply because they are unfamiliar with it (Bacow et al. 2012, 20; Banerjee 2011, 9–10; Liu and Tourtellott 2011). Other faculty members "fear that online instruction will be used to diminish faculty ranks" by automating some aspects of traditional classroom teaching, replacing full-time faculty members with per-course instructors teaching from standardized instructional materials, or substituting online courses taught elsewhere for courses taught by an institution's existing faculty. The actual impact of online learning on the changing composition of the academic workforce, however, is far from settled (Bacow et al. 2012, 20; Wheeler 2014; Barnshaw and Dunietz 2015, 13–15).

Many faculty members understand that developing online courses typically requires more time than developing traditional courses. According to a recent survey, most faculty members also are concerned about the lack of technical and other support for online learning at their institutions (Straumsheim, Jaschik, and Lederman 2015, 7). As a result, faculty members may need additional incentives to commit themselves to online instruction—especially at independent baccalaureate institutions, which are less likely than their public counterparts to recognize and reward the use of information technology as a formal part of the faculty review and promotion process (Green 2015, 49–50).

Most modes of online education require a robust IT infrastructure and on-demand technical support for faculty and students, preferably around the clock. The lack of technology resources and faculty support is especially challenging at smaller institutions. As Gouri Banerjee notes in her study of the introduction of hybrid learning at **Emmanuel College** (MA), "the rapid pace at which new technologies become available is overwhelming. With the greater focus on teaching, smaller departments, limited staff and resources at many smaller institutions, keeping up with online technologies/pedagogies [is] daunting" (Banerjee 2011, 11; also see Long et al. 2009). This concern is not limited to small institutions, however; the top priorities for information technology administrators across all campus types are assisting faculty to integrate IT into instruction, hiring/identifying qualified IT staff, and providing adequate user support (Green 2015, 46).

Finally, the student-focused mission of small independent colleges and universities can itself be a barrier to the adoption of online learning. Many of "these institutions are concerned that they will devalue their traditional, residential education if they move instruction online [and] they are sensitive to criticism from parents and students who believe that the high tuition and fees they are currently paying entitle students to regular, frequent, direct, face-to-face contact with faculty" (Bacow et al. 2012, 9; also see Scholz 2013). Some small colleges are reluctant, too, to adopt approaches to online instruction developed by or associated with large or even for-

profit institutions (Liu and Tourtellott 2010, 59). As the lead technology reporter for *Inside Higher Ed* notes, "the [relatively] low interest in online education isn't always motivated by hostility; some of the smallest institutions simply see it as irreconcilable with their mission statements" (Straumsheim 2014; also see Kim 2015).

Examples of Innovations in Online Education at Independent Colleges and Universities

CIC member institutions rely on a variety of innovative strategies to incorporate online learning into the undergraduate curriculum.*

Some institutions have focused on integrating technology throughout the campus and the curriculum, relying on both specialized learning management systems developed for the higher education market and other technologies developed for the consumer market. For example, in 2011 **Lynn University** (FL) began to provide iPad tablet computers to each of its faculty members and then to graduate students and undergraduate students enrolled in both residential and online degree programs. The goals were to help faculty members and students prepare for a world and workplace saturated by mobile devices, to save money by standardizing the software used on campus, and to replace expensive textbooks with digital course materials (Fuhrman 2014). The most significant implementation costs involve technology (including wireless connectivity on campus) and training both faculty and students to use the new learning tools. Lynn takes advantage of Apple's integrated software and hardware systems and the expertise of its own faculty members to develop course content for iTunes U and the iBook platform, saving students between 44 and 93 percent on traditional textbook costs and keeping undergraduate tuition increases in check (Meyer 2014).

Lynn University claims that it has "transformed the classroom from a physical place to a state of mind," and indeed adult students now have the option of completing bachelor's degrees entirely or mostly online though a program called iLynn introduced in 2015. But for most of the traditional undergraduate students at the Boca Raton campus, learning takes place in actual classrooms with low student-faculty ratios and includes a core curriculum of interdisciplinary seminars. In this case, digital content and flipped classrooms support high-touch undergraduate instruction. Inspired by Lynn's successful model, **Maryville University** (MO) introduced an online learning initiative featuring preloaded iPads in 2015; this initiative was preceded by an intensive professional development program for faculty members (Schaffhauser 2015). In a similar initiative, **Moravian College** (PA) launched a $2.4 million upgrade to its wireless infrastructure to support iPads and other mobile devices on campus, followed by a pilot program of hybrid courses to build faculty support. According to Moravian president Bryon Grigsby, "technology is just like any of the other liberal arts skills that we want to provide our students" (Straumsheim 2015a). Several other independent colleges also have experimented in providing each student with a laptop or tablet computer (BestColleges.com n.d.).

Many institutions have developed relatively small and specialized online programs for adult and professional students—such as the online recertification program for teachers at **Converse College** (SC) or the executive master's degree in communications innovation at **Ithaca College** (NY)—but few if any online offerings for undergraduate students. Other independent colleges and universities, such as **Champlain College** (VT) and **Southern New Hampshire University**, have developed extensive and innovative online programs that co-exist with traditional residential liberal arts programs but are run as separate divisions.

**Except where noted elsewhere, the descriptions of academic programs in this section are based on information from the institutions' public websites.*

Champlain, for example, has a residential campus with about 2,000 traditional-age students and a core curriculum featuring small, interdisciplinary courses that focus on the individual and the community, the Western tradition, and globalization. Champlain also has a continuing education division with 1,000 online students and partnerships with more than 50 corporations and government agencies, ranging from Ben & Jerry's to the federal government's Office of Personnel Management, for which the college provides skills-based online courses and certificate programs on a subscription pricing model (Straumsheim 2015b).

In the mid-1990s, **Saint Leo University** (FL) was another small independent college serving mostly traditional students, but with a modest continuing education program and a niche market of degree programs on U.S. military bases. A new president, Arthur Kirk, saw online education as an opportunity for expansion and committed $600,000 to a course development initiative. Saint Leo offered its first online courses in 1998, "when there was little competition beyond the University of Phoenix" (Kirk 2010, 32). By 2010, online education was generating $56 million a year in tuition and fees (Kirk 2010, 31). By 2014, Saint Leo continued to enroll about 2,300 students at its historic residential campus—plus another 14,000 enrolled wholly or partly online through its Center for Online Learning and a network of education centers across the South. It is "one of the nation's leading providers of higher education for active duty military and veterans."

According to Kirk, several factors have contributed to this success, starting with a strong institutional commitment and an adequate initial investment. Saint Leo adopted (and maintains) a highly structured course development process that brings together faculty members, instructional designers, and experts in adult learning. The result is standardized course content that can be taught with great consistency yet limits the autonomy of individual instructors. This is combined with a highly flexible approach to course delivery that offers different student populations different mixes of online and face-to-face instruction according to their needs, from wholly online programs for adult learners to low-residency professional programs to traditional residential undergraduate programs that incorporate many of the innovations in instructional technology developed for other programs. Kirk also recognizes the tremendous advantage that Saint Leo continues to enjoy as an early adopter, and he counsels other independent colleges:

> It is highly unlikely you can ever match even our modest (compared to the for-profits) totals.... But you need online courses and online programs. Traditional and non-traditional students increasingly demand—and often require—them. The time may have passed for the 'big growth' strategy, but if you want to protect what you have and hopefully grow it, you need to be online, now! (Kirk 2010; also see CIC 2014).

As if in response to Kirk's advice, some smaller institutions with distinctive missions have explored distinctive ways to offer online education. **Shimer College** (IL) is a very small institution, enrolling fewer than 150 students, and has a Great Books curriculum based entirely on primary sources and Socratic dialogue. A new strategic plan introduced in 2014 called for adding an online component to the curriculum. Faculty members were skeptical about applying the Socratic approach to an online environment, so Shimer began with an experimental pilot course for alumni that incorporated synchronous discussions and tools that allow students to share annotations to common texts. The ultimate goal is to convert half the core curriculum into online offerings "in a variety of forms over time, as periodic discussions among alumni, as continuing education and enrichment for wider audiences, as model classes for prospective students or donors, and as for-credit undergraduate courses" (Patterson 2014; also see Straumsheim 2014). **Campbellsville University** (KY) is a Baptist institution that offers several successful online degree programs at the associate's, bachelor's,

and master's levels, with particular strengths in theology, pastoral care, business, and education. Campus leaders were concerned, however, that distance learning students did not have "access to the same spiritual growth opportunities the main campus students have," so they developed the nation's first virtual chapel for online students as an extension of the face-to-face co-curriculum (Kich 2014).

Recognizing that faculty resistance is often the most significant barrier to the adoption of online learning, especially for instructors in the undergraduate curriculum, a number of CIC member institutions have focused particular attention on faculty development initiatives. **Baldwin Wallace University** (OH), for example, was another early adopter of online learning among independent liberal arts institutions, introducing hybrid courses for some adult students in 2002 (Martyn 2003). The first instructors were volunteers who recommended more formal professional development and dedicated faculty support for any future online courses. In response, the university sought external grant support to develop a Faculty Learning Community, which initially included eight faculty members. The group met every two weeks for a full academic year to discuss course redesign and teaching strategies, technology options, and institutional priorities for online learning; the discussions about priorities were especially important for building faculty support by reconfirming that hybrid courses with an experiential component were a good curricular fit for the institution. Faculty participants received a stipend and the staff support of a group facilitator and an instructional technology professional (Long et al. 2009).

The Faculty Learning Community at Baldwin Wallace helped establish best practices and evaluation guidelines for future courses. It also developed a core of faculty advocates who provided peer mentoring and support for the steady expansion of online learning at the institution from a few hybrid courses during summer terms to fully online courses during the regular academic year. Support for online teaching was subsequently incorporated into other professional development opportunities for faculty members. **Connecticut College**, a recent adopter of online learning, introduced a similar initiative in 2014 called the Technology Fellows Program, with the same goal of building a core of faculty experts and peer advocates. Participants engage in a three-semester pilot program to explore new pedagogies, develop and offer hybrid courses, and evaluate the student learning outcomes. According to one participant in the program, the "combination of workshops and seminars is resulting in a sustained conversation about the role(s) of digital technology in teaching and learning" while "offering an institutional model in terms of [the program's] support for faculty innovation in teaching" (McCullough 2015).

Finally, a number of independent colleges and universities have identified collaborations with one, a few, or many other institutions as a way to share the benefits and costs of online education in the liberal arts. As part of CIC's Consortium for Online Humanities Instruction, **Connecticut College** and **Trinity College** (CT) are working to address the dilemma of foreign language instruction in small colleges. In the past, both institutions have strained their resources to offer robust Russian language programs with only two full-time faculty members at each institution and few Russian majors. The potential solution, now being piloted, is a coordinated program of mid- and upper-level courses offered by faculty members at one or both institutions and open to students from both institutions via a combination of videoconferencing and asynchronous communication tools (Marcum and Samayoa 2015, 11). **Bridgewater College** (VA) and eight other independent colleges and universities in Virginia are using video and audio conferencing systems to pool their students and teaching resources to sustain courses in Mandarin, Arabic, and German, for which there is insufficient demand on any one campus (Graham 2015). The Associated Colleges of the South has supported experiments in blended

learning on individual campuses and within small consortia of independent institutions for more than a decade, in subject areas ranging from the classics to career planning, many of which have been documented in case studies to highlight best practices (Hagood and Pang 2014).

At a larger scale, the Online Consortium of Independent Colleges and Universities (OCICU) (*www.ocicu.org*) is a "virtual academic consortium in which member institutions collaborate in sharing online, credit-bearing courses and programs." Institutions pay a flat fee to join OCICU, which gives their students access to hundreds of fully online courses developed by other member institutions, and a fee per enrolled student that is passed to the offering institution. The latter fee is typically less than what the home institution charges the student and more than the marginal cost to the offering institution of an extra student. The Consortium is managed by **Regis University** (CO), which handles most of the registration and coordination tasks. Sunoikisis (*http://wp.chs.harvard.edu/sunoikisis*) is a national consortium of classics programs from nearly 100 colleges and universities, including many CIC member institutions. Founded in 1999 and supported by Harvard University's Center for Hellenic Studies, the goal of Sunoikisis is "to supplement small or under-resourced classics programs with classes and lectures that a one- or two-person department might not be able to offer under typical circumstances." To that end it develops digital teaching materials and online courses that students may take for credit under the guidance of faculty members at their home institutions.

Independent colleges and universities will continue to innovate in the field of online learning, but the most sustainable innovations will necessarily balance new approaches and the "focus on small classroom sizes and face-to-face time with students" that has traditionally characterized such institutions. Brian Rellinger, chief information officer at **Ohio Wesleyan University**, argues that "using technology strategically can benefit a small, liberal arts college without compromising our core values." But he also advises that "sorting out the trends from the game changers is difficult, and sometimes impossible.... Technology is not needed in every classroom or course, or by every faculty member. The correct approach is to evaluate and implement technology where it makes the most sense" (Rellinger 2013).

Questions to Consider

The leaders of independent colleges and universities may want to consider the following questions about the introduction or expansion, sustainability, and impact of online education at their institutions:

- Is online learning an institutional fit? "Fit" may include issues of mission, faculty support, and the identification of appropriate institutional resources for financing and risk management, technology infrastructure, faculty and student support services, and operating procedures that can accommodate online learners (Cook 2015).
- In an article designed primarily for college trustees, Green and Wagner (2011) offer six essential questions about online learning that make sense for any institutional stakeholder to ask: Why are we online? What will it cost (and who is going to pay for it)? How do we support faculty members and students in our online programs? What are the organizational arrangements for our online learning programs? How do we assess quality? Who owns the intellectual property of our online courses?
- Does online education make sense for some of an institution's students—such as graduate, adult, or professional students who are less likely to expect a traditional residential college experience—but not for other students?
- What is the potential cost—to revenues, enrollments, or reputation—of *not* being online?
- Which learning technologies are right for the students at a given institution? George Siemens, a pioneer in the field of online education who helped create the first MOOC, offers a series of questions to help evaluate new education technologies (Siemens 2015). The goal is to assure that learning technologies remain student-centered and high-touch: Does the technology foster creativity and personal expression? Does the technology develop the learner and contribute to her formation as a person? Is the technology fun and engaging? Does the technology have the human teacher and/or peer learners at the center? Does the technology consider the whole learner?

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Note: All web links were working and accurate at the time of publication.

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Suggestions for Further Reading

Note: A more extensive bibliography of online learning with an emphasis on independent colleges and universities is available at *www.cic.edu/OnlineEdBibliography*.

Several writers offer useful frameworks for thinking about costs, financial risks, and other aspects of institutional planning for online education. These guides build from simple yet fundamental questions to more detailed questions in roughly the following order:

> Tony Bates, "How to Assess the Costs of Online Learning in Postsecondary Education," *Contact North/Contact Nord* (no date), *http://contactnorth.ca/trends-directions/cost-savings/how-assess-costs-online-learning-post-secondary-education*.
>
> Kenneth C. Green and Ellen Wagner, "Online Education: Where Is It Going? What Should Boards Know?" *Trusteeship* 19:1 (Jan./Feb. 2011), 24–29, *http://agb.org/trusteeship/2011/januaryfebruary/online-education-where-is-it-going-what-should-boards-know*. Written from the perspective of college and university trustees but equally useful for other stakeholders.
>
> Vickie Cook, "Is Online Learning an Institutional Fit?," *The EvoLLLution* (January 15, 2015), *http://evolllution.com/opinions/online-learning-institutional-fit*. The questions in this article fall into the categories of administration, teaching and learning, and student support services.
>
> Charles R. Graham, Wendy Woodfield, and J. Buckley Harrison, "A Framework for Institutional Adoption and Implementation of Blended Learning in Higher Education," *The Internet and Higher Education* 18 (July 2013), 4–14, *http://goo.gl/E66Q9f*.

William G. Bowen, *Higher Education in the Digital Age* (Princeton, NJ: Princeton University Press, 2013). Bowen, president emeritus of Princeton University and the Andrew W. Mellon Foundation, presents an optimistic vision of how adaptable colleges and universities can use digital technologies to maintain excellent student learning outcomes and lower instructional costs.

Deanna Marcum and Clara Samayoa, *Leveraging Technology for the Liberal Arts: The Council of Independent Colleges Consortium for Online Humanities Instruction* (New York, NY: Ithaka S+R, 2015), *www.sr.ithaka.org/wp-content/uploads/2015/11/SR_Case_Study_Leveraging_Technology_Liberal_Arts_CIC110515.pdf*. This report by the managing director of Ithaka S+R includes a detailed discussion of the CIC Consortium, a collaborative effort by 21 independent colleges and universities to develop and share online courses in the humanities, and a more general discussion of online education at smaller liberal arts institutions.

Carl Straumsheim, Scott Jaschik, and Doug Lederman, *The 2015 Inside Higher Ed Survey of Faculty Attitudes on Technology* (Washington, DC: *Inside Higher Ed* and Gallup, Inc., 2015), *www.insidehighered.com/booklet/2015-survey-faculty-attitudes-technology*. While this survey demonstrates that many faculty members remain deeply skeptical about online learning, it also explores the multiple criteria that faculty members rely upon to evaluate the quality and effectiveness of online courses.

The *OLC Quality Framework* (*http://onlinelearningconsortium.org/5-pillars*) is a distillation of pioneering work begun in the late 1990s by the Sloan-C Consortium (now the Online Learning Consortium) to define effective online learning. The "5 Pillars" of this framework include access, learning effectiveness, faculty satisfaction, student satisfaction, and scale (cost effectiveness and institutional commitment). The OLC website includes a number of reports and case studies.

The *Quality Matters Higher Education Rubric* (*www.qualitymatters.org/rubric*) is a research-informed set of "eight general standards and 41 specific standards used to evaluate the design of online and blended courses." The rubric was originally developed by the University System of Maryland with a grant from the federal Fund for the Improvement of Postsecondary Education. Institutions that subscribe to *Quality Matters* receive access to extensive professional development opportunities and peer review of online courses.

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