

TEXAS PUBLIC POLICY FOUNDATION

# THE FUTURE FACE OF HIGHER EDUCATION

ONLINE LEARNING IN THE NEW ECONOMY

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# The Future Face of Higher Education: *Online Learning in the New Economy*

by Dr. Thomas K. Lindsay

## Executive Summary

Advancing information technology is transforming the world and, with it, higher education. This is occurring despite the fact that much of the higher-education establishment has failed fully to capitalize on the potential of online education.

According to a growing number of education analysts, online education promises both to reduce costs and increase student-learning outcomes. It also may be said to democratize higher education, first, through facilitating a more student-centered approach, which better enables each student to fulfill his potential, and second, through increasing access for those currently unable to avail themselves of brick-and-mortar education, such as working adults, parents of young children, those living in remote rural areas, and those who cannot afford the ever-escalating cost of traditional higher education.

According to one national study, “the rate of growth in online enrollments is ten times that of the rate in all higher education.” Thirty-one percent of higher education students currently are enrolled in one or more online courses. Over six million students enrolled in at least one online course during the fall 2010 term, an increase of 560,000 students over the previous year. At the same time, the study finds that there “continues to be a consistent minority of academic leaders” who object that the quality of online instruction is inferior to that of courses delivered face-to-face. But these objections are countered by a growing number of scientific studies. The Department of Education’s meta-analysis of 44 separate studies concluded that when online learning is joined to face-to-face instruction (the mix of the two is called “blended” or “hybrid” learning) “blended instruction has been more effective, providing a rationale for the effort required to design and implement blended approaches.”

In 2011, Texas made inroads in online learning when Western Governors University, with Governor Rick Perry’s support, established a branch in the Lone Star State. WGU is an accredited, private, nonprofit university founded in 1997 by 19 governors. Its courses are offered primarily online; the focus of its bachelor’s and master’s degrees is career-oriented. To this positive step more need to be added. In the coming session, Texas’ elected representatives should act to remove a number of existing barriers to the further expansion of online education.

## Recommendations

- Texas should decouple the Early College High School program from traditional brick-and-mortar colleges and include a curriculum of Internet-delivered courses provided by private non-profit and for-profit institutions with national and regional accreditation.
- The Governor should appoint a commission to review the Core Curriculum requirements at Texas public community colleges, colleges, and universities in order to learn whether access to those programs via the Internet would improve the civic education of Texas college students and citizens.
- Expand the online degree rider that was successfully added to HB 1 during the 2011 session. The rider requires public institutions of higher education to submit to the Coordinating Board a cost study of the four most popular degree plans that can be made available online. This cost study should be expanded to include all STEM (Science, Technology, Engineering, and Mathematics) courses, not covered by the first study, plus all lecture courses in all fields.

## The Digital Revolution in Learning

Since the invention of the telegraph, advances in information technology have been chipping away at the shackles of space and time, enabling virtually instant communication across land, oceans, even interplanetary space. This high-tech-fueled freedom march appears headed next toward the reconstruction of education itself, or at least a considerable portion thereof.

Advances in information technology promise also to provide a revolutionary response to the new challenges posed by the knowledge economy. A key player in this burgeoning revolution is online education.

This progress in information technology takes place within the world's movement from the Industrial to the Information Age, in which intellect, perhaps above all else, has today become the effective basis of corporate capital valuation. In the New Economy, intellect as well as capital glides globally at warp speed. This has reduced the relevance of a number of the technical skills and occupations valued during the Industrial Age. These skills have lost purchase in today's economy in much the same manner and for many of the same reasons that computer software loses its cutting edge almost as soon as it hits the store shelves.

According to a growing consensus of education analysts, these advances in information technology promise also to provide a revolutionary response to the new challenges posed by the knowledge economy. A key player in this burgeoning revolution is online education. However, the higher education establishment is only beginning to capitalize—and that in fits and starts—on the liberating potential of online learning.

As recently as 2006, the Secretary of Education's Commission on the Future of Higher Education noted with alarm the following:

American higher education has become what, in the business world, would be called a mature enterprise: increasingly risk averse, at times self-satisfied, and unduly expensive. It is an enterprise that has yet to address the fundamental issues of how academic programs and institutions must be transformed to serve the changing educational needs of a knowledge economy. It has yet to successfully confront the impact of globalization, rapidly evolving technologies, an increasingly diverse and aging population, and an evolving marketplace characterized by new needs and new paradigms.

History is littered with examples of industries that, at their peril, failed to respond to—or even to notice—changes in the world around them, from railroads to steel manufacturers. Without serious self-examination and reform, institutions of higher education risk falling into the same trap, seeing their market share substantially reduced and their services increasingly characterized by obsolescence.<sup>1</sup>

Put simply, a world made new requires new modes of education.

## Socrates in Cyberspace?

From Clayton Christensen's and Henry Eyring's *The Innovative University* (2011),<sup>2</sup> to Richard DeMillo's *Abelard to Apple* (2011),<sup>3</sup> to Terry Moe's and John Chubb's *Liberating Learning* (2009),<sup>4</sup> we learn the extent to which the ground has shifted beneath the feet of the education establishment. DeMillo deems this transformation so far-reaching and rapid that more than a few universities will fail to "survive the coming changes."<sup>5</sup> Michael Horn, co-author with Clayton Christensen and Curtis Johnson of *Disrupting Class* (2008),<sup>6</sup> goes so far as to predict: "I wouldn't be surprised if in 10 to 15 years, half of the institutions of higher education will have either merged or gone out of business."<sup>7</sup> At the very least, adds DeMillo, none will be able to proceed on the basis of education as usual. Instead, the coming paradigm will create "a new set of rules and a very different conception of the value of universities in the 21st century."<sup>8</sup>



Why is online education deemed a metaphysical and existential threat to brick-and-mortar higher education institutions and practices? DeMillo's *Abelard to Apple* addresses this by calling attention to the career of the 12th century monk, Peter Abelard. Abelard was not affiliated with any formal institution of higher learning; instead, something of a medieval Socrates, he drew and captivated a circle of devoted students intoxicated by his invitation to, as well as his example of, free inquiry. Abelard's example would come to influence the form and character of a number of universities that grew later, primarily in Italy. Higher education there consisted of relatively freewheeling exchanges between pay-as-you-go students and their teachers. In short order, this was superseded by the much more formal structures we have come to know: "Free-flowing dialog between undisciplined, demanding students and charismatic masters was replaced with austere, unpleasant classrooms, aloof professors, and the compulsion of a classical core curriculum," writes DeMillo.<sup>9</sup>

DeMillo's dissatisfaction with what has succeeded Abelard has much less to do with a core curriculum and more to do with the rigid faculty-student relations as well as the cost to students under the new regime.<sup>10</sup> Moreover, students have had little alternative to the prevailing framework available to them.

Until now. In one sense, online education may be said to democratize higher education. First, it facilitates a much more student-centered approach and, in so doing, enables a heretofore undreamt of degree of course customizing. Students come to school with different strengths and weaknesses. Advances in online-learning technology better enable each student to fulfill his potential through finding the pace and path that fits him best. Second, online learning may be said to democratize postsecondary education through its capacity to increase access for those currently unable to avail themselves of brick-and-mortar education, such as working adults, parents of young children, those living in remote rural areas, and those who cannot afford the high and ever-escalating cost of traditional higher education.<sup>11</sup>

## The Growth of Online Education

For the last nine years, the Babson Survey Research Group, in collaboration with the College Board, has tracked online learning through surveys of over 2,500 academic leaders across the country. Its latest survey, “Going the Distance: Online Education in the United States, 2011,” testifies that online learning has skyrocketed in the last decade. More important, this growth, impressive as it has been, is likely to be trumped by what follows.

The flexibility offered by online education addresses a felt need of the largest segment of consumers of American higher education: non-traditional students, who form the majority of today’s college students.

“The rate of growth in online enrollments is ten times that of the rate in all higher education,” writes the study’s co-author and Professor of Statistics & Entrepreneurship at Babson College, I. Elaine Allen.<sup>12</sup> According to the survey’s web site, 31 percent of higher education students currently are enrolled in one or more online courses. Over six million students enrolled in at least one online course during the fall 2010 term, an increase of 560,000 students over the previous year. The real weight of this number is illuminated by the fact that this 10 percent growth rate for online enrollments far exceeds the 2 percent growth in the overall higher education student population. Student satisfaction is comparable for online and traditional courses, according to the academic leaders surveyed. Moreover, two-thirds of the higher education institutions surveyed testified that online education today has become critical to their long-term education strategy.<sup>13</sup>

At the same time, the survey finds that there “continues to be a consistent minority of academic leaders concerned that the quality of online instruction is not equal to that of courses delivered face-to-face.”<sup>14</sup> To these concerns I shall return at the conclusion of this paper.\*

The reasons for the documented growth in online education are not difficult to discern. For those 30 and younger, the internet has been a part of life since their earliest teens. While internet-based activities—learning, commerce, social networking, etc.—are acquired tastes for those of us who are older, for today’s undergraduate and graduate students, they are as “natural” as texting.

Add to this the fact that the flexibility offered by online education addresses a felt need of the largest segment of consumers of American higher education: non-traditional students, who form the majority of today’s college students. More than half of students enrolled in higher education today are over age 25; approximately one-third are working full-time while pursuing their education.<sup>15</sup> Such students, by and large, can ill afford to relocate to attend a four-year college. Many have families of their own to raise and for which to provide. For those who must work full time and cannot relocate, by what means might they hope to earn a postsecondary certificate, or an Associate’s or Bachelor’s degree? For more than a few of this, the new majority, the best if not only option is online education.

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\* Below at Pgs. 11-13.

## Studies of the Benefits of Online Learning

In 2009, the U.S. Department of Education published its “Evaluation of Evidence-Based Practices in Online Learning.” The Department report concluded that “students who took all or part of their class online performed better, on average, than those taking the same course through traditional face-to-face instruction.” In its concluding section, the report’s authors are quick to qualify the above statement with the following: “When used by itself, online learning appears to be as effective as conventional classroom instruction, but not more so. However, several caveats are in order. Despite what appears to be strong support for blended learning applications, the studies in this meta-analysis do not demonstrate that online learning is superior as a medium. In many of the studies showing an advantage for blended learning, the online and classroom conditions differed in terms of time spent, curriculum and pedagogy. It was the combination of elements in the treatment conditions (which was likely to have included additional learning time and materials as well as additional opportunities for collaboration) that produced the observed learning advantages.”

It is important to note that the Department report next qualifies its own qualification: After appearing to walk back from the conclusion that “online learning is superior as a medium,” the reports adds, “At the same time, one should note that online learning is much more conducive to the expansion of learning time than is face-to-face instruction.” That is to say, the Department report is reluctant to grant online learning any superiority other than that it is more conducive than face-to-face learning to “the expansion of learning.” Some wonder whether this distinction constitutes a true difference.

In any event, the Department report is far less guarded when it comes to the superiority of blended learning over face-to-face instruction: “In recent experimental and quasi-experimental studies contrasting blends of online and face-to-face instruction with conventional face-to-face classes, blended instruction has been more effective, providing a rationale for the effort required to design and implement blended approaches.”<sup>16</sup>

A more recent analysis has far fewer reservations. “When technology is used, it boosts student achievement,” writes John E. Chubb in the April 2012 study, *Education Reform for the Digital Era*, prepared for the Thomas B. Fordham Institute. While his focus is on K-12 education, Chubb’s observations are equally applicable to higher education: “Online programs allow schools to customize instruction to individual student needs. They also offer students one-on-one tutoring by teachers working remotely. ... In sum, technology can bring many instructional tools to the student that a regular classroom teacher simply cannot.”

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In addition to freeing up teachers' time for more individual-level work with their students, online education's greater efficiency holds out the promise of reducing the cost of higher education.

In the same report, Tamara Butler Battaglino, Matt Haldeman and Eleanor Laurans write, "The traditional school model spends over half of its budget on labor, with the majority of the remainder allocated to school operations." They add, "The promise of online learning is twofold: More-effective uses of technology have the potential both to improve student outcomes and to create a more productive educational system."<sup>17</sup>

In sum, online learning's benefits consist, first and foremost, in the greater flexibility and customization offered. In addition, students have a far-wider range of choices of teachers and subjects than they do with traditional brick-and-mortar education. Consider also those students who live in remote and/or crime-ridden areas. For them, online education offers perhaps the only opportunity for a way out and up.

No less revolutionary, as one study recently documented, online education has the capacity to alter the criteria by which students ascend to higher grade-levels, "shifting the focus from 'seat-time' to a competency or mastery-based approach."<sup>18</sup> Because of the capacity of online education to customize learning on a scale never before possible, students can "proceed to higher levels as they master subjects," rather than be inhibited through being forced to proceed at the same pace of the rest of the class. Also, "customized learning programs can allow for real-time monitoring and tracking" of progress, which allows for timely interventions in those instances when a student falls behind.<sup>19</sup>

In addition to freeing up teachers' time for more individual-level work with their students, online education's greater efficiency holds out the promise of reducing the cost of higher education. In *Liberating Learning*, Moe and Chubb conclude that, through the use of online learning, "schools can be operated at lower cost, relying more on technology (which is relatively cheap) and less on labor (which is relatively expensive)."<sup>20</sup>

## Recent Developments in Online Learning in Texas: WGU

In 2011, with Texas Governor Rick Perry's support, Western Governors University established a branch in the Lone Star State. WGU is an accredited, private, nonprofit university founded in 1997 by 19 governors. Its courses are offered primarily online; the focus of its bachelor's and master's degrees is career-oriented. Students in the new Texas branch are eligible for federal financial aid, as well as other forms of assistance. At this writing, WGU-Texas has 2,300 students and is averaging approximately 1,000 applications a month. WGU-Texas Chancellor, Mark Milliron, estimates that the university will grow to enroll 20,000 students by the end of the decade: "There's such a large market of transfer students and working adults that have some college and no credential."<sup>21</sup>

WGU-Texas offers degrees in education, health, information technology, and business. Employing "competency units" and a "learning-progression model," WGU does not require seat-time, as traditional universities do. Instead, progress from one level to the



next is based on competency exams. Students pay a flat rate of approximately \$3,000 every six months. The average student graduates in 30 months, which results in the average degree costing approximately \$15,000. Student age ranges from 25 to 55, with the average student being in the mid-30s. The typical WGU student is already employed and likely has some college credit accumulated coming in.

Milliron is quick to point out that WGU is “not a good model for an 18-year-old who wants a residential experience. Seventy-four percent of our students are ethnic minorities, from rural areas or otherwise from underserved populations.” For such students, he adds, WGU is “a good fit. We have a 78 percent first-year retention rate.”

An oft-heard criticism of online learning is that it fails sufficiently to develop a real community—in and out of the classroom—among students and faculty.<sup>22</sup> Milliron rejoins that this critique is “the same knock against any commuter school, and it’s probably the knock against most regional universities that have a smaller residential footprint with the rest mostly commuter. Those are all valid criticisms if that’s really important for you, to have that kind of deep community connection.” At the same time, he stresses WGU’s efforts to “provide deep faculty interaction with an online learning model. Most online instruction, to be blunt, is just traditional instruction put online. It’s really overheads put online with some stuff around the edges. Our model is much more about learning-centered progression, and it’s deeply personal in terms of the faculty and student interaction.”<sup>23</sup>

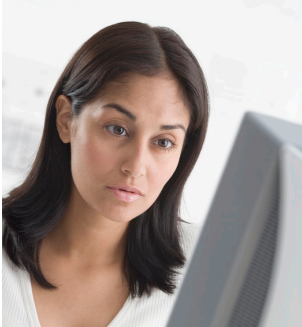
To accomplish this, students and faculty are connected through Skype. WGU also employs a “three-tiered structure for faculty members,” consisting, first, of student mentors, who do not teach but rather, manage student caseloads, tracking the same students from the time of initial contact with WGU up through graduation. The second element in this structure is the “course mentor,” virtually all of whom possess a Ph.D., and whose primary task is to provide students curricular guidance. The third tier is the faculty itself. Course mentors and faculty “are brought in as needed.” Only the course mentors are full-time, and they “drive the majority of the work.”<sup>24</sup>

Learning competencies are measured through a variety of assessments, depending on the subject matter. It can be a test, paper, project, or, when appropriate, a performance. For example, “if it’s a phlebotomy course, you actually have to draw blood.”<sup>25</sup>

Not all of WGU’s courses are fully online. For example, its “prelicensure nursing program is probably better classified as a hybrid program; at least one-third to one-half of that is done face to face. Our teacher program—you have to go into schools and do your student teaching.”

WGU-Texas offers degrees in education, health, information technology, and business. Employing “competency units” and a “learning-progression model,” WGU does not require seat-time, as traditional universities do.

## The Next Step: “M.I.T.x”



Just this year, the benefits of online education have come together in one revolutionary package, via the Massachusetts Institute of Technology. At the end of December 2011, M.I.T. announced its plan to inaugurate an online education program titled “M.I.T.x.” As detailed in its web site, *M.I.T.x* will offer a subset of MIT’s courses, *free of charge*, through an online interactive learning platform that will “organize and present course material to enable students to learn at their own pace; feature interactivity, online laboratories and student-to-student communication; allow for the individual assessment of any student’s work and allow students who demonstrate their mastery of subjects to earn a certificate of completion awarded by *M.I.T.x*,” and finally, “operate on an open-source, scalable software infrastructure in order to make it continuously improving and readily available to other educational institutions.”<sup>26</sup>

MIT’s vision is ambitious, to say the least: it “expects that *M.I.T.x* will eventually host a virtual community of millions of learners around the world.” Moreover, for what it describes as a “small” fee, *M.I.T.x* will award credentials in various areas to successful students who desire documentation of their progress for present and prospective employers.<sup>27</sup>

As impressive as it will be to provide MIT’s high-quality courses for free to students across the world, the revolutionary nature of the initiative does not consist in this alone. The true distinctiveness of the project, according to MIT Provost L. Rafael Reif, consists in the fact that *M.I.T.x* will combine this expansion of online learning with a continuous updating of its learning technology.<sup>28</sup> According to the web site: “Offering interactive MIT courses online to learners around the world builds upon MIT’s OpenCourseWare, a free online publication of nearly all of MIT’s undergraduate and graduate course materials. Now in its 10th year, OpenCourseWare includes nearly 2,100 MIT courses and has been used by more than 100 million people.” Moreover, MIT will make its *M.I.T.x* open learning software available, free of charge, to any and all education institutions who wish to employ it to enhance the quality of their own online programs. This will make it possible for “other communities of developers to contribute to it, thereby making it self-sustaining,” notes Anant Agarwal, an MIT professor and director of MIT’s Computer Science and Artificial Intelligence Laboratory (CSAIL), who adds that this would guarantee that “the infrastructure will improve continuously as it is used and adapted.”<sup>29</sup>

Appraising *M.I.T.x* in the December 2011 *Forbes*, James M. Crotty finds in it the promise of “a totally free college education.”<sup>30</sup> Crotty notes the extent to which *M.I.T.x* will support student-centered education: “Students using the program will be able to communicate with their peers through student-to-student discussions, allowing them an opportunity to ask questions or simply brainstorm with others, while also being able to access online laboratories and self-assessments.”<sup>31</sup>

Crotty concurs with Reif’s assessment of the truly distinctive character of *M.I.T.x*, viewing it as “the next logical evolution” in the growth of free-online education, providing an “interactive experience” rather than a mere “videotaped lecture.” He finds *M.I.T.x* to combine the best of Academic Earth and the Khan Academy. Academic Earth offers online courses, some from prestigious universities, accessible for free to users across the globe. “Users on Academic Earth can watch lectures from some of the brightest minds our universities have to offer from the comfort of their own computer screen. However, that is all they can do: watch.” In contrast, Khan Academy, “offers a largely free interactive experience to its users through assessments and exercises, but it limits itself to K-12 education.”<sup>32</sup> The Khan Academy website, launched by Salman Khan in September of 2006, offers 2,800 tutorials and has, at this writing, delivered nearly 121 million lessons “covering everything from arithmetic to physics, finance, and history and 303 practice exercises.”<sup>33</sup>

*M.I.T.x* merges Khan’s interactivity with the collegiate content of Academic Earth, “while drawing primarily from M.I.T.’s advanced course material,” notes Crotty, who concludes that, given (1) *M.I.T.x*’s appropriateness for instruction in STEM (Science, Technology, Engineering, and Mathematics) subjects, and (2) “the country’s sizable need for STEM graduates, *M.I.T.x* is nothing short of revolutionary.”<sup>34</sup>

## Continuing Concerns: The Loneliness of the Long-Distance Learner

Online education is making its presence increasingly felt every day, at both the K-12 and postsecondary levels. Progress at the former has led Clayton Christensen and Michael Horn to predict that, by 2019, 50 percent of all courses for grades 9-12 will be taken online—“the vast majority of them in blended-learning school environments with teachers, which will fundamentally move learning beyond the four walls and traditional arrangement of today’s all-too-familiar classroom.”<sup>35</sup>

If this forecast proves even half-right, it is reasonable to expect that future waves of online-educated, college-bound students will be comfortable with, will expect, and perhaps—given both its lower cost and documented instructional efficacy—will even demand a similar mix of face-to-face and online education.<sup>36</sup>

This growing dynamic, coupled with society’s need for ever-more workers with post-secondary credentials, constitutes nothing less than an irresistible force the effect of which cannot but radically transform public education at all levels. Increasingly, this transformation is being embraced by existing institutions. Recall that the latest Babson/College Board survey found that two-thirds of the higher education institutions surveyed view online education as critical to their long-term education strategy.<sup>37</sup>

It is reasonable to expect that future waves of online-educated, college-bound students will be comfortable with, will expect, and perhaps—given both its lower cost and documented instructional efficacy—will even demand a similar mix of face-to-face and online education.

The majority of courses today could be adapted to fully-online or hybrid formats, with concomitant savings, increased access, and equal or superior outcomes.

But recall also that the same survey found that there “continues to be a consistent minority of academic leaders concerned that the quality of online instruction is not equal to courses delivered face-to-face.”<sup>38</sup> For these critics, neither online learning’s lower costs nor its documented increases in learning outcomes settle the matter. A genuinely *higher* education, they assert, seeks an end superior to proficiency alone, an end the pre-eminence of which simultaneously aids in distinguishing vocational from liberal education, while enhancing both. Vocational education is oriented by what it might enable students to learn to *do*; liberal education, by what it might enable them to learn to *be*. Consistent with the fact that the word “liberal” in liberal education has the same root as the word, “liberty,” liberal education, properly understood, aims at preparing more than workers. It is, in addition, an education *in* and *for* liberty understood in its three highest senses, that is, intellectual, moral, and political liberty. According to this view, the development of the intellectual, moral, and political virtues takes place best in face-to-face interaction with others: learning is not to be found simply in books, or on Kindle, or on one’s laptop; it is to be found in face-to-face community.

The fear of such critics is that online learning—necessarily more solitary than traditional, face-to-face learning—cannot help but exacerbate modern life’s atomizing tendencies, further undercutting community in a world already increasingly populated by, to use Allan Bloom’s phrase, “social solitaires.”<sup>39</sup>

Regardless of the weight one attributes to it, this objection comes too late. At least as far back as Aristotle’s day, it has been recognized that with progress comes an unavoidable loss of a certain “intimacy,” as he relates in *The Politics* when tracing the development of the first village out of the household, and that of the first city out of the village.<sup>40</sup> Each successive stage is less intimate, and necessarily so, than that which preceded it.<sup>41</sup>

In addition, as we have seen in our examination of WGU, the Khan Academy, and *M.I.T.x*, advances in interactivity are occurring on a regular basis. Online learning is no longer, quoting WGU’s Milliron, merely “overheads put online with some stuff around the edges.” This is not to deny that certain subjects and approaches are better taught face to face. As a Ph.D. who taught political philosophy for two decades, personal experience in the classroom has shown the author the necessity of face-to-face instruction in, for example, the small-discussion-group format required for writing courses in particular and for much of the humanities in general. But such courses represent the minority of offerings in most universities. The majority of courses today could be adapted to fully-online or hybrid formats, with concomitant savings, increased access, and equal or superior outcomes.

Viewing the matter in a related light, online education is a means—likely the only means—to the end of providing postsecondary education to greater numbers than ever before. The end of increasing postsecondary degrees is, in turn, a means to the end of providing a workforce that can hope to compete successfully in our ever-more-competitive global marketplace. But the global marketplace is itself the product of our progress in information technology. Each feeds on and, in turn, fosters the other. In vain, then, do we seek to arrest, much less reverse, that which has come and is coming.<sup>42</sup>

Policymakers need also to consider the seriousness with which other nations are implementing online education at the secondary level, with clear implications for similar use at postsecondary institutions. According to the International Association for K-12 Online Learning (iNACOL), a number of countries are in fact surpassing the United States in the range of online learning initiatives that they are implementing.<sup>43</sup> Singapore leads the way: already, all of its secondary schools employ online learning. Turkey has launched an initiative aimed at providing online learning for 15 million children by 2014. By 2020, India plans to have in place a system of online learning that will enable it to make good on its promise of universal access to education. Finally, China is designing a national system of online learning with the view to effecting a significant increase in the number of children receiving an education.<sup>44</sup>

Rather than pine for a return to a model of education already rendered in some respects antediluvian, it is more prudent to embrace the utility and develop further the functionality of online education.

## Conclusion & Recommendations

In light of the above, this study recommends the following: rather than pine for a return to a model of education already rendered in some respects antediluvian, it is more prudent to embrace the utility and develop further the functionality of online education. Given the breathtaking speed with which progress is being achieved in information technology, this embrace should begin but not end with the three measures recommended at the outset of this essay:

- Texas should decouple the Early College High School program from traditional brick-and-mortar colleges and include a curriculum of Internet-delivered courses provided by private non-profit and for-profit institutions with national and regional accreditation.
- The Governor should appoint a commission to review the Core Curriculum requirements at Texas public community colleges, colleges, and universities in order to learn whether access to those programs via the Internet would improve the civic education of Texas college students and citizens.

- Expand the online degree rider that was successfully added to HB 1 during the 2011 session. The rider requires public institutions of higher education to submit to the Coordinating Board a cost study of the four most popular degree plans that can be made available online. This cost study should be expanded to include all STEM (Science, Technology, Engineering, and Mathematics) courses, not covered by the first study, plus all lecture courses in all fields.

## Endnotes

<sup>1</sup> *A Test of Leadership: Charting the Future of U.S. Higher Education*, A Report of the Commission Appointed by Secretary of Education Margaret Spellings, Pre-Publication Copy (Sept. 2006).

<sup>2</sup> Clayton M. Christensen and Henry J. Eyring, *The Innovative University: Changing the DNA of Higher Education from the Inside Out* (San Francisco, CA: Jossey-Bass, 2011).

<sup>3</sup> Richard A. DeMillo, *Abelard to Apple: The Fate of American Colleges and Universities* (2011: Massachusetts Institute of Technology).

<sup>4</sup> Terry M. Moe, John E. Chubb, *Liberating Learning: Technology, Politics, and the Future of American Education* (John Wiley & Sons, Inc. Published by Jossey-Bass, 2009).

<sup>5</sup> *Abelard to Apple*, x.

<sup>6</sup> Clayton M. Christensen, Michael B. Horn, and Curtis W. Johnson, *Disrupting Class: How Disruptive Innovation Will Change the Way the World Learns* (New York: McGraw Hill, 2008).

<sup>7</sup> Cited in “College for \$99 a Month,” by Kevin Carey, *Atlantic Monthly* (Sept./Oct. 2009).

<sup>8</sup> *Abelard to Apple*, x.

<sup>9</sup> *Ibid.*, 131.

<sup>10</sup> Tuition has increased four times faster than the consumer price index and outstripped growth in health care spending (see Vance McMahan and Mario Loyola, U.S. Chamber of Commerce and Institute for a Competitive Workforce; “College 2.0: Transforming Higher Education through Greater Innovation and Smarter Regulation” (May 2011) 7.

<sup>11</sup> According to the Institute for College Access and Success report titled, *Student Debt and the Class of 2010*, the class of 2010 graduated with an average of \$25,250 of debt, and faced an unemployment rate of 9.1 percent. According to the Project on Student Debt, students graduating in 2012 will average \$29,000 in outstanding loans, which, with interest, could approach \$40,000.

<sup>12</sup> The Sloan Consortium, “Going the Distance: Online Education in the United States” (2011).

<sup>13</sup> *Ibid.*

<sup>14</sup> *Ibid.*

<sup>15</sup> *Supra* note 10.

<sup>16</sup> U.S. Department of Education, “Evaluation of Evidence-Based Practices in Online Learning: A Meta-Analysis and Review of Online Learning Studies” (Sept. 2010).

<sup>17</sup> Bryan C. Hassel, Emily Ayscue Hassel, Frederick M. Hess, Tamara Butler Battaglini, Matt Haldeman, Eleanor Laurans, Paul T. Hill, John E. Chubb, *Educational Reform for the Digital Era, 2012*, Thomas B. Fordham Institute.

<sup>18</sup> Dan Lips, Goldwater Institute, “A Custom Education for Every Child: The Promise of Online Learning and Education Savings Accounts” (Oct. 2011).

<sup>19</sup> *Ibid.*

<sup>20</sup> *Liberating Learning*, 7.

<sup>21</sup> Ralph Haurwitz, “Texas branch of Western Governors University making mark in cyberspace,” *Austin-American Statesman* (22 Apr. 2012).

<sup>22</sup> I develop this criticism and its response in further detail later in this essay, in the section titled, “Continuing Concerns: The Loneliness of the Long-Distance Learner.”

<sup>23</sup> Haurwitz.

<sup>24</sup> *Ibid.*

<sup>25</sup> *Ibid.*

<sup>26</sup> MITNews, “MIT launches online learning initiative,” (19 Dec. 2011).

<sup>27</sup> Ibid.

<sup>28</sup> Ibid.

<sup>29</sup> Ibid.

<sup>30</sup> James Marshall Crotty, “M.I.T. Game Changer: Free Online Education for All,” *Forbes* (21 Dec. 2011).

<sup>31</sup> Ibid.

<sup>32</sup> Ibid.

<sup>33</sup> Khan Academy, [www.khanacademy.org](http://www.khanacademy.org).

<sup>34</sup> James Marshall Crotty, “M.I.T. Game Changer: Free Online Education for All,” *Forbes* (21 Dec. 2011).

<sup>35</sup> Clayton M. Christensen and Michael B. Horn, “The rise of online education,” *The Washington Post* (11 Oct. 2011).

<sup>36</sup> On the growth of K-12 online learning in Texas, see James Golsan’s “Virtual Education and the Future of Texas Education,” Texas Public Policy Foundation (Mar. 2012).

<sup>37</sup> The Sloan Consortium, “Going the Distance: Online Education in the United States”(2011).

<sup>38</sup> Ibid.

<sup>39</sup> Allan Bloom, *The Closing of the American Mind: How Higher Education Has Failed Democracy and Impoverished the Souls of Today’s Students* (New York: Simon & Schuster, 1987: 117-118).

<sup>40</sup> Aristotle, *The Politics* 1252b1ff.

<sup>41</sup> The Attic Greek *oikeios* derives from the Greek *oikos*, which translates as “household.” *Oikeios* translates as “belonging to a house or household affairs.” It also carries the sense of “intimate” and “intimacy.” Moreover, *oikos* is the root of the word “economics,” which originally meant “the management of the household.” When one considers the distance between the meaning of “economics” then versus now, one gains a better appreciation for the loss of intimacy concomitant with technological progress.

<sup>42</sup> On a political level, various Left-leaning critiques of online learning place the asserted lack of social interaction within a general critique of “corporatizing” education. See, “Why Inefficiency is Good for Universities,” *The Chronicle of Higher Education* (27 Mar. 1998); Nicole Smith, “In Defense of the Traditional Classroom: An Argument Against The Move to Online Classes” (15 Dec. 2011); David Noble, “The Future of the Digital Diploma Mill,” *Academe* 87:5 (Sept./Oct. 2001).

<sup>43</sup> Susan Patrick, “How Online Learning Can Increase Opportunities for Students,” International Association for K-12 Online Learning, presentation at the American Legislative Exchange Conference (2009). Cited in Goldwater Institute, “A Custom Education for Every Child: The Promise of Online Learning and Education Savings Accounts” (Oct. 2011).

<sup>44</sup> Ibid.

## About the Author

**Thomas K. Lindsay, Ph.D.**, is director of the Foundation's Center for Higher Education. He has more than two decades' experience in education, including service as a professor, dean, provost, and college president.

In 2006, Lindsay joined the National Endowment for the Humanities (NEH) staff as director of the agency's signature initiative, We the People. He was named Deputy Chairman and COO of the NEH in 2007.

He has published numerous articles appearing in some of the world's most prestigious academic journals, including: *American Political Science Review*, *Journal of Politics*, and *American Journal of Political Science*. In recognition of his scholarship, he was made the 1992-93 Lynde and Harry Bradley Resident Scholar at the Heritage Foundation in Washington, D.C.

Lindsay received his B.A., *summa cum laude*, in Political Science. He went on to earn his M.A. and Ph.D. in Political Science, with a focus on political philosophy, from the University of Chicago.

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