THE NEW ENGLAND JOURNAL OF HIGHER EDUCATION



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When Less Is More: The Role of Small (Really Small) Colleges In Today's Educational Marketplace = KAREN GROSS

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A Culture of Shared Knowledge = JUDY BAKER

Digital Textbooks: A Student Perspective = NICOLE ALLEN

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EDITOR'S MEMO

New Technology, Old Problems in the Classroom

few semesters ago, *Time* magazine did an insightful cover story on the Multitasking Generation, a high school demographic that is increasingly dependent on (read: consumed by) digital technology. "They e-mail," reported the magazine. "They IM. They're glued to their cell phones and their iPods. They write their history essays with chat rooms open and the TV blaring. What is all this digital juggling doing to the brains...of the multitasking generation?" (March 27, 2006) There are a few names for this cohort, Digital Natives and Millennials among them.

Although a career journalist, I have taught in journalism programs at Emerson College, the University of Missouri, Boston University; and, currently, at the E.W. Scripps School of Journalism (Ohio University). Reading the *Time* story from an educator's point of view I discerned eight key traits among these young people:

- They are compulsive.
- Their attention is often divided.
- They lead highly scheduled lives.
- They are good at finding and manipulating information.
- They tilt toward visual rather than print media.
- They are skilled at analyzing visual data and images.
- They demand clarity, simplicity, and identifiable good and bad guys.
- They like quick reads.

Accordingly, to capture their attention as educators, we must provide plenty of choices, be brief, clear, and present easily accessible information preferably enriched with visuals.

However, no matter how we modify our teaching methods, the multitasking student misses something in the classroom. One cannot listen to a lecture or participate in a discussion while emailing friends or shopping online. Multitasking (which has turned two evening hours of homework into five in many instances, according to *Time*) is not productive in the classroom.

At the beginning of each semester students — many wearing earphones — stroll into my classrooms toting iPods, cell phones and laptops. They quickly learn that all digital devices must be **off** during class, not in sleep, vibrate or silent mode, **completely off**.

I formulated these rules after numerous encounters with students text-messaging, e-mailing, browsing the Internet during class — and looking surprised when I inquired, "What are you doing?" I recall one student who asked if he could sit in the back row and use his laptop. Sure, I said. After all, this is journalism. Laptops are weapons of mass communication. At the end of the semester, the student was startled to learn that he would have to submit a copy of his class notes as part of the final grade. There was little to hand in. I learned later that he had been playing video games, not taking notes.

A class is a covenant — an understanding between teacher and student — that digital technology can undermine. Also there is the not-so-little matter of academic honesty. Many of us have stories to tell of how cell phones with digital cameras or open laptops with Internet access made cheating a breeze in our classrooms.

In this issue, we draw your attention to our "Going Digital" forum on ever evolving digital technologies and their implications for educators and learners. But, reporting in from the classroom, I would like to add that while everyone on campus benefits from these new technologies, some familiar problems remain — with a digital spin.

John Brady is acting editor of The New England Journal of Higher Education. *E-mail: brady@nebhe.org*.

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SHORT COURSES

Housing Prices Jump, Young Professionals Don't

New England colleges and universities awarded more than 176,000 degrees in 2006, about 6 percent of all degrees awarded in the nation. But can these graduates afford to buy a home and remain in the region?

The New England Public Policy Center at the Federal Reserve Bank of Boston reports that housing prices in New England jumped by 85 percent between 1995 and 2005 and almost doubled in greater Boston, compared with a U.S. average of 56 percent. While incomes have not grown commensurately, the report — titled Can Young Professionals Afford to Buy a Home in New England? — states that the median young professional household in New England earned 14 percent more than its U.S. counterpart in 2005, and most young New Englanders are still able to afford their own homes.

There is some concern that professionals in certain careers will be unable to afford a median-priced home as many metropolitan areas have become less affordable in the past eight years. In addition, potential migrants to New England often cannot afford to purchase a home and have chosen to live and work elsewhere. The report's income and housing price comparisons do not take into account the quality of housing and public schools available, proximity to jobs or commuting and utility costs. Still, compared with other locations, Boston and Cambridge remain more affordable than San Francisco, New York City and Seattle.

Pressing on Against a Pressing Problem

Wheelock College, in partnership with The Delores Walker Johnson Center for Thoughtful Leadership at ATLAS Learning Communities, is addressing the challenge of educating black male students. Both organi-

.....

zations believe the education of black male students has become the most pressing problem in American public education.

In October, Wheelock hosted Nobel Peace Prize-winner Archbishop Desmond Tutu and 400 young people from 27 Boston middle and high schools at a youth symposium to explore how efforts to build peace, forgiveness and reconciliation can overcome cycles of violence and retribution in Boston and beyond.

Nationally, homicide is the leading cause of death among African-American 10- to 24-year-olds, according to the Centers for Disease Control. "Last year, in Boston alone, six children under the age of 17 had been slain by the first week in October, leaving us to wonder if we have lost a future president, peace activist, preacher or poet," said Wheelock College president Jackie Jenkins-Scott. Massachusetts Gov. Deval Patrick, Boston television personality Liz Walker and Judge Richard Goldstone, a major force in ridding South Africa of apartheid, joined Tutu and Boston students to explore the power of reconciliation at the symposium.

As a follow-up, from January through May, Wheelock College faculty and staff partnered with all 27 schools attending to support students in creating peace projects. Wheelock has also added a college-level course for high school and college students titled Bridges to Hope: Changing the Social and Academic Outcomes of the Youth of Boston. "Nationwide, enormous disparities in achievement levels and graduation rates exist, and black males are the most vulnerable population," added Jenkins-Scott. "These are the types of initiatives we believe demonstrate to our youth in both word and deed that we hear them, value them, support them and want to collaborate with them to surmount the cycles of violence we all find so reprehensible."

Education's Multi-Billion Dollar Impact

The New England Association of Schools & Colleges (NEASC) issued its 2008 Economic Impact Report in June. The report details the positive benefits derived from the spending of New England's accredited public and private schools (K-12) and higher education institutions. Collectively, those sectors had an economic impact of nearly \$114.7 billion in fiscal year 06. This is a jump from the previous study that found these institutions to have an economic impact of more than \$93.4 billion in fiscal year 04. (NEASC's study is based on the latest fiscal year for which audited school financial records are available.) Of particular note is the economic vitality of New England's accredited higher education institutions which, on their own, had an economic impact of nearly \$100 billion in fiscal year 06. The NEASC study provides otherwise hard to assemble information that encompasses the entire K through 20 spectrum. The full report is available at www.neasc.org.

Correction

Figure #33 on page 51 of the Spring 2008 *Trends and Indicators* section of *NEJHE* incorrectly reported that 686 students from Norwich University studied abroad in 2006. The correct number of Norwich University students who studied abroad in 2006 is 30. With approximately 1,958 undergraduates, Norwich sends slightly more than 1% of its students abroad. To download the corrected table, visit http://www.nebhe.org/nejhe/fig33.pdf.

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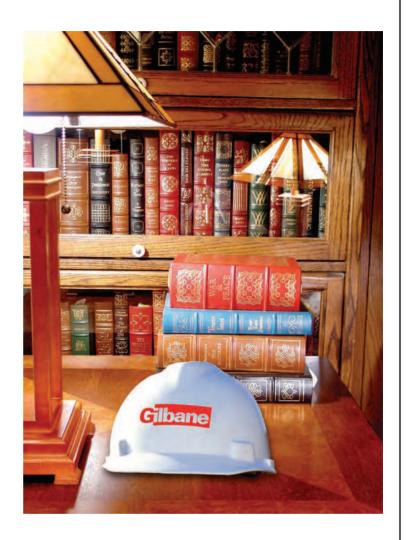
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Summer Reading for Educators

MICHAEL K. THOMAS

hether for the intellectual enrichment of faculty and administrators, or to stem students' learning loss, the "summer reading list" is common at all levels of education. This issue of NEBHE's *New England Journal of Higher Education* has your summer reading list in mind. It includes focused, accessible and engaging articles to prime the thinking of educators and policy makers as the school year approaches.

Readers may be familiar with Beloit College's annual "Mindset List," which attempts to capture the worldview of the 18 year-olds soon arriving on campuses, describing cultural and historical reference points that define their experiences, values and assumptions.

The "Forum" section herein has a similar objective. More than ever before, incoming students are immersed in new technologies that alter how knowledge and information are generated and distributed. This is an era of unprecedented "openness" and collaboration, driven by mobile and Web 2.0 technologies and by social media.

Some educators point to unfulfilled predictions of transformation by e-learning technologies as proof of the immutability of universities and lecture-based instruction. Yet, traditional models of "dispensing" knowledge increasingly differ from the interactive information acquisition habits of many students.

So what do these students and technologies mean for teaching and learning?

First, educators have a responsibility to better understand incoming students' attitudes, media habits and social interactions. Moreover, leaders should engage faculty, staff and students in a rigorous inquiry into the issues, opportunities and challenges that Internet technologies and social media present — and explore potential applications in collaborative, studentcentered teaching and learning.

Second, we must challenge our assumptions about this new generation of learners. For example, the assumption that students' immersion in Internet technologies, social media and virtual reality decreases engagement in extracurricular and other activities is not supported by the data. In fact, The Pew Internet & American Life Project found that students with the most technology-based social media activities demonstrate the highest levels of extracurricular involvement.

Similarly. many regard the acronym-based and abbreviated shorthand employed by young people in instant messaging and social media interactions to signify the demise of grammar, spelling and articulate expression. Pew's research suggests, however, that students do not view such means of expression as writing at all. In fact, they consider quality writing to be an important skill for education and future success.

Third, college and university leaders must foster substantive dialogue within higher education — and with K-12 education — regarding new and critical skills required for students to succeed in education, industry and society. Specifically, we must address, at all levels of education, the 21st Century



Skills of information literacy, media literacy and ICT (information, communication and technology) literacy. Further, as the Partnership for 21st Century Skills suggests, we must integrate such into the teaching of basic subjects such as English, geography, math and the sciences.

Beyond preparing students to succeed in a technology-dependent and information-based economy, these new literacy skills are critical to the future of higher education. While every institution and most course syllabi remind students of academic honesty policies and of the crimes and punishments of Internet-enabled plagiarism, these are insufficient to our time, place and pupils.

As students bring interactive technologies collaborative and inclinations to the classroom, K-12 and higher education must move beyond the "Thou Shalt Nots" of cheating and provide students with critical intellectual habits and literacy skills needed to navigate the oceans of information at their fingertips — and to lead meaningful, productive and well-examined lives. Moreover, a willingness to learn by both teacher and propel learning and American higher education to new heights.

Happy summer reading and autumn learning adventures.

Michael K. Thomas is interim president and CEO of the New England Board of Higher Education and publisher of The New England Journal of Higher Education. E-mail: mthomas@nebhe.org

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Higher Ed Responds to the Digital Generation

JOAN MENARD

Today's young people were born into the Internet era and live a life saturated by digital media. They use iPods, laptops, video games, text messaging and other tools on a day-to-day basis for entertainment, communication and, we hope, to support their studies. A 2005 Pew Internet & American Life study reported that 87 percent of twelve to seventeen year-olds use the Internet and 51 percent go online daily. We can assume those figures are even higher today.

Educators at all levels must keep up with the digital world inhabited by a new type of learner whose worldview is often developed through surfing the Web, instant-messaging, and online activities like video games or social networking sites like Facebook and MySpace. A 2005 Henry J. Kaiser Foundation study revealed that many young people are avid multi-taskers and engage in all of these activities simultaneously.

Higher education has responded to the digital generation. Colleges and universities in New England and beyond use MySpace, Facebook, YouTube, blogs and instant messaging to recruit students and to keep them engaged after they are admitted. Once enrolled, students use campus-wide wireless Internet and their campus Website as a portal to services, online course content, and more.

In the classroom and lecture hall, faculty and students are using these tools to communicate, educate and collaborate. At UMass Dartmouth, for instance, Professor Brian Glyn William, a leading expert on terrorism and Middle East warlords, last year blogged throughout a trip to Afghanistan keeping his students and anyone with access to the Internet up to date with first hand accounts of life in that war-torn country. The College of Visual and Performing Arts is using Facebook and MySpace to stay connected to its students, faculty, and alumni 24-7; and the math whizzes at the Kaput Center for Innovation in Mathematics Education keep a public wiki filled with discussions about how to teach math in ways that excite K-12 students.

Exciting things are happening at the community college level as well. At Bristol Community College in Fall River, Mass., faculty in human services use embedded video and YouTube in the classroom and on their online course space. Video plays a role in the college's therapeutic massage program as well. Each lab is videotaped and uploaded to the online learning space where students may review techniques before working with clients in the clinic. A real-time e-learning system has made it possible for a Bristol Community College history professor to run her course from home while recovering from surgery. The technology enabled her to work during her recovery, establish a relationship with her students and engage them using real time audio and video.

Institutions are disseminating content in new ways and to a wider audience — making courses and syllabi available online for anyone to access regardless of whether they are students, individuals looking to enrich their lives through learning online, or professors from other institutions



seeking to augment their own teaching and curriculum. New England institutions — including Wellesley College, MIT, Gordon, Bowdoin, University of Maine, University of Massachusetts Amherst and Yale make material available via iTunes University. These podcasts include information about campus activities, alumni events, conferences, lectures and readings.

Not all young people are savvy users of these tools and technologies, however. A digital divide remains. Blacks and Latinos are less likely to have computers and Internet access at home. A 2005 National Center for Education Statistics study showed that about 54 percent of white students use the Internet at home, compared with 26 percent of Hispanic and 27 percent of black students. Learning resources outside of school are also narrow for students without Internet access at home. They are often hobbled in their efforts to research school assignments, explore college possibilities or simply explore worlds different from their own. Being technology-ready is indeed a component of being college-ready. It is up to all of us to work to level the digital playing field for today and tomorrow's students.

Joan Menard is chair of the New England Board of Higher Education. She is a Massachusetts state senator representing the First Bristol and Plymouth district. She was also a Massachusetts state representative and has served in the legislature for 28 years. E-mail: Catherine.Donaghey@state.ma.us

Achieving the Dream: State Policy Changes for Community Colleges

Lessons from a multi-state, multi-year initiative

MICHAEL COLLINS AND LARA K. COUTURIER

he American higher education system considers itself a primary avenue to opportunity. As providers of broad access to postsecondary education, community colleges are arguably the most vital organ in that pulsing system. But there is a growing acknowledgment that access alone is no longer enough. Achieving the Dream: Community Colleges Count is a national initiative focused on helping more community college students succeed. Achieving the Dream firmly embraces and supports the critical role that community colleges play in U.S. society. The initiative also recognizes that community colleges could be doing more to help students succeed and meet their educational aspirations. The initiative is primarily focused on increasing success outcomes for students who have historically faced significant barriers to reaching their higher education goals, including students of color and low-income students.

Achieving the Dream began in 2004 with five states and funding from the Lumina Foundation for Education. The initiative has added new states, colleges and funders every year since, and now includes 79 community colleges in 15 states and four Texas universities. In New England, both Connecticut and Massachusetts are involved (entering in 2005 and 2007, respectively). The other participating states are Arkansas, Florida, Hawaii, Michigan, New Mexico, North Carolina, Ohio, Oklahoma, Pennsylvania, South Carolina, Texas, Virginia and Washington.

Institutional change is the primary focus of Achieving the Dream. Participating colleges commit to building a "culture of evidence" among administrators, faculty, and staff, meaning that decisions about programs and resources are based on rich data about student achievement. In addition to helping the colleges enhance their data capacity, resources are leveraged to help colleges develop and implement unique strategies that can be used to improve student success, such as creating study skills courses and learning communities. A number of partner organizations work together to assist the community colleges in their efforts, supporting the colleges in everything from conducting research on student outcomes to setting priorities and guiding data analysis.

But institutions cannot go it alone. Thus, a robust multi-state policy component, led by Boston-based Jobs for the Future, augments the colleges' efforts and spreads successful institutional practices from participating colleges across the states. The long-term goals of the policy work are to make success among community college students an explicit public policy goal; to create a policy culture that routinely uses evidence on student outcomes in decision-making; and to identify and implement specific policy changes that can promote improved outcomes for underprepared students in community colleges.

As a first step, initiative participants collaborated to identify the most important policy levers for driving institutional improvements and dramatically improving success for community college students. Each state is implementing a policy action agenda to develop new or to redesign existing policies in these areas.

- A clear public policy commitment to improving student success in the community college;
- Data and performance measurement systems that support informed decision-making and create a strong data-driven accountability system;
- Student success initiatives, including developmental education innovations;
- Improved alignment between K-12 and postsecondary education and two- to four-year colleges; and
- Need-based financial aid that adequately supports community college students.

Some of the highest-impact policy developments have been in the area of data and performance management. Echoing long-held concerns that current U.S. Department of Education Intergrated Postsecondary Education Data System accountability measures lend themselves more to four-year institutions than to community colleges, a sub-group of seven *Achieving the Dream* states has collaborated to develop and test alternative measures that better reflect the community college experience. For example, the group is testing and tracking intermediate benchmarks that are predictive of final success outcomes, such as the percent of students passing math and English "gateway" courses. In the spirit of ensuring that the initiative can be helpful to a wide audience, the group has identified the key features of a strong data and performance management system and designed an assessment tool for states that want to develop similar data capacity.

As "student success" gains traction as a higher education mantra around the nation, a number of states have also used the initiative to affirm their commitment explicitly to student success. For example, in the Connecticut Community College System, *Achieving the Dream* goals have been endorsed by the Council of Presidents and have been embedded into the system's strategic plan so that all colleges across the system are focused on using data to improve outcomes. The Virginia Community College System is using the initiative as a way to focus attention, resources and action to reach performance goals set in the system's strategic plan, *Dateline 2009*.

Achieving the Dream states are also exploring strategies to reward colleges for improving student outcomes, not just for increasing enrollments. In one innovative approach, the Washington State Board for Community and Technical Colleges is currently implementing the Student Achievement Initiative, a performance-based incentive system that rewards colleges for getting students through a set of empirically identified intermediate benchmarks, or "momentum points," that are predictive of a successful final outcome. Calling for a new "Compact with the State," the Texas Association of Community Colleges proposed incentive funding and support for developmental education innovations based on Achieving the Dream principles. The compact, though not yet funded, has laid the foundation for a statewide conversation about how to fund community colleges differently to increase student success.

Other milestones include the state of New Mexico's securing \$97 million in need-based aid since 2005, and Connecticut increasing access to need-based aid by centralizing certain financial aid processes, enabling institutional aid staff to be more aggressive in getting eligible students to apply for aid. Virginia has created financial incentives lowering upper-level tuition for community college students who earn an associate degree and transfer to four-year institutions. Both Connecticut and North Carolina have streamlined their placement assessment policies by choosing specific assessment instruments to be used and identifying common placement cut scores on those assessments, thereby increasing the consistency and clarity of the systems' expectations for entering students. /See Common Placement Standards, page 16.]

As these examples demonstrate, the states have cast their nets wide, and made changes large and small. Some of these ideas predated the initiative; others have stemmed from the collaboration and conversations of *Achieving the Dream*. In that context, what have the initiative's early years revealed about changing state policy to be more supportive of student success and institutional change? It's too early for definitive results, but here are some of the most important themes and lessons learned thus far:

- 1. State and college interaction provides important synergy and compelling evidence of the need and motivation to act. The focus, collaboration, and resources of *Achieving the Dream* are creating a result that is greater than the sum of the ideas, resources, and political will of the individual states and colleges involved in the effort:
- 2. The conversation about student success is becoming far more common, routine and integral to the priorities of colleges and state systems;
- 3. Policy work can be fragile. It takes time, and sometimes slides backward with changes in leadership, with budgetary challenges, and with new legislative priorities. But as the earlier examples indicate, there has been progress; and
- 4. States greatly value the opportunity to share strategies and tactics, to learn with and from each other, and to adapt what has been successful in one state to the realities of a different state. The initiative has fostered a spirit of cooperation rather than competition.

States that wish to redesign their policies in ways that can increase student success do not have to start from scratch. The experiences and lessons of the Achieving the Dream state policy work are captured in a set of tools that can help states that wish to adopt similar policies. The policy framework assessment tool, which specifies high-leverage policies that can promote student success within the Achieving the Dream policy levers, is a great place to start. State policy decision makers can assess their existing policy environment for strengths and weaknesses by answering a series of questions gleaned from the Achieving the Dream experience. The tool can help states identify gaps and set policy priorities. States that combine their policy development efforts with the development of robust data and performance measurement systems are in the best position to improve student success by benchmarking outcomes and leveraging the lessons of the highest-performing institutions across their respective states.

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The Achieving the Dream Web site offers a variety of resources for those interested in student success. For briefs on policy issues, a quarterly newsletter, names of participating organizations and colleges, further examples of policy changes, and to use the assessment tools, please visit www.achievingthedream.org.

Common Placement Standards: A Strategy for Student Success

MICHAEL COLLINS

spirations for college are at an all-time high, but too many young people and older returning students do not have the academic skills for success in college. About six of 10 recent high school graduates across the nation take at least one remedial education course. But many students who need remedial courses find ways to avoid them or of those who do enroll, few complete their remedial courses and go to college-level courses that count toward a degree. This has devastating consequences for all students, but the impact is most dramatic on students of color and low-income students who have historically fared more poorly in reaching their higher education goals.

Perhaps what is most unsettling, however, is that these negative consequences might be avoided. There is evidence that students who enroll in and complete their developmental education sequence do as well as students who enter college-ready. No doubt a strong developmental education curriculum and effective teaching are critical to success. But states also need a policy infrastructure that systematically identifies students who need developmental education and ensures that they enroll. States also need a data and performance measurement system to monitor progress.

To move in that direction, *Achieving the Dream* states, in collaboration with Jobs for the Future, have identified a policy framework specifying high-leverage state policies that can promote student success in community colleges. Assessment and placement policies have emerged as high-yield activities to improve services to academically underprepared students. While each participating state has taken a unique approach to the placement policy options in the framework, they are increasingly moving toward standardizing assessment instruments and placement cut scores as a strategy to increase student success.

Connecticut is the most recent Achieving the Dream state to develop common placement standards across all community colleges. The Connecticut Community College System is implementing a legislative mandate from the state's general assembly in January 2007 to review placement policies and establish statewide common standards. By autumn 2008, all students entering community colleges — except those who have demonstrated college readiness on the SAT or ACT will be assessed with the same college placement test and held to the same standard for entry into college-level courses. This is in sharp contrast to the previous policy environment where the standards and

Placement Policy Options	Yes	Νο
Are students required to take placement test?	Ark., Conn., Fla., Hawaii, Mass., N.C., Ohio, Okla., Va., Texas	Mich., N.M., Pa., Wash.
Does the state require specific tests?	Ark., Conn., Fla., Hawaii, Mass., N.C., Ohio, Va., Texas	Mich., N.M., Okla., Pa., Wash.
Does the state specify which students are exempt?	Ark., Conn., Fla., Hawaii, Mass., N.C., Ohio, Okla., Texas	Mich., N.M., N.C., Pa., Va., Wash.
Is there a common statewide place- ment cut score?	Ark., Conn., Fla., Hawaii, Mass., N.C., Ohio, Okla., Texas, Va.	Mich., N.M., Pa., Wash.
Are students required to enroll in or complete developmental education within a specified time period?	Ark., Fla., Okla.	Conn., Hawaii, Mass., Mich., N.C., N.M., Ohio, Pa., Texas, Va., Wash.

placement procedures varied from college to college, creating barriers for students trying to understand entrance requirements and trying to move within the system.

Connecticut's effort to close the gaps in the differences in placement standards comes at a time when growing numbers of the state's population — particularly low-income, racial and ethnic minorities and immigrant groups — are seeking admission to community colleges. Thus, instituting common placement standards will help the system to address the needs of incoming students from groups that have historically not been well served by higher education.

Additional research is needed to better understand the impact of common placement standards on student success, but the *Achieving the Dream* experience suggests that such standards enhance states' ability to send clear signals to entering students about what is required for success while enhancing the states' capacity to track outcomes and make adjustments that can increase student success.

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When Less Is More: The Role of Small (Really Small) Colleges in Today's Educational Marketplace

KAREN GROSS

s the president of a truly small private liberal arts college (we currently have approximately 450 students), I regularly reflect on our size and its implications. Like institutions many times our size, we need a faculty with expertise in multiple disciplines, an active and engaged student life program, and the crucial resources to maintain and grow our infrastructure. In spite of these very real challenges, a compelling case can be made for the value of small colleges in today's educational landscape.

Let me begin by noting that there is no single model for a quality liberal arts education or the sustainability of small colleges. That said, "small" needs to mean something of distinctive value. Small colleges are not simply skinnieddown versions of larger colleges and universities.

In his best-selling book, *Deep Economy*, Bill McKibben comments on the benefits of "small" education. Smaller institutions, he argues, resemble farmers' markets — you get wonderful and quality seasonal food from people you know and trust. But, you cannot get everything there that you may want precisely when you want it.

Given personal preferences and differences among us, we need both large universities and small colleges — just as we need both supermarkets/mega stores and farmers markets/niche boutiques and everything inbetween. So, what are those benefits of small colleges that justify and support their continued role on the college landscape? Let me identify four such benefits.

1. Personalization

While people enter college for many reasons, traditional age college students (17 - 23) see a college/university as the place to experience independence — often for the first time. It is where the choices students make — good and bad — are theirs alone, and the consequences — good and bad — are theirs to bear.

Everyone knows the consequences of too much freedom, of course. Students can fail to connect with their peers, professors, college staff, and athletic coaches. They can miss classes without being noticed.

To be sure, students seeking anonymity can find it within all institutions. But it is harder to both *find and maintain* anonymity within smaller institutions

because these institutions can more easily counteract anonymity with initial and ongoing personalization. This personalization is what distinguishes smaller educational environments.

On a small campus, when things are working well, students become known — and quickly. People say hello to them by name when they walk down the halls. Professors realize when students are not in class and reach out to find out why. Slipping through the cracks is not, by and large, an option at a small institution. Small campuses can build and sustain trust among those within the institution.

I recently started monthly dinners at our home, for instance, inviting ten students, two faculty and two staff, all randomly selected. A faculty guest overheard one student on the cell phone with her mother as she approached our front door. "Yes, Mom, really. I am having dinner with the president. Yes, the real president. No, I did not do anything wrong. Call you later." (I wish I could have heard that later conversation.)

2. Choice

Large colleges and universities offer abundant choices. But, for some students, all of this choice creates the opposite of opportunity; it creates paralysis. As Barry Schwartz remarked in his book, *The Paradox of Choice: Why More is Less*, choice not only takes time and energy, but it can also create self-doubt and dread. With so many choices, some students cannot identify what they want to do; they cannot find their niche. They cannot

Large colleges and universities offer abundant choices. But, for some students, all of this choice creates the opposite of opportunity; it creates paralysis.

identify the programs in which they will excel. They cannot thoughtfully determine how to distinguish one opportunity (academic or social) from another.

Fewer choices does not mean sacrificing the quality of the choices; excellent choices remain — just fewer of them. The excellence can take many forms, and small colleges can and should be innovative. I remember telling a president at another university last January that we were introducing a new project-based first-year course by fall. That would be impossible, he said at his institution; it would take several years just to get the idea through the faculty. It's the difference between turning around a cruise ship and being a windsurfer.

3. Navigation

We make all sorts of assumptions about students' capacity to figure things out. We assume they know how (or can determine how) to register for classes, solve day-to-day problems (like lost keys or a lost meal card) and seek help when they are floundering academically or personally or even when they are physically or psychologically ill. We assume they can create opportunity on their own.

At the student newspaper or student government, first year students in many universities are at the back of the line, waiting and watching until an opportunity presents itself.

While some students can do this well, others may fail at these tasks. Indeed, the newness of the college or university environs can unsettle the most stable recent high school graduate. Other students, most particularly students whose educational and family experiences are not so privileged, may struggle. Traditionally, the attitude seems to be: they'll eventually figure things out, and there is a real value in floundering and finding one's way. I am not so sure.

I have been reading Ron Suskind's A Hope in the Unseen, the amazing story of Cedric Jennings who progressed from an inner city high school in Washington, D.C. to Brown University. During orientation, he lost his temporary ID and since he did not know how to get it replaced, he went without food and bought what limited food he had with the money his mother gave him. Then, he tried to get his permanent ID but he did not have a photo ID to prove who he was (a driver's license was not in his repertoire). That became another hassle. When Cedric was choosing classes, he approached a student employee in the bookstore to determine what classes were full only to be humiliated when another student employee answered sarcastically, "Maybe the registrar knows." One obviously would need to know there is a registrar and what a registrar does in order to approach that office.

A small college's personnel can both be sensitive to these issues and take the time needed to help students learn to navigate. This starts with the recognition that navigation is an acquired skill, and small colleges can, as part of their mission, teach those skills — which will also be helpful in the workplace or in graduate school. Often, we also assume that if we explain things once (whether during orientation, in written materials, or on the Web), students will get it. But, many students are overwhelmed. The simplest tasks are hard in the beginning. Forget asking for academic help in a difficult course like anatomy and physiology; just getting enough sleep, purchasing books, settling in with a roommate and arriving to class on time are challenging enough.

4. Early Engagement

In institutions with large student populations, it is easy for students to lose connections and then fail to progress. Vulnerable students (socially, academically, first generation college) are also at greater risk. This means that the most vulnerable students both fail to get a degree and incur considerable debt in the process. With the rising costs of education, this is a real problem. I have dubbed this the "debt without diploma" phenomena.

Consider these examples. At larger institutions, participation in athletics is largely limited to recruited athletes. At the student newspaper or student government, first year students in many universities are at the back of the line, waiting and watching until an opportunity presents itself. Unfortunately, for many students, early engagement and participation is precisely what they need — indeed, it will be their anchor to windward, their pathway into the benefits of the classroom. While small colleges cannot claim by any stretch to graduate all of their students, small colleges — really small colleges — can create opportunities for student engagement early and often in their lives within the institution.

One of my favorite students is succeeding because he can become co-captain of an athletic team as a sophomore. He keeps his grade point average up so he can play. He avoids too much partying as it risks his ability to participate in sports. He even helps his teammates with schoolwork so they can play. As he expressed to me, "Academics do not drive me; my sport does. And without sports, I would not be in college." He has a GPA of over 2.5, and I sense an appreciation for academics is creeping onto his horizon.

Small colleges cannot pretend to be everything to everyone. They need to find their niche, identify the things they do well, and not be apologetic for their limited selection. But, for some students — including those who are the most vulnerable — small colleges offer the best opportunity. They provide an environment that enables students to feel self-confident, to sense self-worth, to reach success. They need to feel the college is behind them, leading them to new places. They need to know they will be seen and heard. They need the structure. They need the tour guides. That is precisely what small colleges can provide.

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Stemming Summer Learning Loss

Many New England children lack the resources to access camp, travel and other activities, resulting in "summer learning loss" that can have lifelong implications.

NICHOLAS C. DONOHUE AND BETH M. MILLER

ne long-held assumption about New England is that the level of intellectual capital in the region will help ensure future prosperity and security. Many assume that by utilizing traditional methods in traditional locations, we will prepare the current generation to become tomorrow's postsecondary learners, workers and parents — the conventional wisdom being that if we invest wisely in current education structures, the next generation will pay society back through a lifetime of productivity and responsible citizenship. Never completely accurate, this assumption is actually less true today than ever.

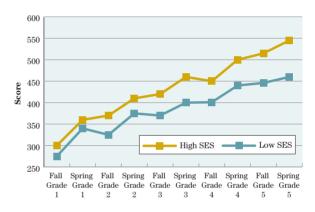
With today's global economy and constantly evolving technology, we need to change how we prepare learners for success. Part of this process is to expand our notion of when and where learning happens. With their esteemed role in the region, our higher education institutions can and must play an integral part in this expansion.

What does it really take to shape a generation of well-rounded young people who will support their families, strengthen their communities, and uphold the values of a civil society? New insights about when and where learning takes place reveal the connection between a child's summer experiences and his or her success in school and beyond. In so doing, the research underscores the tremendous untapped potential of the summer months to improve academic achievement and to level the playing field for all of our children.

Some of the differences in student academic achievement — often referred to as the achievement gap — can be linked directly to what is actually an opportunity gap in summer enrichment opportunities. Children from families with financial resources receive the additional learning provided by camp, travel, lessons, and other activities during the summer months. Far too many New England children lack the resources to access these opportunities, however, and as a result suffer from what we refer to as "summer learning loss."

What's also striking is the particular conclusion that a number of researchers have arrived at: that children in all socioeconomic groups are learning at nearly the same rate during the school year, and that differences in achievement between poor and middle class children are rooted in the inequities that young people experience outside the schoolhouse door. In Figure 1, data from the Baltimore Beginning School Study led by Johns Hopkins researchers reveals that the gap in achievement grows not during the school year but rather over the summer. It's a profound finding that can have lifelong implications for learners.

Figure 1: Verbal Scores, California Achievement Tests, by Socio-Economic Status (SES) and Season



Adapted from Alexander, Entwisle, and Olson, 2001

Although much of the research on this subject focuses on children in elementary and middle school, the Beginning School Study followed its original sample group of Baltimore public school students to age 22. The study found that as much as two-thirds of the differences among students in rates of participation in academic tracks in high school, dropping out of school, and completion of four years of college could be traced back to summer learning loss that occurred during elementary school.

While findings in these studies should not distract us from certain other inequities — access to quality early education is one example — it should cause us to broaden our thinking to consider placing stronger emphasis on learning that takes place outside traditional classrooms.

The evidence is growing and the conclusions are the same — the summer months can no longer be ignored. We cannot shut off the faucet of learning for two months or more and expect to have enough learners achieving at levels necessary for future postsecondary success. The point is amplified when you consider that, in the global economy, we need to maximize the number of learners achieving at the highest levels.

The question those of us in New England must now ask is as clear as the need is urgent: How can the region's higher education community expand its role in addressing summer learning loss?

Many New England colleges and universities currently reach out to communities of underserved learners and those efforts are important and should, of course, continue. These institutions are also uniquely positioned to provide the resources and gravitas that

If we know that summer learning increases a young person's chances at postsecondary success, then our postsecondary institutions are a natural fit to become more involved. If college-ready students are the goal, involvement in summer learning is a must.

could expand knowledge around the importance of summer learning. Despite years of research on summer learning loss, most educators know very little about the critical impact of summer experiences on school performance. To start, summer learning loss could be widely included in the curricula as we educate the next wave of teachers and school administrators. Information about summer and the opportunity gap, as well as promising solutions to stem learning loss, should be integrated into courses designed to prepare teachers and administrators at all levels.

Higher education institutions might also encourage and aid in the placement of college work-study students in summer programs to provide mentoring, tutoring and enrichment activities to those in elementary school. Not only would programs benefit, but work-study students — including education students — would also gain experience working with diverse populations, exactly the kind of experience that is often lacking in today's young teachers.

The most important service colleges and universities could provide might be to increase and expand research around issues surrounding summer learning. Efforts to better understand parental work schedules, the resources of community service organizations and the effect of those resources on outcomes and any opportunity gap would be real a contribution to the field. So too would be a better-developed picture of how to replicate the rich learning environments experienced by many middle class children with the intentional academic support needed by some children. We must quicken the pace at which we explore and uncover issues around program content, staffing, and financing. The opportunities are boundless, and the economic and civic needs are deserving of the urgent attention of the brightest minds in our higher education community.

The community's involvement in — and support of summer programs would be mutually beneficial. Colleges and universities often find themselves using far too many of their resources on remediation. These institutions may ultimately be better served by supporting summer learning and thus helping students arrive on campus with the skills and knowledge necessary for success. By some estimates, two out of every three teenagers who are old enough are unprepared for life after high school. If we know that summer learning increases a young person's chances at postsecondary success, then our postsecondary institutions are a natural fit to become more involved. If college-ready students are the goal, involvement in summer learning is a must.

Truly capitalizing on the higher education community's increased focus on summer learning might also result in a less direct, but profoundly important, long-term benefit. Through these types of integral roles, New England's colleges and universities would help validate the importance of summer learning, and in the process, help to expand the conversation about where, when, and how learning happens. Normalizing the idea of summer learning could ultimately lead to innovation

Normalizing the idea of summer learning could ultimately lead to innovation regarding school design and the definition of "school time." If that happens, we will be that much closer to a watershed moment: the necessary, profound re-evaluation of our K-12-to-postsecondary continuum.

regarding school design and the definition of "school time." If that happens, we will be that much closer to a watershed moment: the necessary, profound re-evaluation of our K-12-to-postsecondary continuum.

If we wish future generations to be economically and civically engaged, we need to take different approaches to how we educate, and we need to do so now. Establishing a more flexible idea of learning that includes a focus on summer is logical and crucial. With the strength of New England's higher education community behind the plan, summers of educational enrichment are entirely possible.

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Opening Universities in a Digital Era

The beginning of the end of the classroom as we know it?

JOHN PALFREY AND URS GASSER

ust like our students, most information is born digital today. Information, regardless of topic, is created, stored and shared in digital form. No one in higher education has determined the full implications of the shift from an analog world to one in which the analog and digital are converged. The promise and the perils associated with these changes are just beginning to take shape. Universities must begin taking advantage of the opportunities and heading off the biggest dangers associated with this digital revolution.

Digital Natives have a very different relationship with information — the building block of "knowledge" that educational institutions seek to impart — than their predecessors a generation ago. Digital Natives were youngsters when the DVD replaced the VCR, if they had been born at all by that point. Digital Natives are a subset of what has been called the millennial generation, born after 1980, with both access to digital technologies and the skills to use them. Research, for them, is more likely to mean a Google search rather than a trip to the library. As university students, they are more likely to Ask Jeeves, or to turn to another friend who happens to be online, than they are to ask a reference librarian for guidance. They rarely buy a print newspaper; they graze through copious amounts of news and other information online. But make no mistake: In the process, they are doing a lot of learning, even if the process seems unfamiliar.

Digital Natives are accessing information, expressing themselves, and learning in new, digitally inspired ways — sometimes good, sometimes not so good. Psychologists, neuroscientists, educational theorists, and other types of experts are focused on understanding these differences and figuring out how to deal with them. Some very thoughtful teachers and schools are doing worthy experiments that we ought to track — so that we can build upon them when they succeed and learn from them when they fail. for nearly a decade made many of its journal articles freely available online. In 2005, the Duke Law Library created a free, online repository for faculty works. In 2008, the Harvard Law

Digital Natives are a subset of what has been called the millennial generation, born after 1980, with both access to digital technologies and the skills to use them.

We need to think like scientists about this issue, to study the results as they come in and react to what we learn. We need to find ways to take advantage of these changes, rather than seeking to resist them.

Opportunities

First, we ought to commit to putting our own scholarship into accessible digital formats that young people are likely to access. Second, we should tap into the way that young people are accessing rivers, as well as oceans, of information. Third, universities ought to encourage the use of new technologies by young people to connect to one another and to ideas across cultural and geographic lines. Fourth, we need to be open to and to support the kinds of experimentation that faculty members are doing on their own. It is in the success or failure of these experiments that we will see clearly the most attractive futures for education.

Open Access

Universities should commit to make the work of their faculty available freely on the Internet. There is a nascent movement for "open access" to scholarly works that offers great promise in terms of extending the reach of our research and meeting students where they are looking for information. The Duke Law School, for instance, has School faculty voted unanimously in favor of a mandatory (opt-out) policy to make scholarly works freely available online, following the lead of Harvard's Faculty of Arts and Sciences a few months before. This commitment to sharing scholarship freely online makes sense not just in terms of reaching other scholars around the world and in terms of ensuring preservation of our scholarship, but also in terms of reaching our own students who are often turning to online search engines before they look to specialized research databases.

Access to Rivers as well as Oceans

Digital Natives experience the vast ocean — and many rivers — of potentially relevant digital information at their fingertips in ways quite different from previous generations. Take, for example, the way in which they interact with news. They rarely read *The New York Times* or their local paper coverto-cover over coffee in the morning. They don't rush home to hear the news read by Katie Couric. They get news and information through some kind of high-tech osmosis over the course of a day. They dip into rivers of information that are flowing by.

Static sources of information books and databases, for instance remain essential teaching and research tools. They are like oceans. In our classrooms and our libraries, we should learn to provide access to *rivers* of information, not just oceans, and teach the new skills needed to analyze information that comes in these formats. Increasingly, online "channels" of information are available to teachers, researchers, and students alike. Whether through Weblogs, wikis, specialized RSS feeds, and whatever formats come next, specialists are offering timely, accurate information about topics that we work on in higher education.

The ability to sort through the extraordinary amount of information available in these formats requires new forms of analysis and facility with new research tools. These skills include the ability to perform critical analyses of sources, to triangulate among multiple sources on the same topic, to balance input from multiple types of information (such as Wikipedia, Encarta, and Encyclopaedia Britannica). Reference librarians as well as classroom teachers have a crucial role to play to help students access these rivers and to make sense of them in the educational process.

As a related matter, universities should play a leadership role in preserving the digital heritage of our students. Students are creators as well as consumers of information, and reliable digital archiving will not happen without affirmative efforts. This to expand the horizons of Digital Natives; so, too, do reliable online news sources, such as Global Voices Online. In the best case, sites like hi5

Static sources of information — books and databases, for instance — are like oceans. In our classrooms and our libraries, we should learn to provide access to rivers of information, not just oceans, and teach the new skills needed to analyze information that comes in these formats.

archiving effort will include finding ways to preserve records of these rivers of information, just as we seek to preserve books for posterity.

Connecting Across Cultures

Digital Natives are making connections with other young people across cultural lines using online technologies. Consider the growing success of hi5, a social network geared to the global youth culture, now among the top 20 most trafficked Web sites in the world. In the past year, hi5 has grown to more than 60 million registered users across North and South America, Europe, and Asia. The premise of the site is to join people across cultures. The idea is to "break down location barriers" to friendships. Social networks online have the promise and Global Voices, combined with face-to-face initiatives like exchange programs and school-year-abroad, could help promote cross-cultural understanding and strengthen networks of people who span diasporas.

Thinking Like Venture Capitalists

Since no one yet has found the answer for how best to adapt to the changing mode of learning, universities ought to do what venture capitalists do in times of upheaval: support experimentation by innovators in the knowledge that this approach will yield large returns over time. Individual faculty members who believe in the power of information technologies are undertaking experiments that will guide us to what will

Digital Definitions

Blog — A blog (an abridgment of the term Web log) is a Website, usually maintained by an individual, with regular entries of commentary, descriptions of events, or other material such as graphics or video. Entries are commonly displayed in reverse chronological order. Mashup — In technology, a mashup is a Web application that combines data from more than one source into a single integrated tool; an example is the use of cartographic data from Google Maps to add location information to real-estate data, thereby creating a new and distinct Web service that was not originally provided by either source. RSS — A family of Web feed formats used to publish frequently updated content such as blog entries, news headlines, and podcasts in a standardized format. RSS makes it possible for people to keep up with Web sites in an automated manner that can be piped into special programs or filtered displays.

Social Media — An umbrella term that defines the various activities that integrate technology, social interaction, and the construction of words, pictures, videos and audio. Social networking sites like Facebook and MySpace; wikis; multimedia sites like YouTube; microblogs like Twitter and social bookmarking sites like Digg are examples of social media.

Web 2.0 — A term describing the trend in the use of World Wide Web technology and Web design that aims to enhance creativity, information sharing, and collaboration among users.

Wiki — A collection of Web pages designed to enable anyone who accesses it to contribute or modify content. Wikis are often used to create collaborative Websites and to power community or organizational Websites.

- The Editors

work and what will not in the future. At Rice University, the Connexions project is an important step toward making open educational resources available to the world, as is MIT's OpenCourseWare. At Harvard Law School, our colleague Jonathan Zittrain has developed teaching tools that offer enormous promise in terms of what to do with Internet connectivity in the higher education classroom. Teachers across many disciplines are using technologies to encourage online creativity and teamwork, crucial skills for students entering the workforce. These types of initiatives point toward new directions for reaching students and improving their digital literacy skills, often while making more scholarship and teaching materials available more broadly in the process.

Risks

The powerful new skills set that many Digital Natives possess does not come without its dangers, too. For instance, students who multitask constantly during class — a nice way of saying "doing e-mail while the teacher is talking" - are not participating as fully in learning the material or the skills being imparted by the teacher. Students who flit from source to source, without making it through an entire sustained argument, may never grasp the full picture of a topic. These and other very real risks — several of them have already been researched in greater depth are best mitigated through traditional teaching measures, such as assigning and testing comprehension of longer works, and through sometimes requiring laptops to be closed for the duration of certain classes or in certain settings. Technology should be used in the classroom, and by faculty in their research, only where it enhances pedagogical and research goals. Technology for its own sake makes no sense.

From an educational perspective, the gravest danger associated with the age of Digital Natives is the digital divide and its impact on learning. As scholars like Henry Jenkins and Eszter Hargittai have argued, this divide is best characterized as the "participation gap" between those students who have access to these technologies and the skills to use them and those who do not. This gap separates the students in rich countries from those in many poor countries. But the gap exists within rich countries, too. As we seek to take advantage of the terrific opportunities presented by digital technologies and the advanced ways that young people are using them, we need to be cognizant of the divides within our student populations and take steps to close those gaps.

Conclusion

The digital era brings with it farreaching changes. These changes can and will be good for society, on balance, if we are able to look down the road and around corners and plan ahead accordingly. Those of us in higher education have an enormous role to play during this transition. Much turns on whether we are able to seize the right opportunities and to mitigate the greatest harms associated with the ways that Digital Natives are interacting with information, institutions, and one another.

John Palfrey and Urs Gasser

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The website enables users to search for careers that best match their interests. There are descriptions of multiple careers and the tasks involved, average salary, and the education and/or training required.

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Using Social Media to Teach Social Media

HOWARD RHEINGOLD

oday's population of Digital Natives learned how to learn new kinds of software before they started high school. They carry mobile phones, media players, game devices, laptop computers and know how to use them. They know the Internet not as a transformative new technology, but as a fixture in their environment.

These young citizens are both self-guided and in need of guidance. Accordingly, the Social Media Virtual Classroom project, with funding from the HASTAC/MacArthur Foundation Digital Media & Learning Competition, These media include (but aren't limited to) blogs, wikis, RSS, tagging and social bookmarking, music-photovideo sharing, mashups, podcasts, digital storytelling, virtual communities, social network services, virtual environments, machinima, and videoblogs. These distinctly different media share three common, interrelated characteristics:

• Many-to-many media make it possible for every person connected to the network to broadcast as well as to receive text, images, audio, video, software, data, discussions, transac-

By showing students how to use Web-based channels to inform publics, advocate positions, contest claims, and organize action around issues they care about, participatory media education can influence civic behavior positively throughout their lives.

is in the process of creating an online social media classroom, detailed syllabi for teaching participatory media theory and practice, a community of practice and a series of instructional videos detailing how and why to use social media to learn about social media.

The Internet provides digital production tools and information distribution networks that have enabled people to mobilize new types of collective action. Community production and sharing of knowledge (Wikipedia), culture (YouTube, Flickr, the blogosphere), tools (free and open source software), markets (eBay and Craigslist), education (Open Educational Resources), journalism (citizen journalism) and political organization (meetups, netroots activism, smart mobs) are early manifestations of social changes that could continue to bloom as more become literate in participatory media - or could fail to take root if those literacies are available only to elites.

tions, computations, tags, or links to and from every other person. The asymmetry between broadcaster and audience that was dictated by the structure of pre-digital technologies has changed radically.

- Participatory media are social media whose power emerges from the active participation of many people. Value derives not just from the size of the audience, but also from their power to connect to each other, to form a community as well as a market.
- Social networks, when amplified by information and communication networks, enable broader, faster, and lower cost coordination of activities; participatory media can help coordinate action in the physical world on scales and at paces never before possible.

"Voice," the unique style of personal expression that distinguishes one's communications from those of others, can be called upon to help connect students' energetic involvement in forming their identity to their potential growth as engaged citizens. Moving from a private to a public voice can help students turn their self-expression into a form of public participation. Public voice is learnable, a matter of consciously engaging with an active public rather than broadcasting to a passive audience. It is an important and beneficial learning outcome, and it is also fundamental to democracy.

The public voice of individuals, aggregated and in dialogue with the voices of others, is the building block of "public opinion." When public opinion has the power and freedom to influence policy, it can be an essential instrument of democratic self-governance. Deliberation is only one important part of public discourse. Investigation, advocacy, criticism, debate, persuasion, and politicking are also important. With citizen journalist communities like Assignment Zero and citizen news critic communities like NewsTrust, YouTube political debates, netroots bloggers and organizational Meetups, the tools for revitalizing democracy are widely available. What is needed at this crucial time is not just basic knowledge of how to use digital tools, but also widespread knowledge of what these tools mean.

By showing students how to use Web-based channels to inform publics, advocate positions, contest claims, and organize action around issues they care about, participatory media education can influence civic behavior positively throughout their lives.

Participatory media literacy is necessarily a hands-on enterprise, requiring active use of digital media by students; for this reason the Social Media Virtual Classroom syllabus will involve student use of multiple online media in their exploration of the syllabus texts, and a video blog will provide instruction and real world Moving from a private to a public voice can help students turn their self-expression into a form of public participation. It is an important and beneficial learning outcome, and it is also fundamental to democracy.

examples. At the same time, knowledge of the skills needed to use digital tools is uniform but lacks a familiarity with the scientific discourse regarding community, collective action, social networks and the public sphere. Hence, the syllabus will be grounded in traditional texts from sociology, computer science, economics, and political science.

In order to give students a private, easy-to-use, flexible environment for blogging, chatting and aggregating their social bookmarks, we will use a free and open source content management system (CMS). Videos and wikis will document the complete process of leasing an inexpensive server, installing and configuring the CMS, finding and installing modules to make a social media online classroom. The videos and online resources should enable any educator or student to create a social media online classroom and put it to use.

Although a willingness to learn new media through point-and-click exploration might come naturally to today's student cohort, there is nothing innate about knowing how to apply those acquired skills to the processes of civil society, scientific or scholarly innovation, or economic production. A successfully implemented Social Media Virtual Classroom can bridge that disconnect and prepare students to participate in society as engaged and empowered citizens.

Howard Rheingold teaches digital journalism at Stanford University and virtual community/social media at UC Berkeley. An Internet pioneer, Rheingold is the author a number of books including Smart Mobs: The Next Social Revolution and The Virtual Community: Homesteading on the Electronic Frontier. The author welcomes educators to join the practice community around the social media classroom. E-mail: howard@rheingold.com.

"The Tuition Break Program was great for my education goals."



Tuition Break Alum: Edward Lawson Current Occupation: Electrical Controls Designer Degree Program: Automation and Robotics College: Nashua Community College, New Hampshire

"I had been working for about 14 years as an industrial electrical technician, and was called upon to do design and programming of automation systems. I decided to get a degree and the Automation and Robotics program at Nashua was a perfect fit.

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NEBHE's Regional Student Program Tuition Break provides a tuition discount to New England residents when they enroll at out-of-state New England public colleges and universities and pursue approved degree programs which are not offered by any home-state public colleges. The discount is also allowed in some cases when an out-of-state public college is closer to a student's home than an in-state public college.

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Admissions Tools at a Crossroads: Technology versus the Timeless

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SALVADORE LIBERTO

nrollment managers are awash in a sea of change. With each academic year, we attempt to harness the new recruitment opportunities that arise through a varying array of technologies. Since we know that each incoming class is more technologically savvy than the previous one, we work hard to keep up. Technology allows us to reach more students than ever before, given all the ways that students now choose to communicate. But, some caveats come with choosing innovation, especially if those technologies are replacing still-successful, proven methods of recruitment and interaction.

At Newbury College we are constantly attempting to utilize new media to incorporate their capabilities into our recruitment processes. Although we pride ourselves on our significant relationships with local high schools in surrounding communities, we are always endeavoring to reach beyond the region's borders and contact students from across the Northeast, the nation, and the international community. Moreover, we want to accomplish this using the most efficient and cost-effective methods possible.

The most common form of initial communication with students is an e-mail invitation to join a school's mailing list. Once the student has "opted in," colleges can send out invitations to share in specific on-campus activities, and to receive greetings from various faculty, students, and staff, thus prompting students to apply.

E-mail works in conjunction with several other media. Text messages

and Webcasts are becoming more common as they replace more costly methods of delivery, like mailing bulky view books and the requisite mail flow that follows. Of course, another one of the most useful technology-based recruitment media is the college Website.

The Website is the first place students and families go to learn more about a "product." If the Website is not well organized, students will not find what they need and they will leave without responding to a call to action.

The Website is the first place students and families go to learn more about a "product." A college Website serves as a window into campus life; it sets a tone for the school. Since the Website is also a portal for current students, alumni and faculty members, visitors can leave the site with a good idea of current campus events, academic programs and scheduling, and the values of the college. Of course, if the Website is not well organized, students will leave without responding to a call to action. The key is designing a site wherein students can find what they are looking for. If a prospective student is planning a trip to our campus, for instance, he or she could look on our Website to check when certain events that they may want to attend are taking place. Likewise, we list the menu for our culinary school's dining room for members of the community to view before making reservations. On many Websites, prospective students can take 360-degree tours of campus.

their financial aid and, if necessary, lending options. At Newbury, once admitted, students can use our Website for most activities associated with enrollment, from applying for housing to preparing for orientation and their first semester on campus.

Some colleges use the Website to

list admissions events and provide

prospective students with the ability

to register for those events. Once stu-

dents decide to apply to a college,

they can often use their college's

Website to find admissions require-

ments and to understand and calculate

Current Web-based technologies provide a host of opportunities for admission recruitment. A presence on social networking Websites and other interactive resources can have an enormous effect on the image a college projects, for instance - and most colleges are approaching these options carefully. Active online alumni networks and online outreach programs to prospects can demonstrate to students that we are familiar and comfortable with the newest technologies. Encouraging faculty to Webcast their lectures and to assign inventive projects, which can be reflected on the Website, sends a great message to visitors. These strategies are designed to "meet students where they live." Effective

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Technology Streamlines and Improves Recruitment — and Institutional Performance

JANICE FORSSTROM

stablished in 1965, North Shore Community College (NSCC) is one of the oldest and largest of the 15 public comprehensive community colleges in Massachusetts. Operating from campuses in Lynn, Beverly and Danvers, NSCC serves more than 10,000 students each year. One of our strategic directions is to build technology media environments that create a "technological village" — a phrase used by NSCC President Dr. Wayne M. Burton and to increase communication at all levels of the college.

In 2001, NSCC implemented a robust integrated campus portal integrating e-mail, learning management system, course resource areas and administrative services. This Unified Digital Campus (UDC) built upon SunGard Higher Education Banner ERP and the Luminis Platform, provides portal capabilities, collaboration and communication tools, and a common interface. The UDC has resulted in an integrated environment that facilitates seamless interaction for learning, teaching and administration. The result has been not only a vastly improved online experience but also an opportunity for the college to redesign its business processes.

Currently, the fully integrated portal environment includes self-service applications, a learning management system, course resource areas, content management, intranet with many custom paperless processes, and personal Web space available for all students, faculty and staff. Nearly all use this integrated system. It has also enabled us to follow-up and identify the potential appliants to our institution, including some 35,000 monthly visitors to our Website.

Traditionally, we collected information about 400 to 500 potential students using "recruit cards" gathered during high school visits, a very old fashioned, inefficient and ineffective process. Now we collect 3,000 to 4,000 "online recruit cards" in the same amount of time (or less), with no additional staffing. Since implementing this system, we have seen steady growth in our enrollments; our 2006 and subsequently 2007 fall credit enrollment were the largest ever — moving North Shore from the 5th largest to the 4th largest institution in our system.

Our e-recruitment application has resulted in increased communication with potential applicants, timely interventions and follow-ups, and increased constituent contact — all using an existing system that required no additional staffing or expense. To be more user friendly, we abandoned the tradition of grouping programs by academic division; instead, a new categorization system mixed programs from various divisions, integrating noncredit with credit offerings. The project, which took a year of collaboration, has resulted in a dynamic online environment that reflects how students think, not how NSCC thinks organizationally. Another successful initiative has been an On-the-Spot Events (OTSE) program and Early Acceptance events. The program has four key components:

- It allows our recruiters to hand out letters of acceptance during high school visits.
- It provides an electronic communications plan for area high school guidance counselors that encourages them to promote On-the-Spot Events for students who would normally be our clients, but are often admitted much later in the process.
- It enables concurrent processing of fall and spring applications in our service area, a change that reflects our shifting institutional demographics and the growing number of traditional-age applicants.
- A series of Early Acceptance events for students and their families promotes more information, better connections, and fosters future relationships.

As a result of our OTSE program, our acceptance numbers are higher and we have better information earlier on our first-time/full-time student cohort for retention. By accepting students earlier, we are able to develop better advising options to counsel them much sooner and more thoroughly on academics and finances before they arrive on campus. As we continue our communications initiatives, we are experimenting with Web 2.0 aspects that students expect from us. For example, the college consciously decided to maintain an institutional MySpace page to provide direct links to our homepage services and to counter the informal NSCC MySpace community that had developed on its own. This decision was pursued carefully and thoughtfully to inform our constituents with correct information concerning the college - and also to reach out to students where they communicate, not just where we think they should be in the online world.

Our future projects include integrating a prospect portal and further advising enhancements for retention. Shifting our paradigm from what *we* consider best to what our *potential and current students* expect began with our implementation of an integrated campus portal. We feel this culture change positions us well with our stakeholders, and not only provides improved customer relationship management, but also demonstrates the results in measurable institutional performance.

Janice Forsstrom is vice president for administration and finance at North Shore Community College. E-mail: jforsstr@northshore.edu

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enrollment managers make sure current students assist with these kinds of communication. I learned a long time ago that students love to hear from other students.

For students without the time or resources to visit campus, Web-based chatting can be a great option that enables them to get a feel for campus life and to provide interactivity as part of the application process. Some colleges use video conferencing as another alternative to interview students from afar. Increasingly, colleges post video content of events and other activities for students who are unable to attend. Admissions staff at some institutions maintain updated blogs to describe to applicants where they should be in the admissions process. As a complement to that, good "ole-fashioned" e-mail remains a popular medium to keep in touch, and our counselors are very busy pounding out many messages during the recruitment cycle. In this era of "do-not-call," e-mail has in many ways replaced the telephone. Often the most effective communications with students are the instantaneous ones - by cell phone, instant message, or text messaging. We are finding that many students are less intimidated by the prospect of communicating with admissions staff in a more "removed way" through text messaging or instant messaging. This new iteration of young technology users is more comfortable typing than talking.

The downside of today's technologies is that we begin to see them as ends in themselves, yet nothing can replace the personal contact that occurs when students and admission representatives meet face to face at a college fair or during a campus visit. How do you replace meeting other applicants, current students, or sitting in on a great class? Many in my field believe that technology is the answer to solving all recruitment dilemmas. Build it and they will come. Not so fast. This is not a space race, where the most advanced Website or recruitment program lays claim to the best students. Paper still matters, as parents weigh in on the admission and enrollment processes, perhaps more than ever. Colleges and universities remain bastions of education and development, both made more possible by the riches of personal interaction.

At the end of the recruitment process, what does this technology — Facebook, blogs, Website videos — attempt to proffer? An in-person experience. Today, we can communicate faster and with more specificity than ever before. We can reach hundreds of thousands of prospective students. Of course, so can the competition.

Each of us still grapples with positioning our institutions so that our mission comes across as unique, our people special, and the outcomes of our educations compelling. To the extent that college enrollment still means having a real experience on a real campus with real buildings and real people, the processes that students use to discover and make these choices should incorporate as many of these "real" (read: nonvirtual) experiences as possible in the admission process. Colleges are three-dimensional entities. Let's do what we can to keep it that way.

Salvadore Liberto is dean of admissions and vice president of enrollment at Newbury College. *E-mail: sliberto@newbury.edu*

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The OpenCourseWare Story: New England Roots, Global Reach

STEPHEN CARSON

n April, representatives of more than 200 universities from around the world gathered in Dalian, China, to move forward their efforts to create a global body of freely accessible course materials spanning both cultures and disciplines. These institutions have committed to freely and openly sharing on the Web the core teaching materials — including syllabi, lecture notes, assignments and exams — from the courses they offer to their enrolled students. Through the OpenCourseWare consortium, universities from Japan, Spain, Korea, France, Turkey, Vietnam, the Netherlands, the United Kingdom, the United States — plus dozens from China — have already published the materials from over 6,200 courses. In a world of increasingly restrictive intellectual property laws and intensifying competition to provide for-profit Web services, this movement stands in stark contrast to prevailing trends. The story of this OpenCourseWare movement illustrates how novel thinking and a commitment to addressing global challenges can produce remarkable results.

MIT OpenCourseWare

The OpenCourseWare movement has its roots in New England. The concept emerged in 2000 at Massachusetts Institute of Technology where then-President Charles Vest charged a faculty committee with answering two questions: "How is the Internet going to change education?" and "What should MIT do about it?"

A Culture of Shared Knowledge

Developing a Strategy for Low-Cost Textbook Alternatives JUDY BAKER

he open educational resources (OER) movement encourages the creation and sharing of free, openlicensed, high-quality learning content for community college courses to replace publishers' costly copyrighted textbooks. Open textbooks are freely available, under an unrestricted license such as Creative Commons Attribution 3.0 to download from Website repositories to share, modify, redistribute, or print.

The Community College Consortiumfor Open Educational Resources (CCCOER) is a joint effort established in 2007 by the Foothill-De Anza Community College District, the League for Innovation in the Community College and dozens of other community colleges and university partners to develop and use OER in community college courses. In March 2008 the William and Flora Hewlett Foundation awarded \$530,000 to Foothill-De Anza Community College District in Los Altos Hills, California and the CCCOER to plan and pilot the Community College Open Textbook Project for one year. Partners involved with the project include: Connexions at Rice University, Monterey Institute for Technology and Education, Institute for the Study of Knowledge Management in Education, University of California Office of the President, Flat World Knowledge, and California State University's Digital Marketplace.

The primary goal is to identify, create and/or repurpose existing OER as open textbooks and make

them available for use by community college students and faculty.

CCCOER conducted a survey of 1,203 faculty from 12 community college districts and 28 colleges across the country about their attitudes and practices with regard to open educational resources. The findings indicate a large gap between those interested in using and willing to use OER in their classes (91 percent) and those already using OER (34 percent). In order to address this gap, the CCCOER is offering training and support. For example, a self-paced introduction to open educational resources tutorial is available at the Connexions Website.

A wealth of unpublished learning materials languish in the relative obscurity of isolated college campuses and faculty offices. The CCCOER hopes to provide a means for faculty to share their knowledge via an open textbook portal Website to be launched in the fall. The CCCOER Website (cccoer.wordpress.com) provides resources about open textbooks, training, membership, and campus advocacy. Community colleges are invited to join the 60 plus colleges that are already CCCOER members in support of the use of open textbooks.

Judy Baker is dean of Foothill Global Access at Foothill College in Los Altos, California, and director of the Community College Consortium for Open Educational Resources. E-mail: bakerjudy@foothill.edu These questions were put to the committee at the height of the dot-com bubble, when a number of MIT's peer institutions were already launching high-profile distance learning ventures. It was widely expected that the committee would recommend a similar approach for MIT.

The committee found they were unable to develop a business model that would allow MIT to compete successfully in the online environment, however. MIT is a relatively small school, with approximately ten thousand students and a thousand faculty. MIT is also very residentially focused, with a strong emphasis on interactive and hands-on learning across the institute. Because it would be very expensive, and probably detrimental to the curriculum, to convert these residential materials to online materials for wide distribution, the committee found itself without a clear answer to the questions posed by President Vest.

In addition, the faculty were seeking an approach that would address the growing pressures faced by educational systems around the world as more students competed for limited educational resources. At this point the committee decided that they might be able to take what MIT does best residential education - and combine it with the Internet's strength - wide and low-cost distribution of content — to generate a significant global benefit. Rather than creating expensive new materials to support online learning, why not use the Internet to distribute the course materials that MIT was already creating for classroom use?

The faculty proposed the concept, which they dubbed OpenCourseWare (OCW), in the fall of 2000. President Vest recognized the power of the idea immediately. He began seeking funding and initiated a series of discussions within the MIT community about the concept. By April 2001, the Andrew W. Mellon Foundation and the William and Flora Hewlett Foundation had committed to funding the initial phases of the program, and consensus had emerged from the MIT community that the Institute should publish materials from all courses offered. The project was announced on the front page of *The New York Times* on April 4, 2001.

MIT moved quickly to build a team to execute the project, and launched a proof-of-concept site with materials from 50 courses in September 2002, which generated an overwhelmingly positive response. Since then, MIT has published materials from approximately 400-500 courses annually. Today, the MIT OpenCourseWare site (ocw.mit .edu) contains virtually all of MIT's curriculum, including the syllabi and reading lists from 1,800 courses, notes from more than 15,000 lectures, 9,000 problem sets, and 900 exams. The site also contains 25 courses with complete video-recorded lectures, and numerous complete texts, simulations and animations, samples of code and other learning tools.

Response has far exceeded expectations. As of April 2008, more than 22 million individuals from around the world have come to the OCW site. Translations of OCW content by other organizations have been visited by an additional 18 million individuals. The site has proven to be a useful resource for educators at other institutions, who are about fifteen percent of the OCW audience, and to students at other schools, who comprise an additional thirty percent of OCW visitors. The big surprise to the MIT community was that fully half of the visitors to the site are not affiliated with a university at all, but are instead a mix of working professionals keeping their skills sharp, individuals enjoying the opportunity to broaden their horizons, adults transitioning back in to formal education, and other independent learners.

With the complete MIT curriculum on the site, the OCW team has turned its attention to updating course materials and developing new services on top of this unique resource. The first of such services was launched in November 2007. *Highlights for High School* (ocw.mit. edu/highschool) lists around seventy introductory courses with content an advanced high school student might find approachable; further, the portal maps more than 2,600 individual video and print learning resources from the advanced placement curricula for physics, calculus and biology; and finally, the portal links to OCW materials selected to inspire the study of STEM (science, technology, engineering and mathematics) subjects, including engaging demonstrations and competitions.

The OpenCourseWare Consortium

As remarkable as the MIT OpenCourseWare story is, it is fast becoming a small part of a much larger story. Shortly after the site was launched with 500 courses in September 2003, MIT was contacted by numerous institutions in the US and abroad who were inspired by the MIT example. The MIT faculty recognized that the OpenCourseWare concept would not truly change higher education unless it was a practice shared widely by institutions around the globe, and so the OCW team was charged with assisting other schools in launching OCW projects.

In the United States, schools with a strong sense of global mission including Tufts University, John Hopkins University (Bloomberg School of Public Health), University of Notre Dame, and Utah State University — began work on their own OpenCourseWare sites. Internationally, strong interest emerged in Japan, China, Spain and France, with coalitions of schools coming together to share their own content or to translate the MIT content. By early 2005, the MIT OpenCourseWare team invited representatives of these schools to the MIT campus to discuss the formation of the OpenCourseWare Consortium.

The mission of the consortium was established as advancing education and empowering people through OpenCourseWare. Starting with an initial group of 17 members, the consortium has expanded rapidly in the past three years to include more than 200 universities worldwide. About half of those currently have course materials available on OpenCourseWare sites that the institutions host. In April 2006, the OpenCourseWare consortium

FORUM: GOING DIGITAL

launched a portal (ocwconsortium.org) linking these sites together and providing users with a cross-site search. The body of materials available through the consortium now includes content from schools as diverse as the Open University UK, Keio University (Japan), University of Southern Queensland (Australia), University of California-Berkeley, University of California-Berkeley, University de Monterrey (Mexico), Korea University, Delft University of Technology (Netherlands), and Beijing Jiaotong University (China).

Alongside the OpenCourseWare movement, a wider movement dedicated to sharing open educational resources (OER) has emerged, making available a range of educational resources and open source tools such as the Sakai and Moodle learning management platforms, open access journals and textbooks, learning objects and more. The Hewlett Foundation has played a central role in fostering the wider OER movement, and more information about the OER movement is available on the Hewlett Web site (www.hewlett.org/Programs/ Education/OER/).

OpenCourseWare in New England

The global OpenCourseWare movement has its roots in New England, and the region promises to be a leader well into the future. New England not only boasts the flagship OCW project at MIT, but the Tufts OpenCourseWare site (ocw.tufts.edu), a recently launched OCW site at the University of Massachusetts-Boston (ocw.umb.edu/), Yale University's Open Yale Courses (open.yale.edu/courses/), and a project underway at Wheelock College. Even with these significant contributions, the potential in New England is far from tapped. As global interest in OpenCourseWare continues to grow, New England promises to be a key source of open educational material for many years to come.

Stephen Carson is external relations director for MIT OpenCourseWare and currently serves as president of the board of directors for the OpenCourseWare Consortium. E-mail: scarson@mit.edu

Digital Textbooks: A Student Perspective NICOLE ALLEN

extbook prices have steadily outpaced inflation for several decades, and are sure to increase faster with rising fuel and paper costs. Textbooks typically cost \$900 per year, about a quarter of tuition at public universities. Digital textbooks could give students much needed relief from this growing burden, but the current e-textbooks model is not the way to go.

If digital textbooks are going to solve the textbook affordability crisis, the transitioning market must be shaped by student expectations. Currently, we think of digital textbooks as e-textbooks, or digitized versions of paper copies. Every major publisher offers hundreds of e-textbooks, yet sales are a negligible part of the \$7 billion industry. Publishers mistake this for disinterest in digital textbooks, when the real problem is that their e-textbooks simply do not meet student expectations.

Books must be affordable

Students expect digital textbooks to be much less expensive, since publishers don't incur the costs of shipping and printing. However, the typical e-textbook sells for 50-70 percent of the printed copy price and expires at the end of the term. And, unlike textbooks, e-textbooks cannot be sold used to re-coup costs.

Books must be accessible

Not every student feels comfortable reading from a computer display and some do not have a computer or

high-speed Internet access. Students expect to access digital texts in a way that fits their technology and learning preferences — online, downloaded, locally printed, or a combination of all three. Some digital textbook models hold the potential to expand access to learning materials. E-textbooks, on the other hand, can only be accessed online with a password and downloading is heavily restricted. Students who prefer to read from paper find that printing is either disabled or strictly regulated, and that a hard copy still costs full price.

Students want respect as consumers

Students have no say in the textbook market. Unlike normal consumer markets, students must purchase textbooks selected by instructors, regardless of price. However, new models are emerging that give students more power as consumers. For example, Flat World Knowledge offers high-quality open textbooks online for free. Students can also purchase reasonably-priced print copies, enhanced downloads and study aids. Students expect to be treated as consumers, not as a captive market.

Nicole Allen is the textbooks advocate for The Student PIRGs and director of the Make Textbooks Affordable campaign (www.maketextbooksaffordable.org). E-mail: nicole@studentpirgs.org

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