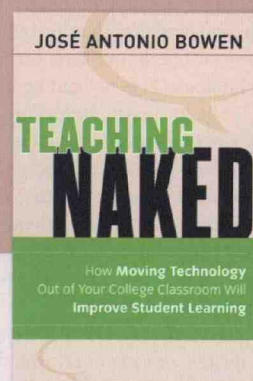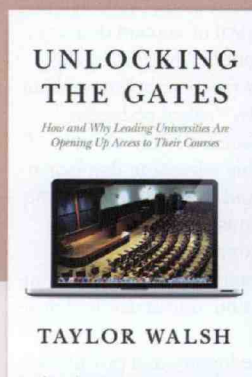# Books Worth Reading

By Mary Taylor Huber

UNLOCKING THE GATES

How and Why Leading Universities Are Opening Up Access to Their Courses

TAYLOR WALSH

JOSÉ ANTONIO BOWEN

TEACHING NAKED

How **Moving Technology** Out of Your College Classroom Will **Improve Student Learning**


Unlocking the Gates: How and Why Leading Universities Are Opening Up Access to Their Courses, by Taylor Walsh. 2011. Princeton, NJ: Princeton University Press. 320 pages. $29.95 Cloth; $29.95 eBook.

Teaching Naked: How Moving Technology Out of Your College Classroom Will Improve Student Learning, by José Antonio Bowen. 2012. San Francisco: Jossey-Bass. 352 pages. $36.00 Cloth; $28.99 eBook (175 pages).

Mary Taylor Huber is a senior scholar emerita *and consulting scholar at The Carnegie Foundation for the Advancement of Teaching. She has written extensively about changing faculty cultures in US higher education, focusing especially on the scholarship of teaching and learning. She is co-author, most recently, of* The Advancement of Learning: Building the Teaching Commons *(2005) and* The Scholarship of Teaching and Learning Reconsidered: Institutional Integration and Impact *(2011).*

Exactly how disruptive will technological innovation be to brick-and-mortar colleges and universities? The recent advent of massive open online courses (MOOCs), which enable a single teacher to reach tens of thousands of students at a time, has raised speculation (yet again) that the end of traditional higher education is nigh. For readers interested in the possibilities of technology but put off by apocalyptic prognostication, the two books reviewed here provide welcome perspectives.

Unlocking the Gates: How and Why Leading Universities Are Opening Up Access to Their Courses by Taylor Walsh examines the generation of Web ventures that preceded (and continue alongside) the MOOCs. What may come next is the theme of *Teaching Naked: How Moving Technology Out of Your Classroom Will Improve Student Learning* by José Antonio Bowen. The open-courseware projects that Walsh describes have not yet have penetrated higher education's traditional teaching core, but they are part of a larger movement of content onto the Web, which Bowen believes will
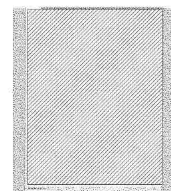
eventually transform the collegiate world, including classrooms, curricula, and institutions.

Neither Walsh nor Bowen is a disinterested observer of the technological scene. According to the jacket of *Unlocking the Gates* "Taylor Walsh writes on behalf of Ithaka S+R, a not-for-profit strategy and research service that supports innovation in the academic community." Indeed, the book's foreword is by William G. Bowen, former president of the Mellon Foundation, which has helped fund many technology projects. Among them is MIT's OpenCourseWare, one of the initiatives that Walsh discusses.

José Antonio Bowen's position as dean of the Meadows School of the Arts and professor of music at Southern Methodist University (his specialty is jazz performance and history) is not likely to conjure up the image of a new-media guru. But his Web profile notes that he has "been a pioneer in active learning and the use of technology in the classroom, including podcasts and online games." In Bowen's view, the increasing availability of mediated teaching resources, including the courseware initiatives discussed by Walsh, is making it possible to move a good deal of content delivery, practice, and community-building online, thus preserving precious classroom time for face-to-face interaction without technology. This is what he means by "naked pedagogy."

We'll start with *Unlocking the Gates*, a lively account of several high-profile projects in online education that began with the advent of the Web in the mid to late 1990s and the associated dot-com boom. Walsh consulted the extensive secondary literature on these developments; studied the grant proposals, progress reports, and Websites for each initiative; and interviewed the foundation, university, and project leaders involved.

The result is a rich portrait of the history and prospects of these courseware efforts, the aspirations and concerns of their principals, their academic content and connections to their sponsoring universities, and their contrasting business models. While the author's sensibility and vocabulary come from management (rather than, say, technology, education, or sociology), the book should be accessible to readers from a wide range of backgrounds.

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Unlocking the Gates begins with a useful orientation to the major distinctions that define the field: traditional classroom teaching, distance education over the Web, and online courseware—i.e. "initiatives in which traditional degree-granting institutions convert course materials, originally designed for their own undergraduates, into non-credit-bearing online versions for the general public" (p.1). Each has its own "value proposition" (p.4), with the first two offering degrees and/or credits for students' tuition dollars, while online courseware—at least the kind that's the focus of this book—mainly offers enrichment, most commonly for free. (It's worth noting that some of the new MOOCs offer the possibility of earning certificates, which may eventually be accepted for credit by other colleges and universities.)

Sponsoring institutions typically think of online courseware as a public good that broadens access to at least some of their educational programs while simultaneously enhancing their reputations at home and abroad. Although early ventures were motivated in part by the commercial potential the Web seemed to promise, their failure led to new efforts, supported by private foundations, to provide course (and other educational) materials online for free. Within this master narrative, however, Walsh's case studies document distinctive variants with wider or narrower disciplinary scope, greater or lesser pedagogical ambition, and more or less close connections to their sponsoring universities.

The first cases in *Unlocking the Gates* concern two early efforts that didn't survive. Fathom, a commercial venture led by Columbia University, was designed to sell courses to adults seeking enrichment. Produced by star faculty at Columbia and its array of prestigious partners, Fathom captured the imagination of the press but got few customers. All-Learn, a nonprofit consortium involving Yale, Stanford, Oxford, and (for a short time) Princeton, hoped to cover its costs from these institutions' own alumni, who were expected to pay course fees (they failed to sign up in sufficient numbers to do so).

Reading about Fathom and All-Learn will likely remind readers of the irrational exuberance (to borrow Alan Greenspan's phrase) of that dot-com era and the eagerness of elite universities not to cede the potentially lucrative e-learning market to other educational institutions, or worse, other industries (Disney!). But they discovered, as Yale 's Vice President and Secretary Linda Lorimer put it, that "people are not going to pay a lot for informal education" (p.56). More precisely, according to Walsh, "When it comes to non-credit-bearing enrichment courses offered online, free is closer to the price the market will bear" (p.54).

The next several chapters take readers on a tour of what happened afterwards: the stunning debut of MIT's OpenCourseWare (OCW) and the alternative models pioneered at Carnegie Mellon, Yale, Berkeley, and the prestigious Indian Institutes of Technology. For each, Walsh examines origins and development, content and organization, impact, and sustainability, pointing out telling contrasts and comparisons along the way.

The three most well-known initiatives—MIT's OpenCourseWare (OCW), Carnegie Mellon's Open-Learning Initiative (OLI), and Open Yale Courses (OYC)—were nurtured by substantial foundation funding, with The William and Flora Hewlett Foundation playing a lead role. Hewlett's leadership in developing the field of open educational resources (OER) began with the cultivation of these institution-specific courseware programs; subsequently, it turned to other "OER projects like open textbooks, open educational games, and uses of open content in the K-12 sector" (p.235).

As befit Hewlett's experimental aims, the open-courseware efforts it funded differ considerably among themselves. MIT OCW puts virtually all its course materials (syllabi, etc.) online, with an increasing number including video. OLI has developed only a small number of introductory courses (14 at the time of Walsh's study) in science, mathematics, and foreign languages, but they are enriched by pedagogically sophisticated assignments, assessments, and self-evaluations. OYC has created highly polished videos of Yale's most popular introductory lecture courses—when Walsh wrote, there were 25, with another dozen planned—accompanied by user-friendly course materials.

In contrast to these primarily public-facing initiatives, Walsh considers two additional efforts aimed at current college students. Webcast Berkeley (no acronym!) was internally developed and funded primarily as a study aid for Berkeley's own undergraduates, while India's National Programme on Technology Enhanced Learning (NPTEL) is a government-funded initiative that has marshaled the resources of the elite Indian Institutes of Technology to raise the level of engineering education offered elsewhere in that country.

These are all worthy resources, and Walsh's case studies are a good introduction to what they can and can't do. Of course, they only allow you in so far: They're windows on the classroom experience at MIT, CMU, Yale, or Berkeley, rather than doors.

Still, open courseware has much to offer faculty eager to see how colleagues are designing their courses, students wanting another perspective on a subject they're studying, and relatively sophisticated self-learners with interests of many kinds. Indeed, in looking up these initiatives' websites for this review, I discovered that I'd already been the beneficiary of both OYC and Webcast Berkeley, whose courses on ancient history I'd downloaded from iTunes U onto my iPod without realizing that they were part of a larger university initiative.

As *Unlocking the Gates* makes clear, however, these institutions have not gone to the trouble, nor their funders to the expense, of producing such materials just to satisfy the curiosity of other professors and students or to enrich lifelong learners' early morning walks. To be sure, public outreach is part of their purpose, but they have also have had larger philanthropic, exploratory, and practical goals.

The philanthropy comes from these elite institutions' conviction that they have something of special value to offer the world: knowledge created through their teaching pro-

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grams, not just through cutting-edge research or technology transfer. They are exploring how to use technology to make this knowledge available to the wider public. The practical part concerns burnishing institutional prestige and reputation and, whether intentionally or as a byproduct, providing enhanced service to their own students—prospective, current, and alumni.

The complexities of these initiatives are illuminated in the concluding chapter, where Walsh analyzes the variations among the seven initiatives and how their choices align with their different goals and audiences. For example, there are tradeoffs in breadth versus depth. MIT OCS and Webcast Berkeley opt for lots of courses at the cost of uneven content, limited functionality, and/or low production values; meanwhile, OYC and OLI offer far fewer courses but in richer formats.

On a critical note, Walsh observes that these initiatives have been motivated more by supply (what the institutions have to offer) than demand (what would be most useful to their target audiences). With the possible exception of Carnegie Mellon's OLI, they have also been so vague about their goals that their impact, especially on learning, has been very difficult to assess.

This may be their next big challenge. As the author argues in her epilogue, the terrain of online education is shifting rapidly. If these initiatives are to be sustained, "it will be critical to demonstrate the concrete value that projects like these can provide—either within their parent institutions or elsewhere in the higher-education sector" (p.247).

What could this value be? The highly selective institutions that have sponsored the open-courseware initiatives featured in *Unlocking the Gates* "have been the trailblazers in developing these courseware materials for the general public," but have also been "among the most reluctant to use them to reform their own pedagogical approaches" (p.260). Yet

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his transformative potential, Walsh suggests, is where their future value lies.

For example, audio and video recordings of lectures could—if posted quickly—be used by an institution's own students for study and review. Open courseware might also be able to develop more interactive features, making it a better pedagogical tool. Maybe it could ease bottlenecks in large lecture courses by allowing late registrants to follow along while waiting for seats to become available. Walsh speculates that the elite universities might even move toward creating more partially or fully online courses for enrolled students (the University of California is now exploring that possibility).

Yet while it's possible that the elites—especially financially struggling public flagship universities—will "use online courseware to expand local capacity for key courses" (p.260), the real effect may come from its "transformative use" (p. 260) in other higher-education institutions. Perhaps, she suggests, this will occur through partnerships, such as those now being explored by India's NPTEL or Carnegie Mellon's adaption of OLI for community colleges, CC-OLI.

Walsh's proposal may sound measured, compared to what one often hears from technology enthusiasts. But then everything depends on what "transformative use" might mean—an exploration that's beyond the scope of *Unlocking the Gates*.

To more fully appreciate the implications of these developments, one can turn to José Antonio Bowen's *Teaching Naked: How Moving Technology Out of Your College Classroom Will Improve Student Learning*. That title, by the way, is a little misleading. It's true that Bowen is interested in creating classroom space for interaction, discussion, reflection, and engagement. But the book—part persuasion, part how-to—spends a great deal more time on what technology offers for the design of educational experiences.

This is not ethnography, however. Yes, we see eye-popping statistics about the inroads that online education has already

made into traditional college and university settings—not to mention its use for training in corporate, military, and other government domains. Yes, there's discussion about the digital experience and expectations that millennial students bring with them to college. And yes, the book is chock full of references to existing Web resources that readers may want to explore—with an accompanying Website where you can look them up. But *Teaching Naked* is not fundamentally descriptive; it's about what educators could and should do with technology.

Bowen tells us where he's going right from the start. "At the heart of *Teaching Naked* is the seeming paradox that technology can be harnessed to enhance the widely desired goals of increased student engagement and faculty-student interaction but that it is most powerfully used *outside* of class as a way to increase naked, nontechnological interaction with students *inside* the classroom" (p. x).

The book's first section on "The New Digital Landscape" sets the scene. The second, "Designing 21st Century Courses," has chapters on the use of technology before and after class for customization, information delivery, engagement, and assessment and another on what to do in all that newly available classroom time.

Finally, "Strategies for Universities of the Future" takes up the big questions of what this new use of technology is likely to mean for most colleges and universities (the elites, as usual, get to pass Go for free). What are the implications for college curricula and campuses? What will brick-and-mortar institutions offer that the Internet cannot provide?

Bowen's scene-setting argument has two parts. First, in his view, traditional higher education's current business model is unsustainable: The price is too high, and the results are unclear. With competition increasing from for-profits and online providers and accountability measures making outcomes easier to compare, "traditional education will need to provide justification for its added expense" (p.20)—and that justification will have to be better learning.

While technology is part of the problem most institutions will face, however, the author believes it is also part of the solution. Not only are students already comfortable with electronic communication and new media resources, but these technologies also offer much that can contribute to

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better education—rich content; new learning environments; multiple points of entry to any task or topic; and tools such as Facebook, Twitter, and Skype for building virtual communities.

Most importantly, in Bowen's view, technology offers the possibility of *customization*—in particular, the kind of customization that characterizes computer games, which are (he reminds us) designed to be learned by large numbers of players "with a wide array of learning preferences and abilities" (p.52). Citing work by James Paul Gee, Bowen points out how good computer games embody learning principles that make them particularly good teachers, such as encouraging risk-taking by lowering the consequences of failure and providing players with pleasant frustration through a series of surmountable challenges.

While Bowen points to the growing number of games available for college-level learning, his main argument is that by providing "a customized but structured path through progressively more challenging learning," they provide a model for the design of educational experiences. "In other words," he suggests, "we need to make college more like a video game" (p.71).

He is serious: a whole, quite interesting chapter is devoted to research on brain development and learning that supports the importance of designing college courses and curricula with gaming's attention to carefully calibrated levels of challenge, mastery through practice, and motivation. "Empirical evidence," he argues, "confirms that the combination of high expectations and low stakes (exactly the conditions of a good video game) matter for learning" (p.93).

The chapters that follow amount to a primer on what some now call *flipping the classroom* in order to help students "learn content as a basis for discovery rather than being satisfied with receipt of knowledge" (p.103). Bowen discusses ways to use electronic communication tools for purposes beyond announcements and handouts, like showing passion for the subject, digressing or making connections, and introducing reading. He also suggests podcasts—either one's own or lectures available on the Web—for first exposure to material (Chapter 6).

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He looks at uses of technology to motivate reading; to help students apply, integrate, and reflect on knowledge; and to form communities outside the classroom (Chapter 7). There's a discussion of multiple-choice tests before class, just-in-time teaching, writing assignments and feedback, rubrics, games, and tests (Chapter 8).

The result, when combined with the use of class time for active and engaged learning? Less boredom and deeper learning for more students. "Delivering content in advance, motivating learning with multiple channels of communication, and constructing assignments that force students to prepare for class will change both your expectations and those of your students for what happens in class" (Chapter 9, p.213). Of course, there are practical prerequisites that Bowen only glancingly lights upon, like motivating faculty to try out and master new techniques, overcoming student resistance to them, and supporting faculty and students who engage in them.

Still, it's worth pursuing, Bowen argues, not just to achieve better teaching and learning in college but as a "vital strategy" for traditional higher education's "survival" (p.217). A string of analogies from other industries that have been transformed by technology, from music to books to journalism, make the point that it's only by focusing on what's special about their "educational product" that colleges and universities can maintain their value in the highly competitive environment of the "internet age" (Chapter 10).

Like live music, Bowen argues, traditional higher education offers an "experience that remains unique, varied, social, and highly customized to individual audiences" (p.231). But like live music, it will be altered by its recorded (and, in the case of college, online—think of Walsh's open courseware) alternative.

Campuses will have to balance what they can do best (bring teachers and students face-to-face) with what can be done best online (content, review, practice). In other words, higher education in traditional settings "will need to morph from a locally delivered product to a hybrid model that includes both online resources and classroom interaction" (p.242).

Bowen's final chapters speculate on the consequences this model will have for faculty work (most instructors will focus on course design and classroom interaction), higher education's "packaging units" (the degree may be supplemented

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or even replaced if employers begin to accept certificates or "badge systems" for the attainment of particular skills), curriculum (it will have to be more carefully calibrated to assure mastery of successive levels of thought), and campus cultures that can foster "risk and change" and the "integration of…different sorts of learning" (pp. 284, 285). Like video games, Bowen concludes, "everything" on these transformed campuses should be "designed to promote learning and change" (p.287).

This vision of higher education's hybrid future, suggested as one possible line of development by Walsh and developed in detail by Bowen, is radical in its embrace of ideas already familiar from today's reform literature. It's not the end of brick-and-mortar institutions. But from the perspective of the resource producers, as represented in *Unlocking the Gates*, it's a future in which teaching expertise will be highly visible and honored—just as published research is now. From the perspective of the resource users, as represented in *Teaching Naked*, it's a future in which learning will be central not just to the classroom but also to the organization of the curriculum and the culture of the college.

The more conservative side of this vision concerns the division of labor between elite and other institutions as givers and takers of online educational courseware. Still, both authors imply, that divide may eventually blur. Walsh suggests the possibility of partnerships to ensure a better fit with the needs of users. And if Bowen is right about the learning needs and preferences of millennial students (not to mention the twenty-first-century skills that will be increasingly necessary for work and citizenship), the classroom experience at top universities will eventually tilt towards the technologically hybrid as well.

The world of technological innovation stands still for no one—author, publisher, book reviewer, or reader. *Unlocking the Gates* and *Teaching Naked* are good introductions to some of the most notable and/or promising types of resources for higher education, but they are by no means encyclopedic, even for what's available today.

As for tomorrow? Will those MOOCs now offered by many elite universities, including MIT and Berkeley, be game changers? I don't know, but the history course that I and 85,999 others (yes, that's 86,000) signed up for last fall may not be so very different from the big lecture classes I took in college long before higher education went online. To be sure, this MOOC is free and has a number of interesting online features—but there will quizzes, papers to write, and a textbook (by the professors) to read that cost close to $100. C

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