T
ty years ago, in 1993, I was fascinated by a futurist prediction made by then-president of the National League for Nursing, Dr. Carol Lindeman, at a state nursing conference I attended. As I recall, she posited that in 25 years, there would be only three schools of nursing in the United States. She based her prediction on a coming revolution in technology that would make the expertise of the best three schools of nursing accessible to all students seeking to prepare for a career as a nurse. What I understood this to mean was that the knowledge content—the curriculum core—would be delivered through “distance education” technology (it was not yet called “online learning” or “e-learning,” as the World Wide Web was only just coming into existence), which was then a novel idea, or at least novel to me!

At the time, it seemed an unlikely scenario, given the nature of nursing education and its strong reliance on face-to-face teaching and the essential aspects of hands-on learning in laboratories and clinical settings. Yet, Dr. Lindeman was prescient in postulating not only a possible but probable—and perhaps even preferable—future for nursing education—probable in that the technology now makes it a potential reality, and preferable in that it offers possibilities for increasing access, decreasing cost, and standardizing quality.

We are 5 years shy of Lindeman’s timeline, but given the accelerated pace of change we are witnessing today, especially in learning technologies, her prediction may not be such a stretch. What will this mean for nursing education, for nurse educators, for our current educational structures and processes, for our students, and ultimately, for the public who benefits from our care and research? The answer to this question is well beyond the scope of these brief editorial pages. Instead, I’ll focus on what may be the most rapidly evolving innovation of our time: MOOCs, or massive open online courses.

Today, nearly half of students enrolled in higher education are taking some, if not all, of their coursework online, and this proportion is expected to grow to more than 80% by 2014 (Ambient Insight Research, 2009). A Sloan survey reported that student satisfaction with online learning is at least comparable to their satisfaction with traditional classes (Allen & Seaman, 2008). Nursing programs across the country have widely embraced online learning to supplement, and in some instances entirely replace, face-to-face classroom pedagogies, even in predominantly full-time, on-campus programs.

Initially considered a marginal disruptive innovation, online learning has become mainstream (Christensen & Eyring, 2012). But the latest, and likely to be the most, disruptive e-learning innovation is the emergence of MOOCs, whose wave appears to be building and may turn on end, sooner or later, nursing education as we know it.

Currently, there are three leading providers of MOOCs: Udacity, Coursera, and edX (“The Big Three,” 2012). Udacity, a for-profit venture founded in 2011 by Sebastian Thrun, a robotics professor at Stanford, was first on the MOOC scene, with an astounding 160,000 students having signed up for his first course on artificial intelligence. Coursera, another 2011 for-profit entrant to the MOOC movement, touts its mission as “Higher education that overcomes the boundaries of geography, time and money” (http://www.coursera.org). As of November 2012, enrollment stands at 1.8 million students from around the world, and is growing daily. The most recent MOOC entrant is edX, co-founded by Harvard University and Massachusetts Institute of Technology, whose tag line promises, “The Future of Online Education for anyone, anywhere, anytime” (https://www.edx.org/).

While seemingly more cautious than its MOOC peers—edX has welcomed only three partners to date, University of California, Berkeley, the University of Texas, and Wellesley—it’s president recently called 2012 “the year of disruption [by MOOCs] and the year is not over yet” (Pappano, 2012). That some of the country’s most elite and prestigious universities are leading this innovation speaks loudly to its potential impact—one just barely beginning to be felt.

The number of MOOCs offered to date is relatively small: nine for edX and double that number for Udacity. However, Coursera’s course list is approaching 200 and reflects the greatest diversity of subjects and the largest number of participating institutions, including a handful of international universities. (A summary of MOOCs can be found at http://www.class-central.com.)

Coursera’s offerings represent the most ambitious of the three, encompassing a wide array of disciplines such as computer science, chemistry, history, writing, and philosophy, among others.
Particularly noteworthy, however, is the array of courses that many undergraduate and graduate nursing education programs currently offer as required or elective courses, and that at least theoretically, Coursera’s courses have the potential to compete with and perhaps one day replace. Current or “coming soon” courses cover such subject areas as human physiology, pharmacology, public health, genetics, health informatics, nutrition in health and disease, the social context of mental health, health policy, clinical research, and even clinical problem solving!

Although MOOCs do not currently grant academic credit, there is growing evidence that at least a few institutions are beginning to accept MOOC certificates for credit through licensing or other credit-validating mechanisms. Given the mounting costs and simultaneous cuts in public funding of higher education, as well as the growing and lamentable student debt burden, it isn’t hard to see that MOOCs may become increasingly attractive as a viable option for universities to control labor costs and, in turn, stem the rising tide of annual tuition increases and student loan debt.

Further, given that the leading MOOC providers boast teachers who are among the best and brightest in their fields, MOOCs offer students the opportunity to learn from experts to whom they otherwise would not have access. In fact, in students’ home institutions, they otherwise would not have access to opportunities to learn from experts to whom we can only guess at.

We would be remiss to ignore the potential disruption these changing technologies might bring to nursing education as we know it. Although there will, dare I say, always be a need for face-to-face clinical instruction and mentoring as students learn to apply knowledge to clinical care, MOOCs have the potential to massively disrupt traditional didactic and institution-bound learning.

As nurse educators, we should pause to reflect on what this oncoming wave might mean for our field and what the potential threats and opportunities might be. I offer the following questions to launch the conversation:

- If nursing schools begin to license MOOCs, might there come a time when Lindeman’s prediction will be realized and the three “best” schools become the sole providers of content? What might the impact be on existing undergraduate and graduate degree programs?

- Will MOOCs threaten faculty employment or, instead, change the nature and shape of the faculty role and faculty work, and if so, in what ways?

- Can MOOCs offer one potential option for easing the current and even larger impending faculty shortage?

- Combined with competency-based testing by schools, could MOOCs decrease the time required to earn a nursing degree and thus reduce the cost of that degree and facilitate more rapid career entry?

- How might MOOCs be leveraged to increase access among low-income and marginalized students and thereby help diversify the future nursing workforce?

- What should faculty and schools do to anticipate, prepare for, and adapt to the growing availability of MOOCs, especially as current challenges are solved and quality is assured?

Coursera offers a course titled “Surviving Disruptive Technologies,” taught by an expert professor at the University of Maryland. I think I’ll sign up.

References

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