Chapter 8
How to Hollow Out an Education

John K. Davis
California State University – Fullerton, USA

EXECUTIVE SUMMARY

This case chapter demonstrates how online higher education can best function by keeping student-teacher ratios at levels where intensive instructional interaction remains possible. If economic cost savings are the prime driver in mass online higher education, one-on-one synchronous interaction between teacher and student is minimized. The core problem of mass instruction is that without quality interaction, the educational experience is hollowed out. Essential critical thinking skills cannot be learned without an experienced, engaged partner to provide feedback, qualitative assessment, and guidance. Peer and automated evaluations offer minimal benefit. The costs of online education may be lowered, but only by pushing the student-teacher ratio so high that significant teacher-student interaction becomes impossible. Thus, what makes online education economically attractive threatens to hollow out education by reducing that interaction.

THE PROMISE OF ONLINE EDUCATION

Many online courses are versions of courses originally offered in the classroom, designed and taught by the faculty who developed them there, listed under the same course name and number as the classroom version, and with roughly the same student-teacher ratio. Call these "traditional" online courses.

These are not the online courses that concern me, and they are not the ones that excite the media and inspire pedagogical futurists. I am concerned with "massive open online courses" (MOOCs) and other online courses that have high student-teacher

ratios. The MOOCs that get the most attention (such as those organized by Coursera, Udacity, or edX) are essentially traditional online courses writ large and available for free to anyone who chooses to log in—thousands, tens of thousands, potentially millions of students. Students who enroll pay nothing to watch videotaped lectures from high-profile professors at institutions they can't afford to attend. Most MOOCs resemble traditional online courses but exploit the potential of online technology to push the student-teacher ratio sky-high. Other MOOCs exploit the crowdsourcing potential of online technology, featuring content contributed by students which gets aggregated into newsletters or Websites, and enabling students to tailor the course and content to suit themselves.

These courses open a dazzling horizon, especially for students who can effectively study on their own. The courses are free, or at least potentially cheaper than traditional courses. They can deliver lectures and course design by the best faculty in the field, available anywhere in the world. Students can view lectures online more than once, pause as needed, move at their own pace, and do it all from home at a time that's convenient for them. How far can this go? Some people think MOOCs will become the new textbook, and commence a radical reconstruction of higher education. Consider this from Alex Tabarrok, professor of economics at George Mason University:

Online education replaces labor with capital, in the form of software. Online pioneer Marc Andreessen has argued that software is eating the world—if so, education is the appetizer. … What will a future "course" look like? One model is a super-textbook: lectures, exercises, quizzes, and grading all available on a tablet. The textbook's artificial intelligence routines could guide students to lectures and exercises designed specifically to address that student's deficits, and could call on human intelligence—tutors—on an as-needed basis. ("Click here to connect with a tutor; $5 for the first five minutes and 50 cents a minute thereafter.") (Tabarrok, 2013, p. 3)

Tabarrok is talking about automating teaching—the very heart of the issue I'm discussing, for automating teaching eliminates the most important kind of teacher-student interaction.

MOOCs and courses like them are starting to move into the traditional university curriculum. Some universities are considering giving transfer credit for coursework done through MOOCs. Other universities may offer huge, centrally-managed online courses of their own, though not for free; the Cal State system, for example,