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K-12 MOOCs Must Address Equity
Norman Eng

Massive open online courses, or MOOCs, the new wave of distance education offered by elite institutions like Harvard and MIT, are moving into high schools, and—contrary to what many think—that could be a problem.

Last September, the MOOC provider EdX released 26 free courses covering Advanced Placement, high school, and college-level material.

In theory, disseminating such free or low-cost instruction will democratize high-quality education in much the same way public schools are meant to democratize general education. In practice, however, MOOCs' lecture-based format, their inability to reach the most-vulnerable populations, and their low passing rates could broaden K-12 learning gaps rather than shrink them.

Politically and pedagogically, K-12 schooling is very different from higher education. There is a greater focus on inequality in the former, due in part to the compulsory nature of attendance. As such, teacher quality and instruction are critical. Elementary and secondary school teachers, especially those in public schools, are expected to motivate the most-disadvantaged and disengaged students.

The didactic, lecture-based nature of MOOC instruction, however, is narrow and may not engage traditionally marginalized students, including ethnic and racial minorities, low-income students, children with disabilities, and English-language learners—the very groups policymakers and researchers have focused on in K-12 education policy reform.

In addition, these groups tend to have less access than their better-off peers to high-speed Internet.

Only 64 percent of African-Americans, 53 percent of Hispanics, and 54 percent of lower-income Americans overall (meaning those making less than $30,000 a year) have broadband access at home, compared with nearly three-quarters of white Americans generally, based on **2013 research from the Pew Research Internet Project**.

Without universal access, MOOCs are pointless. On the good-news front: This situation is beginning to improve, as the **Federal Communications Commission increased funding** in December to prioritize support for broadband and wireless connectivity.

As it is, the nature of MOOCs attracts advantaged learners. A **2013 analysis of the University of Pennsylvania's 32 massive open online courses** found that participants tended to come from developed countries and were employed, with 80 percent already in possession of a postsecondary degree of some kind. Most students took classes to advance professionally or to satisfy their curiosity. Such findings suggest academically oriented students and those with developed habits of the mind, like the gifted and talented, would thrive in an online learning

system. Without such advantages, however, at-risk and even working-class students will require intervening support and oversight to have an equal chance to succeed.

Perhaps most disconcertingly, online courses have yet to demonstrate they can close the performance gap.

In a **highly publicized San Jose State University experiment**, minority high school students in an Oakland, Calif., charter school performed worse in online pilot classes than those who took the same classes on campus. The result reinforced research highlighting the struggles of at-risk groups in an online context, compared with advantaged students.

On a related note, African-American students, as well as males, younger students, and those with lower grade point averages, had **difficulty adapting to, or persisting in, online courses** compared with face-to-face classes, according to researchers Di Xu and Shanna Smith Jaggars of Teachers College, Columbia University.

For online courses to have any chance to succeed, developers and e-learning companies must understand the K-12 landscape. Ambitious rollouts have fared poorly, as the iPads-for-all project in the Los Angeles Unified School District demonstrated.

The previously mentioned San Jose State effort, which involved a partnership with the company Udacity, ended its MOOC experiment in 2013 because only 12 percent of high school students earned a passing grade in algebra, among other disappointing findings. These failed examples reinforce two well-worn lessons: Venture philanthropy cannot work unless students' needs come first, and how you use technology is more important than the technology itself.

Developers also need to address teacher buy-in and professional development in new ways. The novel nature of MOOCs will undoubtedly require overhauling how developers support teachers, a consideration that should make them think twice about jumping into the K-12 market.

If only certain types of learners can thrive under MOOCs, the innovation will have failed as a 21st-century technology and education platform. Its success, therefore, depends on the developers' ability to address inequality; specifically, to reach a critical mass of students that includes learners from diverse socioeconomic, racial, and ethnic backgrounds. Only then will MOOC providers be perceived as offering legitimate platforms for K-12 schools. Without such attention, the MOOC foray into K-12 will be doomed to repeat, and even exacerbate, inequalities in American education.

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