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# Disrupting Teacher Education

High costs

for brick-and-mortar

degrees create

opportunities

for online programs

**T**eachers are increasingly recognized as the most important in-school factor in student achievement, yet the quality of the country's K-12 teaching force is not up to snuff. Much of the blame has been placed on education schools, which have come under fire for failing to produce enough high-performing teachers. Both initial certification programs, which happen mostly at the undergraduate level, and master's in teaching degrees, which provide additional training to existing teachers, have only a limited impact on teacher effectiveness. There are a handful of celebrated programs, but these produce only a small percentage of total teachers.

At the same time, tuition continues to rise. Education schools have long been propped up by a variety of government subsidies, from federal support for tuition to state grants. Recent budget pressures have chipped away at these funds, revealing the true cost of these schools to students. From a societal perspective, such programs appear to be a questionable investment given the limited evidence that they, at least in the aggregate, are actually creating effective teachers.

Thus teacher preparation faces both cost and quality problems. Online teacher-preparation programs present an opportunity to change these dynamics. Innovative players are entering the space, including two that are profiled in this article: the Teachers College at Western Governors University and the MAT@USC at University of Southern California's Rossier School of Education.

by MEREDITH LIU



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## A Disruptive Innovation

Two types of innovation can move industries forward. Sustaining innovations improve existing products and services, which can then be sold at higher prices to better customers. Universities, including schools of education, have followed a decidedly sustaining pathway. As they compete to be “the best,” they enhance their offerings by recruiting more highly recognized faculty, adding more courses, and expanding cocurricular options (even if these improvements do not bolster student learning). The schools have not focused on reducing the costs of their programs, which are passed through the system and ultimately increases the cost of teachers to district customers. Given that K–12 education is facing its own financial crisis and that teacher salaries have not risen along with tuition, rising costs for education degrees may make teaching a less attractive opportunity for talented individuals.

This situation has created an opportunity for a disruptive innovation, a product or service that, instead of competing head-on with existing players, serves new customers with a cheaper, simpler, or more convenient solution than current options. Eventually, the disrupter improves to the point that it can serve the upper tiers of the market with less expensive and good-enough performance, thereby

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transforming the industry into one that has lower costs and higher quality, and is more widely accessible.

Education schools, with their high costs and stranglehold on the teacher-preparation market, are ripe for disruption, and online learning is poised to offer the mix of cost and quality required. Although online learning is not universally better than brick-and-mortar education, it is predictably improving, not only as the Internet becomes faster and more accessible to a wider group of people, but also as software and hardware complements improve. Furthermore, because online learning does not require the student and the teacher to be in the same place at the same time, it allows higher education to happen in a much wider range of places, times, and circumstances, which increases its convenience and affordability.

With more than 30 percent of postsecondary students taking at least one online course, online learning is already permeating higher education, including teacher-preparation programs.

The American Association of Colleges for Teacher Education (AACTE) surveyed its member schools, and 73.7 percent of respondents claimed to offer distance-education courses in 2010.

Fully online initial teacher-certification programs remain relatively rare because of the challenges of incorporating a required practicum, but online master’s degrees for those already certified to teach are increasingly common. For its annual university rankings, *U.S. News & World Report* identified 208 education schools that offer regionally accredited online master’s in education programs. Furthermore, online programs are gaining market share. The U.S. Department of Education reported that the four largest education schools, in terms of number of bachelor’s and postbachelor’s degrees granted in 2011, were online programs, including the University of Phoenix (5,976) and Walden University (4,878). The largest traditional education school, at Arizona State University, granted just over 2,000 education degrees, most of them through its campus-based programs.

There is a strong economic incentive driving the growth of online master’s in teaching degree programs. Most teacher contracts provide a substantial salary bump, upwards of \$10,000 per year in some cases, to a teacher who earns a master’s degree, despite the fact that on average such degrees

have no correlation with increased student achievement. This automatic increase in annual compensation makes the economics for additional education clear: the degree should be obtained at the lowest cost possible in order for the teacher to earn the highest return on the investment. Not only do online degrees generally charge lower tuition than traditional programs, but they also

have limited opportunity costs. Students do not have to stop working while they earn their degree. Thus online programs are creating faster, less expensive ways for teachers to earn salary-boosting credentials.

## University of Southern California—MAT@USC

One foray into online master’s in teaching programs is the University of Southern California’s Rossier School of Education partnership with online learning company 2U (formerly 2tor), the first program of its kind at a major research university. An advanced cloud-computing platform, developed and managed by 2U, delivers the courses required for a Master of Arts in Teaching, known as MAT@USC. As with USC’s traditional degree, graduates first earn a teaching credential in California, and then those interested in teaching out of state can either transfer their certification through interstate reciprocity agreements



IMAGES FROM RosierUSOnline.

*Courses are delivered through interactive, web-based lectures. All class participants are visible to each other via individual video feeds and can signal to the professor when they want to speak.*

or apply directly for state credentials. At present, USC degree credentials are transferable to 43 states.

From the outset, USC and 2U invested significant time and money in designing a program that would be optimized for the online environment. Courses are delivered through interactive, web-based lectures, and classes are limited to 15 students. Similar to a webinar, students sign into a live session hosted by the professor. All class participants are visible to each other via individual video feeds and can signal to the professor when they want to speak. The professor can upload PowerPoint slides and other materials during the session. Each class is archived in a video library for later review on the student's computer or mobile device. The program facilitates learning outside of class through online study groups and a customized social-networking platform for students and faculty.

Although all course content is delivered over the Internet, MAT@USC has an in-person practicum component. As in traditional master's programs, teacher candidates are required to complete 20 weeks of in-classroom training. Students do not have to come to California for the practicum, however, as USC arranges partnerships with local school districts so that candidates can stay in their own communities. Student teachers have an on-site supervisor and are also armed with video cameras, which allow them to record and upload their lessons to USC faculty, peers, and others for feedback.

USC continues to operate its traditional on-campus master's in teaching program. The online curriculum is the same as the original but optimized to fit the new delivery method. Online candidates apply through a similarly rigorous admissions process and receive an identical degree upon completion of the program. USC's goal was not to replace its existing program, but rather to grow its overall enrollment without the constraints imposed by the brick-and-mortar model. The university's success along this metric is clear: from 2008 to 2010, the USC program expanded from 100 to 2,200 degree

candidates. The online program has not cannibalized residential program enrollment, which suggests that the online program has reached a distinct population. Indeed, participants are predictably different: online program participants are older, more likely to have full-time jobs and/or be parents, and are from geographically diverse locations, including 35 different countries, and thus unlikely to have previously enrolled in a master's program for teaching.

Like other disruptive innovations, the major benefit of the program is greater convenience of consumption, both in terms of geography and time.

Despite the university's efforts to replicate the traditional program online, MAT@USC students do lose some of the learning benefits of an in-person, in-classroom experience. At the same time, the MAT@USC has worked to make innovative use of technology, which enhances the online program relative to its traditional counterpart.

So far, MAT@USC charges the same steep price tag as the on-campus program, about \$40,000 for the 13-month degree. Because students can continue in their jobs, however, the opportunity costs are significantly lower than for an on-campus program, which makes the online model a disruptive innovation from the student's perspective. Although the program is expensive at present, given the greater economies of scale of an online program, MAT@USC's costs per student will fall as it expands, making it at least possible that the price tag will drop as well.

### Western Governors University

Online teacher preparation takes a different form at Western Governors University (WGU), a nonprofit, fully online university founded, as the name suggests, by a consortium of governors from the western United States. WGU offers not only postbaccalaureate and master's programs but, unlike USC, has also tackled the challenge of creating a bachelor's degree program for aspiring teachers. WGU is home to the first fully online teacher-preparation program to receive accreditation from the National Council for Accreditation of Teacher Education (NCATE). Graduates are certified first in the university's home state of Utah but can then transfer that license to other states. All 50 states now recognize WGU credentials.

WGU is different from traditional colleges beyond its lack of a physical campus. Rather than a credit-based (e.g., time-based) system, WGU uses a competency-based model, grounded in the real-world skills and content required in

the teaching profession, to measure candidates' mastery of the content. Students pass a course as soon as they can demonstrate proficiency as measured by rigorous testing requirements delivered via an advanced assessment system. The assessment for each competency uses multiple formats, including traditional testing, portfolio assignments, and observations. As many students have significant professional experience, they can skip some course content altogether and proceed directly to the assessment. For example, a career engineer switching into teaching does not need to suffer through introductory science and math courses to become a physics teacher. Because graduation is based on competency and not on credit hours, students can spend significantly less time completing their degrees; the average WGU student receives a bachelor's degree in two and a half years.



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Teacher-preparation programs typically include subject-area content, foundations of teaching, instructional methodology, and a field or practical component. Traditional education schools provide these components in a highly integrated solution that carries high costs and little flexibility to innovate. WGU's program is modular, so it can separate content delivery from the practicum. As with the MAT@USC, students complete their demonstration teaching near where they live. WGU has developed partnerships with hundreds of school districts that serve as training sites for student-teaching sessions and works with a network of local, clinical supervisors who observe candidates. In its 2011 report on student teaching, the National Council on Teacher Quality gave WGU a rating of "poor," however, for not using a rigorous process to select cooperating teachers.

The capacity to modularize aspects of teacher education has broader implications. Teacher preparation is increasingly criticized for being too theoretical and failing to prepare teachers to

be effective in classrooms. This has led to investment in high-priced, sustaining innovations such as teacher residency programs. These programs are demonstrating promising results but are expensive. Modular programs like WGU, however, can leverage disruptive technology to deliver parts of teacher education where performance is "good enough" (e.g., content delivery), thereby permitting greater investment where it is needed (e.g., field training/student teaching).

As a fully online school, WGU has no campus and offers a significantly different experience than a traditional undergraduate university, thus appealing to a different type of student. Like the MAT@USC, WGU targets nonconsumers, as 70 percent of its students come from traditionally underserved populations, including individuals from rural communities. The average age of students is 36, and most students work

while they are taking classes, thereby saving on the substantial opportunity costs of earning a teaching degree. These students are less interested in a traditional college, on-campus experience.

Unlike USC, WGU is attractive to students because of its price tag. The school offers a flat rate of \$2,890 for a six-month term during which students can take as many courses as they want. WGU is able to charge much less by maintaining a substantially lower-cost base. Because courses are delivered over the Internet, WGU reduces fixed costs by not having to own and maintain extensive real estate and facilities. WGU also has lower employee costs, as full-time faculty members serve primarily as student mentors and neither develop curriculum nor perform research

(this also supports the school's narrow value proposition of providing professional rather than academic training). Finally, WGU offers only a select number of high-demand degrees, including education, which allows it to gain the benefits of scale from the large number of students in each program. This lean cost structure was designed from the beginning to be different from that of a traditional university.

Although the current evidence is significantly limited, initial survey data from WGU suggest that the school's performance is comparable to that of traditional education schools. WGU education program graduates have slightly higher rates of certification and employment than those attending comparison schools. Furthermore, in an initial survey of employers of WGU graduates, 100 percent of respondents believe the program prepared graduates equal to or better than other schools of education. Such unanimity raises eyebrows as to the survey's research design, but WGU is planning further study to understand how effective its graduates are in the classroom.



### Disruption in the Larger Market

The opportunity to complete a degree while working makes both the MAT@USC and WGU programs disruptive in the eyes of their students. A teaching degree is suddenly possible for many individuals who could never fit a traditional undergraduate or graduate degree program into their lives. The two programs differ, however, in that only WGU's teacher-preparation programs are disruptive to the market at large, threatening to upend incumbent players and transform the industry. Although incumbent firms, such as traditional universities, have a distinct advantage in delivering sustaining innovations, they struggle to manage disruptive innovations. This is because in an effective organization, the components of a business model—value proposition, resources, processes, and a profit formula—are tightly interlocking in a way that best serves existing customers. Because WGU began as a fully online university, it was able to develop a differentiated, low-cost business model and offer an accessible and affordable product to students. Conversely, USC has high overhead costs and requires large amounts of funding from multiple sources to survive. It can only support an online program whose margins are attractive relative to its existing product portfolio.

This constraint is particularly common for education schools given their “cash cow” status. As the schools and programs are entwined within a larger university system and not run as separate business units, resources flow to the areas that promote research prestige and away from the areas that do not, such as education. Accordingly, education schools are expected to generate more revenue than they require. The MAT@USC, while an innovative advancement in teacher preparation, is constrained from being fully disruptive to the broader university. It must keep its tuition high enough to remain financially attractive to the university, not to mention preserving USC's brand with a premium product offering.

This constraint is not unique to USC. The university business model makes it nearly impossible for any existing education school to direct resources toward a smaller, lower-margin product like an online degree at the expense of the core, on-campus offerings. This does not mean that education schools are ignoring technology; they are just ignoring its disruptive potential. Many education schools will “cram” digital technology into their existing products and deploy them as sustaining innovations rather than create a product with a lower cost structure. As has been the path in other industries, true disrupters are more likely to

come from outside the traditional system, where they are unconstrained by legacy business models.

### Looking to the Future

Because the early stages of disruption are characterized by products that are not yet good enough, incumbents tend to sneer at innovations and dismiss them as inferior. When Netflix came to Blockbuster with a model for mailing DVDs, Blockbuster's team famously laughed the Netflix team out of the room. The idea that customers who were used to getting a product instantly would be willing to wait days for a more limited selection was preposterous to the video rental giant. But as Netflix aggressively moved upmarket, it not only beat out Blockbuster on convenience and cost, but also on selection and video quality. Disruption allows the unimaginable to become the norm, and the customers are the winners.

Currently, many principals and district staff are skeptical of online-learning program graduates. And while early data

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are promising, it is too early to be certain as to the effectiveness of online teacher education in promoting student learning. With the growing awareness that traditional schools of education are failing to produce exceptional teachers, however, a national effort is under way to ensure that education schools are held accountable for the impact their graduates have on student achievement. This effort is not at odds with the potential of online learning. Online education programs will succeed if they are effective and affordable. In the years ahead, we will have the data to better understand the costs of these programs, as well as their effectiveness in training new and existing teachers.

Perhaps most encouraging, online learning in teacher preparation will make becoming a teacher possible for a broader population of candidates, which lends hope that the country's education system can attract more talent and make the profession more competitive. The future is a teacher education industry that is both of higher quality and lower cost, welcome news for the nation's students.

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