ECONOMIC VIEW

Don’t Kid Yourself: Online Lectures Are Here to Stay

The economic forces are too powerful for virtual instruction to go away after the pandemic. The important question is who will benefit financially, a Cornell economist says.

Cornelia Li

By Robert H. Frank

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Many smart people are predicting that unpleasant experiences with online learning during the pandemic will slow or reverse trends toward remote instruction. Little wonder: Aging Luddites like me, struggling to transmit our thoughts over unstable internet connections, have not been compelling advertisements for change.

After our students were sent home in March, many of us taught the balance of the semester’s classes using Zoom, Canvas and other online resources. Few of us had any experience at this, and most of us weren’t very good at it. So it’s no surprise that, just as skeptics have observed, things didn’t always go smoothly.

> **Emily Nix**
> @EmilyNix100
>
> Agree. My hypothesis is that students dislike this so much that if anything, this experience will push us further away from online teaching. I have yet to see any data suggesting otherwise. twitter.com/zackcooperYale…
>
> > **Zack Cooper** @zackcooperYale
> > Very much disagree with this take.
> >
> > One of the clearest takeaways for me from the pandemic is that online teaching is not early as effective or liked by students as in person education twitter.com/axios/status/1…
>
> 82 5:05 PM - Apr 29, 2020
>
> See Emily Nix's other Tweets

Yet skepticism about remote instruction’s future may be premature. Mostly, that’s because those of us who struggled in today’s environment aren’t the ones likely to be delivering online courses in the future.

Consider this thought experiment. Which would you choose: An online course delivered by one of the world’s most knowledgeable and charismatic instructors, supported by Pixar-class animators, award-winning documentary filmmakers and a team of in-person graduate teaching assistants? Or the same course taught in person by an average instructor reading from yellowed notes?

Different students would of course choose differently. But there is ample reason to believe that experience with the first option would eventually lead a substantial proportion of students to prefer it, even if they were charged the same amount for either approach. But because of economies of scale, the remote option would enjoy a substantial cost advantage.

As Philip Cook and I wrote in our 1995 book, “The Winner-Take-All Society,” these are precisely the conditions that give rise to winner-take-all markets. As technology has expanded the reach of the most able performers, they have been capturing ever larger shares of worldwide markets across a host of domains.

The tax-advice industry, for example, was once served almost exclusively by local accountants. Then came H&R Block, which discovered that most returns could be completed by high school graduates with only occasional assistance from tax professionals. More recently, scores of tax software programs disrupted this market. But once reviewers anointed Intuit’s TurboTax as the most comprehensive and user-friendly software, it went on to capture more than two-thirds of the online tax preparation market.

Another signature feature of a winner-take-all market is the so-called Matthew Effect. The sociologist Robert Merton coined the term, referring to a verse in the Book of Matthew: “For unto everyone that hath shall be given, and he shall have abundance; but from him that hath not shall be taken away even that which he hath.” As a leading producer expands its market share, additional revenues enable it to further refine the offering that made it a leader. The revenue from its early lead helped Intuit add the ability to process state tax returns, which extended that lead.

Sometimes the Matthew Effect is a simple matter of a particular supplier’s becoming part of a product’s identity. Daisy Ridley is clearly a talented performer, but before the director J.J. Abrams cast her as Rey in “Star Wars: The Force Awakens,” hundreds of other candidates might have seemed equally promising. Once the film became a box-office bonanza, her lock on the role was virtually unbreakable .

The Matthew Effect and related positive-feedback processes have driven some of the biggest success stories of the internet era. Google dominates search because the more queries the company processes, the more effective its algorithms become. And despite criticism and competition, Facebook dominates social media because the more members a network has, the more useful it becomes as a place for people to interact.

Similar feedback effects are poised to reshape the market for academic instruction. The move to remote course offerings had been happening slowly, fueled in part by chronic budgetary shortfalls at many colleges and universities. But because the pandemic has greatly amplified those cost pressures, it will accelerate the transition. And although the average quality of remote instruction has been low, the sheer scale of recent efforts has sped the discovery of ways to improve it.

Like tax preparation software, a large number of remote courses will compete for reviewer and student approval during the early going. And similarly, a handful of contestants will eventually be judged as best.

Economies of scale are the driving force here. Most of the costs of delivering remote courses are fixed, which means that costs per student fall sharply with volume. The cost of producing a first-rate instructional video is the same, for example, no matter how many students view it. The only additional expense of expanding remote courses would be the hiring of local graduate teaching assistants.

As the leading remote offerings are more widely adopted, the additional revenues will fuel further improvements in quality. Over time, the most successful remote courses will enjoy a growing cost advantage, since their expense per student declines as more people use them.

Remote learning won’t replace the campus experience entirely. For one thing, academic instruction isn’t the only mission served by institutions of higher learning. Students go to college in part to broaden their social networks and acquire credentials that will help them in the labor market. Many schools will survive by continuing to meet these demands.

In addition, on-campus instruction will remain for many specialized courses that are too small to support superstar remote offerings. In short, the economic forces promoting remote instruction won’t spell the end of on-campus student life anytime soon.

But major shifts are in store, ones that will entail significant benefits and costs. As in earlier winner-take-all disruptions, technologies that allow the most able producers to serve broader markets will increase the total amount of economic prosperity available to be shared by all. Left unchecked, however, they will also spawn large increases in inequality.

Whether a greater reliance on remote instruction will be a net improvement will therefore depend heavily on public policy. In past disruptions, we have essentially ignored the injuries associated with rising inequality. Our experience during the pandemic highlights powerful reasons for reconsidering that strategy.

Social solidarity makes life better for rich and poor. And when the economic pie grows larger, it is necessarily possible to distribute it so that everyone gets a larger slice than before.

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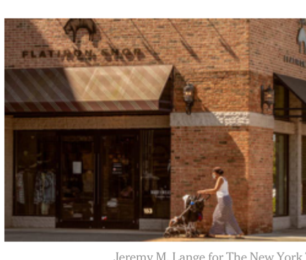

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