

TECHNOLOGY

Five Post-Pandemic Tech Trends Poised to Transform Business Education

by Tiffany Bayley, Robert D. Austin, and David Wood



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What we can expect in the New Normal

✔ **INSIGHT** | FRONTIER 20 Jun 2022

In March 2020, the Covid-19 pandemic forced business schools worldwide to move teaching online. The shift caused faculty members to try new educational approaches, some that they had not even thought of before. The months of the pandemic were, then, a period of experimentation from which new learning about business education could emerge. Some new approaches worked well. Accordingly, there is now a widespread expectation, by educators, institutions, and the press, that business education and professional development have been permanently changed, and that post-pandemic learning experiences will retain pandemic-inspired elements.

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To explore this possibility, we conducted a Delphi Study¹ to solicit views from a panel of business education experts. This research format asks questions of experts who then read, react to, and build upon the responses of the other panel members across multiple rounds. A level of stability in opinions – though not necessarily consensus or even agreement – tends to emerge as rounds unfold. Our 23 panelists included teachers known for pedagogical expertise, authors of books about teaching, and leaders in prominent publishing or technology companies, many affiliated with renowned educational institutions (e.g., Darden, IE, Imperial College, MIT) and publishing organizations (Harvard Business Publishing, Pearson, Wiley).

We chose this format because we believe encouraging thought leaders to interact, jointly synthesize, and develop collective views, might help us access more fully developed indications of trends and future directions than a survey of actual practices, which are still

in flux. The method also allows themes we did not think to ask about emerge and become the focus of follow-up inquiries. We remained open to ideas that stood out as insightful, original, or otherwise worthy of discussion, whether or not they were widely held or agreed across our panel.

Methods

The Delphi Method solicits opinions from selected experts about an industry or topic in multiple rounds, with responses shared in each round, until a level of stability in opinions is attained. Experts do not communicate during the process.

We reached out to individuals who we identified in business school publications, on business school websites, and in various other venues, based on criteria that indicated pedagogical expertise. Out of 47 we contacted, 23 agreed to participate. We conducted three rounds of surveys between June and August 2021. Most panelists (18) completed surveys in all three rounds. Questions we asked evolved, based on responses from previous rounds. We compiled lists of ideas and factors mentioned by panelists, ranked by the number of panelists who mentioned them. We asked panelists to react to rankings and offer thoughts about which factors were most or least important, and why.

After three rounds, we found ourselves with a volume of rich qualitative data that required holistic analysis. We worked independently with the raw data, then reviewed, discussed, adjusted, and validated each other's interpretive syntheses. To capture distinctive non-consensus views, we looked not only at frequently mentioned factors and issues but also sought to identify ideas or issues that seemed interesting, insightful, or original, or that seemed to merit discussion, even if they were not mentioned frequently.

Results

Our analysis identified five trends that we believe might have major impacts on management education and professional development. Most are not entirely new. Many were arguably underway before the pandemic. But in each case, the pandemic seems to

have provided a boost, by offering new evidence of effectiveness or highlighting advantages that were less than fully appreciated before the pandemic.

Trend #1: Shifting Expectations About Use of Technology Will Generate New Demands on Business Schools

Our panelists volunteered provocative thoughts about the changing competitive landscape for business education, especially shifts in student expectations that might lead to new demands on educational institutions. Several suggested, for example, that students were well ahead of faculty members and institutions when it comes to facility with technology. One observed that “learning technology is not complicated to an 18-year-old.” The implication, expressed by many of our respondents, is that the pandemic has increased pressure on educators and educational institutions to include technology in learning experiences. Students, they suggested, will expect creative uses of technology to continue and improve.

“The biggest change by far,” one of our panelists said, “is going to be demand for async/flexible/remote education instead of (or alongside) traditional classroom lectures.” Many students liked, for example, the convenience and flexibility associated with recorded lectures, which allowed them to decide when they would consume a learning experience. Panelists hypothesized that some students might learn better at times of their own choosing (e.g., those who do not do well in 8 AM classes). The ability to choose when to learn shifts control, and perhaps ownership, of learning toward students, which likely positively affects learning.

According to several panelists, new student expectations will have competitive implications for business schools. “[B]argaining power has swung decidedly in favor of the students,” one said. “Institutions will need to be more student centric and innovative to stay relevant...The cost of entry is that institutions must provide some basic ed tech related capabilities or risk closing.” Another said it this way: “Darwin has finally arrived in Higher Ed. It’s an ‘adapt or die’ philosophy now. Instructors and institutions better get on board or fade out.”

Panelists anticipated that challenges posed by these shifts would be difficult. “It’s important to acknowledge the magnitude of what now confronts us,” one panelist said. “This type of undertaking cannot be underestimated... [For faculty members] this is about their sovereignty as academics...” Another panelist, a publishing leader, remarked that academics have not proven especially adaptable, historically, when new demands have encroached upon their sovereignty:

There is still great resistance from faculty moving away from print to digital. They use the excuse that my students still want a physical book, but the surveys we conduct show that less than 7% of students using an interactive e-text actually want print once they are comfortable navigating our software.

Panelists made similar observations about leaders of institutions of higher education. One noted a tendency toward “piecemeal approaches” and “middle of the road” policies mismatched with new demands. Another suggested that business school responses would be inadequate because too many leaders see “teaching as a second-rate activity, something that you have to be ‘good enough’ at, not excellent.” In general, panelists seemed to suggest that the years following the pandemic might be a time of reshuffling among business schools, during which some will rise in rankings and others, that had not learned well, would fall.

Trend #2: Use of Asynchronous Learning Elements (Like Recorded Videos) Will Expand but for a Surprising Reason...to Maximize the Value and Intensity of *In-Person* Learning

Our experts agreed unanimously that in-person experiences will remain important in business education. Responses such as “I don’t see technology ever replacing the human interaction factor” and “[live] discussion and interaction are the most important factor in my mind that results in superior in person learning” were representative of views held across the group.

But pandemic experiments appear to have revealed an unexpected potential for asynchronous, technology-mediated learning elements (such as well-composed and produced streaming video) to reinvigorate live, in-person experiences. One panelist explained:

The online platform and activities provide a great opportunity to scaffold learning before/after class and therefore enable more dialogue and interaction in-class...I [now] see [asynchronous, online content] as essential preparation for a successful synchronous [in-person] session.

Another panelist said: “[T]he best thing about in-person learning is the synchronous discussions...So I [prioritized] the tech-enabled features that best support this...versus those that replace it.” The idea seemed to be that asynchronous online content, such as lectures presented in short streaming videos, could help off-load one-way (from teacher to student) content that in-person class time has sometimes been used for. That clears the way for better – more dynamic, creative, and valuable – use of interactive, in-person time (e.g., for collaborative development of frameworks, coaching, troubleshooting of comprehension).

The realization for many was that asynchronous learning elements were best used to complement in-person learning, not replace it. This realization led several of our experts to disapprove of the idea of trying to reproduce the equivalent of in-person experiences online. The clear suggestion within responses of our experts was that certain in-person modes need to be maintained to achieve a required level of effectiveness in business education, and that efforts to recreate such modes online were destined to generate second-rate experiences.

One panelist broadened the idea that asynchronous, online experiences could enhance in-person learning, casting it as an opportunity to rethink the totality of traditional in-person education. This expert also related this opportunity to the competitive challenges mentioned in Trend #1 above:

One of the most significant opportunities for competitive advantage, post COVID, is the conceptualization and re-energizing of the on-campus experience. Being a traditional ‘bricks and mortar’ university, our research has indicated that students really value the opportunity for a rich, engaging experience. Appropriately utilizing each component of the [learning and technology] mix (synchronous [face-to-face] / online and asynchronous) and interweaving these together, allows each component to contribute more than it would in isolation. This also frees up more on campus time for active learning...This is a time of ‘re-education’ for both faculty and students – it’s a new methodology for [learning and technology].

Reframing the virtualization of learning experiences, which many educators reflexively view as a threat to quality, into a new methodology for learning with technology presented what seemed to us like a counterintuitive and optimistic interpretation of recent events.

Trend #3: Blossoming of New Access to High Quality Educational Opportunities (Delivered Remotely)

This trend was clearly underway before the pandemic, but pandemic experiments appear to have provided a breakthrough boost. Past innovations like Massively Open Online Courses (“MOOCs”) have already taken us some distance down this path. One of the authors of this article has developed two MOOCs currently offered by Coursera, which have enrollments of greater than 150,000 learners (a relatively modest number compared to some MOOCs). These learners are disproportionately people in far-away locations – e.g., rural India, Vietnam, Nigeria – who would not have easy access to equivalent in-person experiences (this profile is typical for MOOCs).

Some of our panelists noted that for many learners globally, remote learning, especially in its pandemic-improved form, can work very well. One expert told us that the pandemic had made him realize that high quality remote modes of learning offered advantages over what he had previously done to deliver learning across geographic distance:

I teach exec students, some of them in quite different time zones. In normal times, I would travel there to teach them. But when I am in a different time zone, having videos and other material available to the students, followed by a real-time discussion over video, offers a very effective package, especially since some of the students struggle with English and need to pause and replay the videos to fully understand.

Executive education is likely forever changed by newly achieved “very effective package[s]” for remote learning. Historically, these experiences have required members of a company’s executive team to clear their calendars for multiple days, travel to a single location, and isolate themselves from day-to-day urgencies. Such a proposition was becoming less and less realistic before the pandemic, so having high-quality remote options seems likely to at least shift the mix. Working on professional development experiences in virtual teams is an increasingly accurate representation of the nature of collaboration within today’s companies, thus arguably more helpful than the in-person experiences that are becoming less feasible and common.

An intriguing example of the blossoming opportunities provided by pandemic-improved remote learning is a start-up social enterprise called “One League” (one-league.org). Founded by an entrepreneur with an MBA from Harvard, this organization offers “an Ivy League quality education, irrespective of financial means” using a remote delivery model. Working in cooperation with Harvard, MIT and Stanford, One League employs pandemic-inspired modes of remote case discussion pedagogy to replicate the first year of the MBA program at Harvard Business School (delivered by Harvard-experienced instructors). It couples that experience with a second program year composed of online certificate programs from MIT and Stanford. The inaugural class, which features qualifications comparable to students admitted by Ivy League schools, is from 34 different countries and has median household annual incomes averaging less than \$20,000.

Trend #4: Accessibility Advantages of Tech-Enabled Learning Demonstrated During the Pandemic will become Non-Optional

Several of our panelists observed, often in passing, that remote learning modes forced by the pandemic provided new benefits to a subset of students with learning differences. For many neurodivergent students, who struggle with visual or auditory sensory processing, for example, the ability to pause, rewind, and replay recorded video content, and the relative ease of adding accessibility features like closed captioning, made a significant and positive difference in their learning experiences. Even in interactive online modes, the availability of parallel communication channels, such as the Zoom chat feature, improved some students' comfort in engaging in discussion, both by showing what other students were thinking and providing an alternative way of contributing.²

Amid the increasing awareness of the importance of accommodating these and other differences, expressed in diversity and inclusion movements that have become prevalent in business school, these technology-enabled advantages will not, we predict, be something that can reasonably be abandoned. According to some estimates, the incidence of neurodivergent conditions in the general population might be as great as one in five.³ Thus, as we return to more in-person learning experiences, our thinking will need to expand to encompass questions of how to retain the accessibility advantages we discovered within technology-enabled educational modes during the pandemic. This will almost certainly involve consideration of greater use of learning technologies.

Trend #5: Acceleration of the Rise of Branded Faculty Members and Non-Traditional Educators (Coursera, Google, etc.)

This last trend arises, according to our panel of experts, out of the dissatisfaction that could come from the inability or unwillingness of business schools and their leaders to continue to experiment with apparently promising technology-enabled learning approaches. Many experts identified barriers to adoption of new ways of teaching situated in historical incentive structures, as well as time and budget allocation priorities. They noted, for example, that in most institutions faculty members do not get promoted for teaching excellence, and that leaders are unlikely, post-pandemic, to free up faculty time or allocate generous funding for continued experimentation with technology-enabled learning.

Despite this, several of our panelists suggested that a subset of faculty members would be intrinsically motivated to continue along this path anyway:

It has always been my ‘thing’ to look for better ways of teaching, not just newer or more technically advanced. My personal curiosity toward deconstructing the traditional classroom will likely drive my ambition and work related to post-secondary business education in the future.

By demonstrating new and exciting teaching and learning possibilities, the pandemic, some said, has intensified these motivations. At the same time, though, panelists pointed to sources of frustration for faculty members motivated to innovate in teaching and learning:

Faculty[members] who want to forge ahead are often required to have [their] own funds to get the requisite technology, and often have to adhere to measures and tools that do not let them explore and exploit their ideas and capabilities to full advantage. In an innovation phase, experiments and frequent early failure is the way to go, not ponderous standardization around tools with rigid definitions of pedagogical methods and little room for personally driven development.

Amid such frustrations, according to this line of thinking, some might notice and seek out new opportunities, ways that they can invest their own resources to expand their own opportunities *outside* the boundaries of their institutions. One expert described how institutions might be compelled to provide latitude for instructors whose “programs are in heavy demand, and [who] can establish outside activities (adjunct positions, public/corporate speaking engagements, consulting gigs with prestigious companies).” These activities, this panelist suggested, might be ways to maintain “freedom to innovate” outside the school context. This leads naturally, he suggested, to the “best teachers [becoming] brands in themselves, using technology to gain a large audience both inside and outside their own institutions.”

Such developments could have important impacts on traditional educational institutions, including business schools. If the most progressive teachers see a path to individual brands, they could conceivably leave institutions, leading to perceptions that the most

creative educators and best education are to be found elsewhere This shift could get an assist from the rise of corporate players in the business education space, companies like Amazon or Apple or Google, or even new entrants, who might be able to move faster to seize opportunities made visible by the pandemic, but neglected by schools unable to overcome inertia or other institutional factors. As one expert in our survey put it, “with new certificates and new degrees being offered by non-academic players, the business education landscape is changing rapidly” and the quality of a school’s of responses “could make or break [the] school.”

New Trends, Challenges, and Opportunities

Although these trends pose challenges to traditional modes of business education, we believe that, collectively, they also represent opportunity. Some schools will seize the opportunity and see their fortunes rise. And, as in all competition, some will fall by the wayside or worse.

In our final analysis, we tend to agree with Vivek Goel, President and Vice-Chancellor of the University of Waterloo, in Ontario, Canada. In a 2021 op-ed for the country’s largest newspaper, he declared that “a complete return to what has long been considered ‘normal’ would represent a failure for our campuses and our broader society.” His solution (with which we agree): [U]niversities should grasp this once-in-a-century chance to reset.”⁴

References

1. Dalkey, N., & Helmer, O., 1963. An experimental application of the Delphi method to the use of experts. *Management Science*, 9(3): 458-467.

2. In other research at our school, we have an advisory board composed of accomplished neurodivergent individuals whom we consult in quarterly meetings. The Zoom chat channel is extremely important in these meetings for some participants who, though they have great things to say, struggle with the social challenge of inserting comments into an unstructured conversation at an appropriate time.
 3. See C. R. Cameron; 2021, “Calculating the Incidence of Neurodiversity in the General Population,” Ivey Business School - White Paper
 4. Goel, V. Jul. 2, 2021. Universities have a once-in-a-century chance to reset. What should they look like post-COVID? The Globe and Mail, <https://www.theglobeandmail.com/opinion/article-universities-have-a-once-in-a-century-chance-to-reset-what-should-they/>. Accessed October 29, 2021.
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Tiffany Bayley [Follow](#)

Tiffany Bayley is an Assistant Professor at the Ivey Business School. Her research interests include applying predictive and prescriptive analytics to designing engaging and effective business analytics pedagogy, and applications of optimization modeling to supply chain and healthcare management. Her PhD is in Applied Operations Research (University of Waterloo).



Robert D. Austin [Follow](#)

Robert D. Austin is a professor of Information Systems at Ivey Business School and an affiliated faculty member at Harvard Medical School. He has authored many articles in academic and professional venue, eight books, many cases and notes, three Harvard online products, and two popular Massively Open Online Courses.



David Wood

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David Wood is Executive Director of Ivey Publishing and a member of the faculty of Operations Management at The Ivey Business School. He has served the Ivey faculty in a variety of faculty director roles, most recently as director for the MBA and Accelerated MBA programs.