Virtual Learning for Higher Education:

Navigating the Next Two Phases

The pandemic has made clear that in order for higher education to respond to new challenges, it needs to be highly adaptive. One of the most exciting areas in this regard is virtual education. This whitepaper will examine the current state of virtual education, evaluate its challenges and opportunities, and share big ideas about strategy recommendations that institutions should consider for the road ahead.

INTRODUCTION

First, it's important to note that the pandemic did not singlehandedly launch the era of virtual learning. The acceleration of virtual education was already well underway for many years. For example, the concept of the massive open online course has existed since 2008 and has enjoyed growing popularity for well over a decade.

But it's clear that the pandemic greatly sped up the move toward virtual learning, with many colleges and universities going fully virtual — whether they were adequately prepared or not — during at least some of the pandemic. The overall result for institutions associated with the National Council for State Authorization Reciprocity Agreements was a 93% increase in distance education enrollment from fall 2019 to fall 2020.

As life slowly returns to normal in regard to the pandemic, the virtual education genie won't be put back in the bottle. These past two years have shown that virtual education is one of the most adaptive tools in the higher education toolbox. However, we're still early in the arc of this new era in learning.

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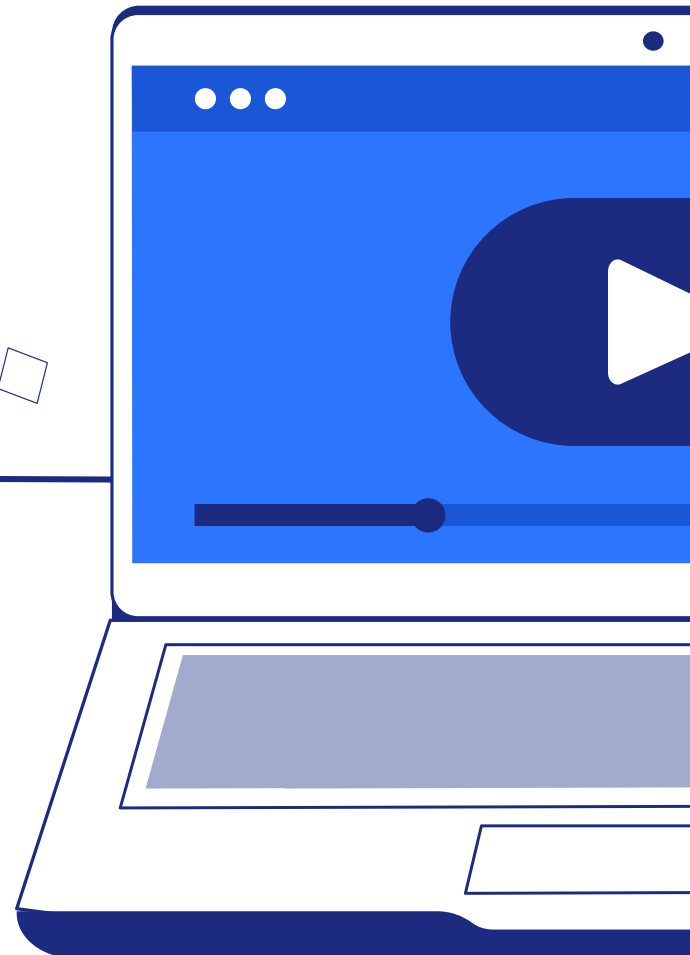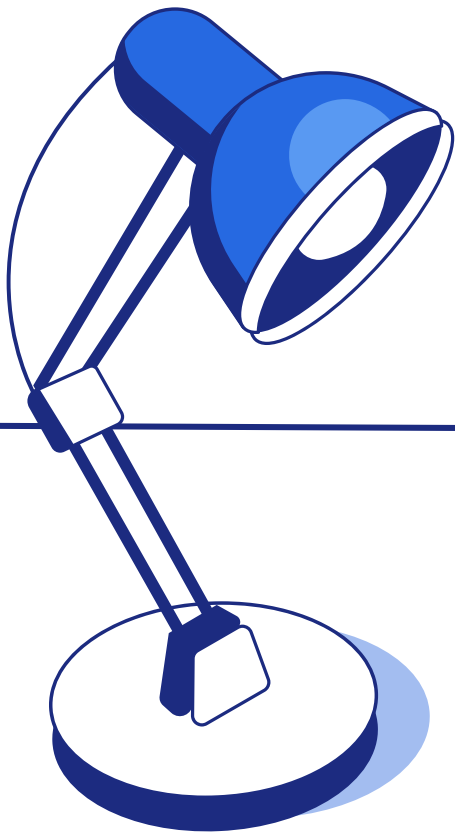
THE FOUR PHASES OF VIRTUAL LEARNING

Like any domain in higher education, virtual learning did not spring into being all at once. It has progressed in four phases:

Phase 1: The Digitization Phase

This phase was about taking textbooks, audio recordings and other real-world materials and making them available as digital resources such as PDFs, slide decks and MP3s. At this time, students started using laptops in class for note-taking, bypassing the traditional paper notebook for a direct-to-digital means of recording in-class content.

Phase 2: The Virtual Lecture Phase

In this phase, which we are just leaving and which has been accelerated greatly by the pandemic, institutions began moving education to virtual channels through platforms such as Zoom. At the same time, websites were offering courses online delivered primarily through non-interactive resources such as lecture videos and slide decks.

Phase 3: The Interactive Phase

This phase, which we are just now entering, will focus on much greater interactivity between students and teachers as well as classmates. (This phase is discussed in greater detail in The Interactive Phase of Virtual Learning section below.)

Phase 4: The Metaverse Phase

Finally, this phase will complete the revolution in virtual education by creating an online academic world that provides sensory experiences to give a truly immersive educational experience. (This phase is discussed in greater detail in The Metaverse Phase section below.)

THE INTERACTIVE PHASE OF VIRTUAL LEARNING

The initial rollout of virtual learning (Phase 2) was based on a model of the virtual lecture hall, with videos of lectures and notes but less ability to be interactive. To sustain student interest and promote active learning, however, virtual education has to become richly interactive. This step in the evolution of virtual learning is the Interactive Phase.

Online technology is already capable of this level of interactivity, but only if we roll up our sleeves, build these systems well and deploy them effectively. Let's examine some of the relevant issues that will shape just how this gets done.

First, we should be clear on which institutions of higher education will be most likely to benefit from offering cutting-edge, interactive virtual learning. The answer is the middle-tier schools. This is because middle-tier schools compete on a different basis than top- and lower-tier institutions. The top-tier (e.g., Ivy League) schools attract students based on prestige while the lower-tier schools compete on overall price. That leaves the middle of the pack competing on other values to the students and their families – an entirely different value proposition. This balance of price and actual or perceived benefits such as a strong local network, a proud tradition in a specific discipline, niche or specialized coursework is a delicate and complicated value proposition in which universities are constantly shaping and battling for position.

Robust, effective and engaging virtual learning is a natural candidate for that value proposition. It can offer many aspects that appeal to middle-tier students. For example, it can be more self-paced and self-directed than traditional, in-person models of education which are required to meet at set times in order to schedule lecture halls.

That flexibility is useful for those who may be juggling other responsibilities or concerns such as working part-time, or even trying to get a small entrepreneurial effort off the ground. For instance, students could choose to attend in-person instruction one week and then attend school virtually in the next week. Colleges and universities can sell this value by promoting a "choose your own unique journey to fulfill your mission" approach. All of that can be supported by offerings such as virtual workshops and virtual experiential learning. Artificial intelligence systems can provide a way to intelligently adapt the course structure to meet the needs of students who wish to emphasize the self-paced model in their education.

The institutional goals in the Interactive Phase should be centered on creating an infrastructure that supports a high level of engagement and exceptional student experiences.

In order for that to happen, the systems used need to be well-tested prior to launching any virtual learning initiatives and then monitored for problems or areas that can be improved. This will also require eliciting student and educator feedback to root out any concerns or ideas for enhancement.

KEY CHALLENGES TO THE INTERACTIVE PHASE

In any virtual education infrastructure, there are many moving parts and things to keep in mind. Let's look at some of the key challenges in rolling out a comprehensive virtual learning offering in the Interactive Phase.

Structure

One primary challenge is the question of how the virtual offerings will be structured. Right now, in-person learning and online learning are often entirely separate concepts. Moving toward a more seamless whole in which the boundaries of the two styles of education are dissolved is necessary.

This will require careful listening and planning in terms of the curricular aspects. Questions such as credits per course, how requirements will be fulfilled, whether virtual aspects can fully replace in-person interactions for some courses and others will need significant consideration.

There's also the structural issue of how virtual platforms can deliver a truly immersive experience instead of just being an electronic way to share files. Simply sharing a Word document or PowerPoint presentation is not enough in the Interactive Phase. We need to be moving toward a higher expectation – such as digital whiteboards, pulling media into shared virtual spaces during events or other kinds of highly interactive, real-time engagement. This is an enormous challenge, but also an incredible opportunity. The software exists, and many are experimenting with how to bring into daily practice these tools such as Miro, but they have not been established as the normal course of the learning experience such as PowerPoint presentations in business school.

Reticence from some educators

Any changes in a workplace will provoke concerns from those who are used to doing things the old way. College educators are no exception. This concern may be more pronounced in academic disciplines that are more used to working with a traditional academic model.

Fortunately, the same flexibility that will appeal to many students is likely to appeal to most faculty members as well. Virtual learning means they, too, can conduct work from off-campus, allowing a much more flexible workweek. In a world that has moved significantly to a work-from-home model since the pandemic began, this is a great plus for educators.

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Going more virtual also opens up your educator talent pool to people living in any geographic location as long as they have access to the internet. There will need to be some considerations for issues such as right to work for a U.S. organization and proper credentials for an instructor, of course, but these are issues that are fairly easy to lock down and then implement solutions.

Accreditation concerns

Creating more virtual offerings needs to be in alignment with concerns about accreditation. It's likely that accreditation agencies will be providing guidance on expectations for how to fulfill their standards in this new digital world.

Personalized education paths

With custom business and technology solutions, particularly if they include AI-based approaches, each student's learning journey can be highly personalized. That can greatly increase engagement because each student can approach their learning journey in a way that best aligns with their own strengths and goals. One can imagine students decorating their virtual learning environments in ways that they find fun and inspiring, motivating them to stay on task, do their best and develop toward their highest potential.

Prioritizing gamification and experience-based models

"Gamification" is a fairly new term, but schools have always used some form of incentives beyond just grades — art programs display student artwork in the hallways or in gallery exhibits; science programs bestow travel awards to conferences for excellent research projects; student work is featured in campus magazines; and more.

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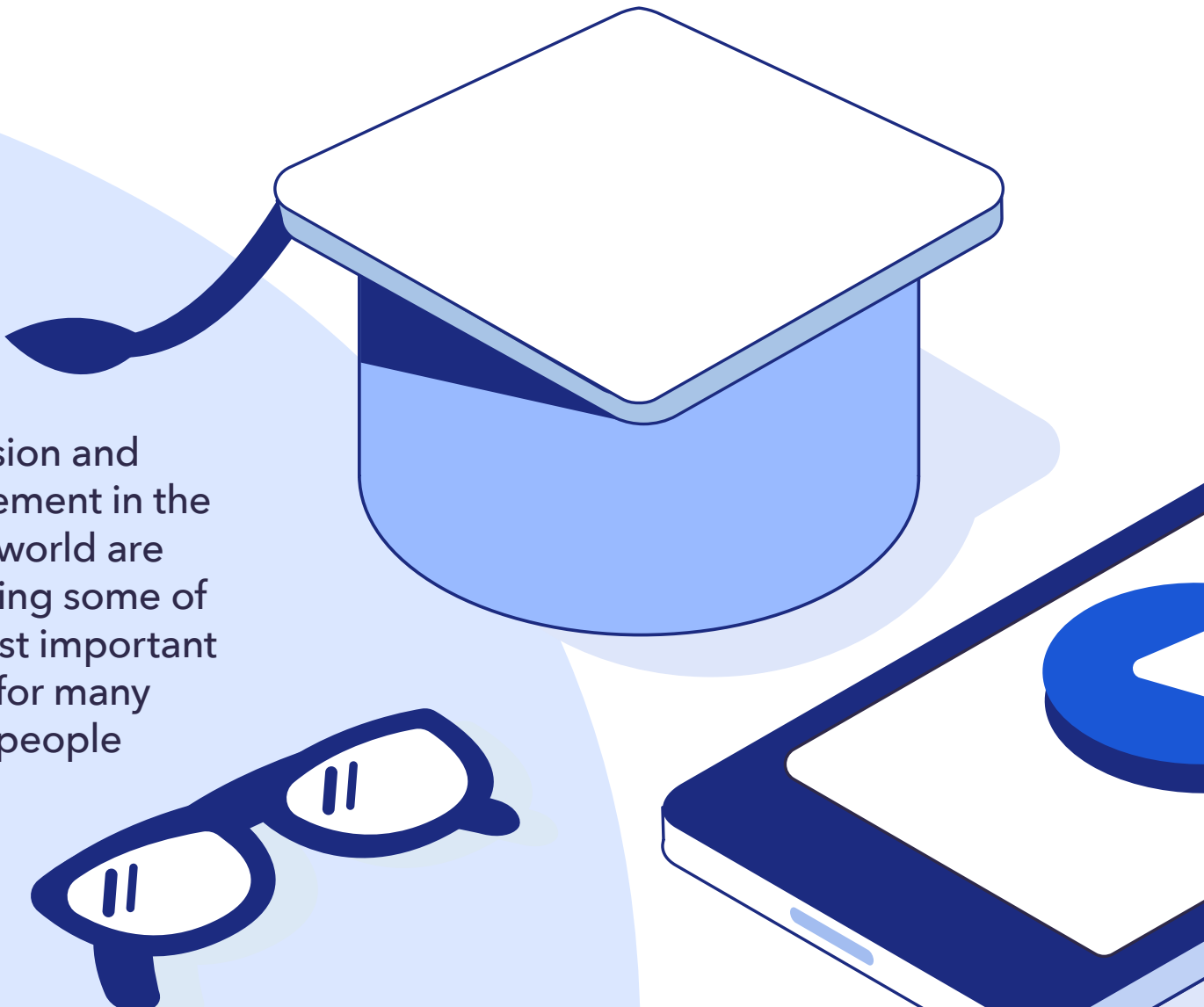
In the same way, virtual learning can make use of various reward systems to make learning fun and engaging. For example, virtual learning platforms could provide fun animations when students have moments of success, or students could earn "points" in a game-like environment and compete for virtual or real-world prizes. There's endless potential here.

IT infrastructure

For virtual learning to work, it has to be reliable. When systems crash frequently, lose work or grade assignments incorrectly, students and educators will become quickly discouraged and the virtual platform will be seen as more trouble than it's worth.

To avoid that, many schools will need to be sure that their IT infrastructures are robust and up to the challenge of running the platform smoothly. Students should be able to log in from anywhere, use collaboration tools easily, experience essentially zero crashes, share content and do it all in real time. In many cases, this may require upgrading existing IT configurations to newer systems to ensure success and guarantee better experiences. It's an investment in time and money but also an institution's future as a relevant center of higher education in the 21st century. One key issue to decide here is which parts of the learning platform should be built or bought. With a wide array of technology solutions — from turnkey platforms to ad-hoc and add-on services — universities will need to focus on their core competencies for the build portions and select best-in-class off the shelf for the remainder.

Production values and branding

Although institutions of higher education are not expected to compete with Hollywood for the best in visual effects, putting some care into the appearance of your virtual educational content can go a long way toward effectively sharing big ideas and making your content memorable and engaging.

Moreover, if the content all has a particular "look and feel" to it, that can serve as branding for your college or university. It is another opportunity to distinguish one school from another. So it's important to work with the right people to come up with a visual look and to provide effects, logos, sound production and other elements that polish your content.

THE METAVERSE PHASE

The Interactive Phase of virtual learning is a great improvement over previous phases that were passive and provided unengaging content — but it's just the beginning. Once we get all the bugs worked out of that initiative, we will be ready to enter the Metaverse Phase.

This approach will create online learning worlds using virtual reality. It will have many of the sensory aspects of in-person learning and will provide a very rich, stimulating experience that will make remote learning feel real. For example, one could have chance social interactions just as you would when bumping into a friend or professor while walking to class in the real world.

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Anything that requires 3D immersion, at least visually and acoustically, should be possible in the academic metaverse. One can imagine opportunities for distance learning that would have seemed impossible just a few years ago. Dance classes, sculpture, virtual anatomy, astrophysics complete with interstellar travel and other science fictional-seeming opportunities will be coming. If that seems too far-fetched, ask yourself whether an iPhone 13 running Google Earth (and 100 other incredibly rich apps) would have seemed far-fetched even 20 years ago. The promise of the future is at our fingertips.

Of course, the Metaverse Phase of virtual education will require even higher bandwidth and more powerful devices than the Interactive Phase did. No metaverse will be particularly engaging if the learning experience is disrupted with herky-jerky movements, frequent screen freezes, disrupted sound and primitive graphics.

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ACTIONABLE STRATEGIES FOR HIGHER EDUCATION LEADERS AND INSTITUTIONS

There are a handful of actions that institutes of higher learning can do as they navigate through this acceleration of virtual education, including:

Start small but think big
Begin by focusing on a proof of concept. An entire virtual program won't be created within a year — that's unrealistic. Instead, start by establishing a pilot program at the level of a single department or even a single course. When you do want to expand, you can do it gradually. For example, you can offer a virtual learning certificate rather than going right to a full degree. By starting small, you can retain control of the project, assess what is working and what isn't, and then build from that seed.

Work to maximize brand differentiation
Eventually, all institutions of higher education will have compelling virtual learning platforms, but each will still have to compete with the others for the best students. So it's important to decide early on in the process how to best deploy funds and human resources to carve out a distinctive niche for one's college or university in the virtual learning landscape. Ask yourself why students from abroad or from another state might choose your school because of its unique approach to virtual learning. Then spend the time, money and effort to build that unique selling proposition effectively.

CONCLUSION
There's a perfect storm brewing in higher education. The pandemic has shown the incredible value of flexibility and the option for working and learning from home. It also caused volatility in the U.S. economy and employment landscape that have many rethinking the costs of a college education and its promises of a more secure financial future.
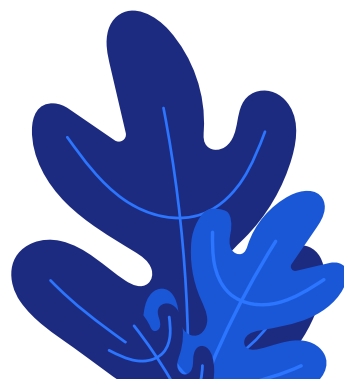
At the same time, immersion and engagement in the digital world are becoming some of the most important values for many young people. Highly narrative, immersive and self-controlled video games; online worlds such as Second Life; augmented reality systems; growing breakthroughs in the sophistication of artificial intelligence; virtual reality goggles and systems; and other technological marvels are making the world of simple classrooms and $150 hardcover textbooks seem outdated.

These factors converge to present an exciting new opportunity for institutions of higher education. Without building any new brick-and-mortar structures – but with good investment in IT infrastructure and a creative approach to virtual learning – these schools can provide educational opportunities to students anywhere in the world. They can do it at any time of day or night. They can do it at each student's own pacing. And these courses can be taught or facilitated by educators on the other side of the globe.

Don't delay embracing the Interactive Phase of virtual learning and keep your eye on the upcoming Metaverse Phase. It will be here before you – and your students – know it.

For more information, please contact us for a free two-hour workshop with your institution's administrators. We're here to help you accelerate virtual education and achieve lasting success.

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