EduFLEX™ The Hybrid Classroom Solution

Pandemic 101:

Higher Ed's Response to COVID-19

What was spring 2020?

A dry run

Several months into the pandemic, educators have had some time (not nearly as much as they'd like) to adjust to the new normal on their campuses.

You've assessed your existing educational technology. You've examined your curricula. You've explored learning management systems, pored through budgets, and instituted new safety and security protocols, all the while doing your best to imagine what the future looks like.

Now the fall term is underway – and the real work begins.

How do you maintain continuity of education in a world turned upside down?

Pandemic 101: Higher Ed's Response to COVID-19 is a tool to help colleges and universities understand their options as they reconfigure and reimagine a learning environment that can meet current educational requirements and accommodate changes yet to come.

One thing is certain: The pressure is on. College students were willing to cut their schools considerable slack in the spring of 2020. But come fall, that attitude shifted. Students returned to class with much higher expectations – and a wide range of concerns.

Among them, according to a July 2020 Educause survey of college-bound seniors across 17 states: How to get the full "college experience," how to meet academic challenges, and have a productive at-home learning environment.

In this guide, we'll look at the ways higher ed institutions can meet those demands with educational technology that's reliable, affordable and perhaps most important: easy to implement and maintain.

In-person education isn't going anywhere

Teachers and students have been meeting in classrooms since the dawn of the modern educational system, and not even a pandemic will stop that. But it will alter the established order in ways both dramatic and subtle.

Safety first

One noticeable shift: new safety protocols that physically distance students from one another and reduce the chances of viral spread. These may include:

- **Smaller class sizes.** Instead of lecturing to 100 students at a time, instructors might instruct groups of 50, either one after the other or simultaneously through the use of overflow spaces that are technologically enabled with monitors and speakers. The use of AV over IP can extend the educational experience to additional rooms via the school's network.

- **Disinfecting technologies.** Companies like Granteq provide UV-C disinfection robots that kill agents responsible for flu, coronavirus, and other contagions on the surfaces of rooms.

- **Touchless engagement solutions.** New technologies eliminate the need to make actual physical contact with touch-interactive digital signage.

- **Plexiglass partitions.** In spaces where social distancing is limited, clear plastic dividers create an effective barrier to reduce viral transmission.

Clarity in communication

Even before the pandemic, technology was already transforming higher ed. The pandemic has only accelerated the pace of change. Today, technological innovations that might once have been considered "nice to have" have become mission-critical components of the educational process. They include:

- **Enhanced audio solutions.** Masks and face shields not only impede viral spread; they also stifle voices. To help compensate for muffled speech, a wide range of audio solutions ensure even the most socially distanced students can hear and be heard.

- **Sound absorption.** In the age of COVID-19, higher ed institutions have achieved social distancing by converting unused spaces into overflow learning environments. Many of these rooms, however, were not intended for that use, and lack needed features – among them, sound absorption. It's important to address this issue, as echoes and noise can be so distracting that students simply stop paying attention.

- **Wireless content sharing.** Whether students have been issued laptops, tablets or are using their phones, it's now possible to share and annotate educational content without entering anyone else's personal space.

- **Digital signage/Distributed audio systems.** From providing scheduling information to assisting with wayfinding and reminding students of safety protocols, communication technology can help keep the focus on safety and security.

- **Lecture capture and video streaming.** Lecture capture and video streaming in higher education aren't new concepts. For years, students have been using these tools to learn at their own pace. They can now watch on their own time, review complex material, revisit sections they missed in the live lecture, make more detailed notes and take control of their learning.

Talk to an educational technology specialist

Take advantage of an expert who's up to date with the latest technology – and the myriad ways forward-thinking educational institutions are adopting it. AV solutions providers that specialize in the higher ed sector will be uniquely equipped to meet your needs for comprehensive, workable solutions.

One area where a specialist can be especially useful is in helping colleges and universities create or tailor a technology infrastructure to accommodate new solutions while providing the flexibility necessary to prepare for an uncertain future. After all, AV educational technology solution providers are experts at connecting people and facilitating the sharing of ideas remotely. That's never been more important than it is today.

The future is now

Colleges and universities have responded in a variety of ways to COVID-19, but virtually all of them have had to grapple with making the transition from in-person instruction to remote learning. As time has passed, higher ed institutions have explored and implemented ways to bring students back to campus, but as the pandemic cuts across America, ebbing and peaking and suddenly spiking, schools have resigned themselves to the possibility that they may have no alternative but to go entirely online.

Lessons learned

As the Fall 2020 term commences, educators are building on their experiences during the final third of the 2019-2020 academic year, when schools shut down abruptly and staff scrambled to instruct students online.

Here's some of what higher ed faculty, support staff and administrators have learned through trial and error:

- **Engagement is everything.** If it was hard to make students pay attention to an hour-long lecture in the past, good luck sustaining their attention over the internet. Educators today are challenged not just to retain students' attention, but to stoke their interest and involvement. The key is to prompt learners to take ownership of the experience; to modify the process so that students propel themselves forward.

- **Access is instrumental.** No higher ed institution can take it for granted that their students will have uniform access to the technology and bandwidth that make distance learning a plausible alternative to in-room instruction. It's an absolute imperative that budget be allotted for resource-deprived students to compete on an even playing field.

- **Quality counts more than ever.** It would be an understatement to say that today's students expect a lot from communication technology. They're acutely aware of what today's platforms and devices are capable of, and as consumers they expect the best possible experience. That means schools need to address connectivity and access issues, sound and video quality, learning management system integration and much more.

Invest in the right Learning Management System (LMS)

Effective online education requires structure and clarity in the management of workflow. Says Matt Mansfield writing for Pagely.com: "Using an LMS, teachers can assign work, share content, and post grades while students can turn in work, view content, and collaborate on forums and with social-like features."

Comprehensive learning management systems give educators the power to:

- Create an educational workflow that suits students' needs
- Collaborate within the system – that includes instructors with students, and students with students
- Import standardized content from educational content producers
- Create, administer and score tests
- Create reports for students, teachers and administrators
- Integrate with common classroom tools such as Google Apps
- Enable mobile access

Which LMS is right for you?

You have lots of choices. In fact, there are currently more than a thousand LSM vendors, offering countless features. To help guide you, Pagely.com recently assessed leading providers. Among them:

- **Blackboard.** Available as both a "software as a service" (SaaS) model and a non-SaaS model. The system integrates with institutions' student information systems and has a mobile platform that operates as well as the desktop.
- **Schoology.** A full-featured LSM notable for its built-in integrations, including YouTube, Google Drive and Dropbox.
- **Brightspace.** Includes a feature called "Release Conditions," by which a professor can have content appear to a student only after certain conditions have been met, such as turning in materials from the previous session.
- **Canvas.** Admired for its easy-to-use interface and free trial option.

While the above are paid LMS options, open-source alternatives abound as well. They include Moodle, Sakai, WordPress Learndash, Sensei, LearnPress (a free plug-in) and more.

Important core features in an LMS

- **Mobile accessibility.** The number of mobile-first students will only continue to grow.

- **Scalability.** Your LMS should support your institution's expansion, so focus on factors including whether it's cloud-based or on-premise, the pricing model, and the scope of available features.

- **Ease of use and customization.** You'll want it to be as intuitive and easy to use as possible.

- **Content creation vs. content management.** Is your institution more focused on allowing instructors to design content, courses and assignments? Is the emphasis on managing preexisting content and measuring progress through lessons and courses? Your answer will influence your choice of LMS.

Consider the collaboration tools you'll need

Distance learning requires more than a camera, microphone and internet connection to be effective. Remember your top priority is to engage learners. The way you do that is by enabling and facilitating collaboration so that you're equal partners in education. Your options are endless, but here are several that warrant particularly close attention:

Audio

- **High-quality microphones.** Sound-gathering devices are nothing to skimp on. Fortunately, high quality no longer comes at a premium price. Premier manufacturers like Shure offer a wide variety of microphone solutions, from in-ceiling to on-table. Remote learning is only as effective as the technology that enables people to see and hear you, after all.

- **Intelligent speaker solutions.** Accurate sound reproduction is essential to hear and be heard. There's no shortage of great speakers out there, some of which are designed specifically for speech intelligibility. Talk to your AV integrator about the right speakers for you.

Video

- **HD video cameras.** High-definition video with rich, sharp detail is no longer reserved for *Fortune 500* boardrooms. Affordable HD cameras bring high-quality video conferencing to the classroom.

- **Interactive display systems.** These allow people to collaborate and share information, whether from multiple sources, local or remote. Annotation, file sharing, projection and more are all features of a variety of interactive presentation technologies and tools available today.

- **Video streaming services.** Thanks to Facebook, Instagram and other platforms, live streaming is easy today. Moreover, a number of simple, cloud-based solutions allow you to stream video effectively and affordably.

- **One-touch content sharing devices.** Forget about untangling wires, looking for adapters or downloading plugins. Today you can share content via your phone, tablet or laptop simply by clicking a button.

Wireless content sharing

In a BYOD world, wireless content sharing dramatically enhances collaboration with support for laptops, tablets and smartphones. Combined with high-performance wireless streaming, content sharing enables participants to share and build on ideas with intuitive ease.

Interactive whiteboards

These enable presenters to comment, present and manipulate information on display in real time. They also support multiple users, furthering collaboration and information sharing, and are especially effective for visual learners.

How to improve access and enable connectivity

- Partner with ISPs to provide free access to registered students.

- Provide cell signal boosters to improve signal strength and enhance the reliability of connections.

- Implement wi-fi 6 solutions to increase speed and enable more and better connections.

- Create mobile wi-fi hotspots where students can get a reliable signal.

- Remove the barriers to connectivity – simplifying and streamlining the experience of logging on makes it that much easier for students to participate.

Focus on audio and video quality

- Equip students with noise-cancelling headphones. Especially for students in crowded or chaotic home environments, they can make all the difference in maintaining steady engagement.

- Provide streaming solutions that can be accessed live or on-demand across platforms.

- Invest in HD cameras with pan/tilt/zoom capabilities. They'll help bring the classroom experience to life.

- Equip instructors with tablets. They free educators from having to stand at a lectern.

A focus on flexibility

Let's face it: no one really knows how higher ed is going to evolve over the coming months or years. But evolve it will, so college and university administrators, faculty and support staff have to be ready for whatever may come their way. And one of the smartest strategies they can follow is to embrace the possibilities of hybrid or blended learning.

First, what exactly are we talking about? Well, much as hybrid car engines operate on a combination of gasoline and electricity, hybrid classrooms run on a combination of in-person learning and distance learning. Schools around the country have reacted to COVID-19 in different ways, and the paths they're taking are expressed in the kind of hybrid experience they offer.

Some schools have welcomed back on-campus learners while accommodating students who prefer to receive their education remotely. Consequently, they have adapted their teaching methodologies to incorporate technology that allows them to serve both audiences simultaneously – ideally without compromising the experience of either group. Hybrid learning can also refer to instruction in which the curriculum is delivered via a combination of in-person and online instruction.

What's needed for hybrid instruction

Just as with pure distance learning, hybrid education requires plenty of internet bandwidth, high-quality audio and video, an effective learning management system, and a suite of collaboration tools tailored to students' needs.

There are key differences, however, between distance learning and hybrid instruction. By combining traditional face-to-face instruction with online learning, students benefit from direct interaction with faculty while taking advantage of the self-pacing and features offered by computer applications.

Types of hybrid/blended learning

Take a moment to consider the possibilities, and it's easy to see how in-person instruction and technology can be combined to advance students' understanding. Here are a few approaches that have been proven to work – and are being refined every day:

Station rotation and lab rotation. In this model, learners rotate among different stations, at least one of which can include online learning. Imagine a biology class in which stations include models for cell assembly as well as an online component for reviewing the functions of cells.

Remote blended learning. Here students complete most coursework online but come to campus for face-to-face interaction with the instructor. This approach is especially effective for working professionals who are pursuing advanced degrees.

Flex model. Students move on fluid schedules among learning activities according to their needs. Online instruction is the backbone of this model. Teachers provide support and instruction on a flexible, as-needed basis while students work through course curriculum and content. The flex model is often used with well-defined curricula such as GED and test prep courses.

Flipped classroom. The traditional educational model involves students gathering for lectures, and then completing assignments on their own or in groups. This model upends that orthodoxy. Here, learners take in the bulk of information at home, and convene with instructors for discussion and creative projects.

How to make hybrid/blended learning truly effective

In order to provide real value to students in hybrid/blended learning programs, it's essential for colleges and universities to approach the learning experience holistically. How? By treating hybrid/blended learning as something unto itself.

Start from the ground up. Don't just layer online activities atop existing face-to-face courses. This is a recipe for over-burdening students and wasting time. Instead, redesign your course for online delivery, and then consider ways to enhance the experience with face-to-face experiences.

Create a truly integrated learning experience. Strive to provide a seamless experience. Define what you want to achieve in class, and determine how online, self-paced learning can complement it, or vice versa. Maximize the strength of both channels. For example, use in-person time for meetings while focusing online sessions on content delivery.

Choose the most effective technology and communication tools. On the IT side, you know you'll need a high-quality LMS, video recording technology and applications, videoconferencing software and institution-specific software. These tools will support core activities such as sharing content, embedding videos, submitting and grading assignments, posting announcements and posting in forms. Moreover, they often support third-party integrations.

The danger, however, is that all these capabilities and options can be overwhelming. Here it's valuable to seek the wisdom of educational technologists and instructional designers. In combination with an AV integrator that truly understands higher ed, you'll be able to choose and use the tools to best meet your institutional and pedagogical objectives.

Focus on access, inclusivity and privacy. Even at elite institutions, it's a mistake to take for granted the notion that students will have ready access to the resources hybrid/blended learning demands. Consequently, when making budgetary decisions, factor in strategies such as equipment loans and course accommodations.
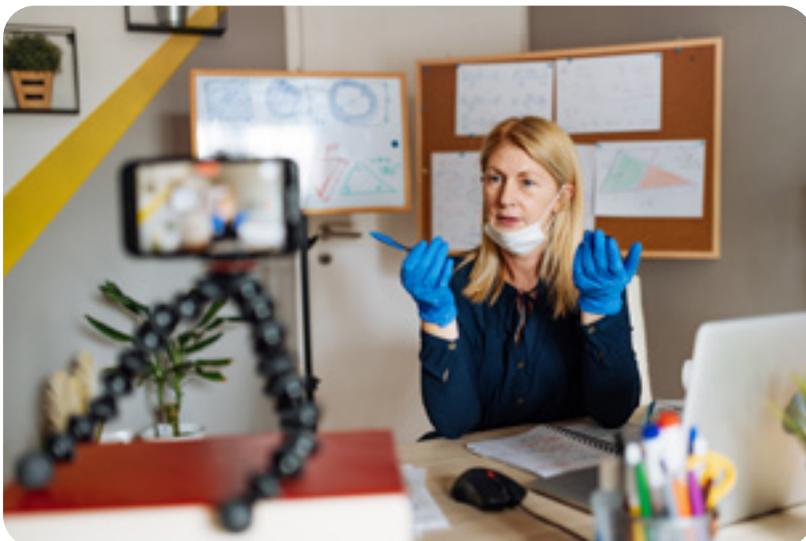
One more time: Engagement is everything

In a perfect world, all your students would be so highly motivated to learn that they'll hang on your every word and thank you after every class.

We're not living in a perfect world. Today's digitally native students demand a compelling learning experience *on their terms* and, in order to compete for their tuition dollars, colleges and universities have no choice but to treat learners like the consumers they are. So here are some ways to engage your audience:

- **Take advantage of interactive collaboration features.** Consider the whiteboard. Zoom's whiteboard feature allows educators to diagram ideas and write text. It's a great tool for leading brainstorming activities. If you use Google Meet, tools such as Chrome Canvas and Google Jamboard are compatible add-ons.

- **Embrace continuous feedback.** This is an effective way to assess student engagement. Zoom, for example, has a nonverbal feedback feature that you can use to receive feedback during live lectures. Sure, it can be a bit disconcerting to have students send you clock or coffee icons, but the impact will actually improve your communication. Want to encourage anonymous feedback? Consider Google Forms as a means to receive timely, simple responses.

- **Consider the power of good lighting.** Dark, depressing lighting on a Zoom call can put everyone to sleep. By adding lights in your room and being conscious of light placement, you can brighten up your lectures on multiple levels.

- **Never settle for good enough.** Peggy Semingson, associate professor of curriculum and instruction at the University of Texas at Arlington, told Higher Ed, "It helps to have a mindset that an online course has to be constantly tweaked and updated to stay current with trends in how students learn online. Students expect to be able to access the course on their mobile device, get quick and timely responses from the instructor, and want a highly flexible course curriculum.
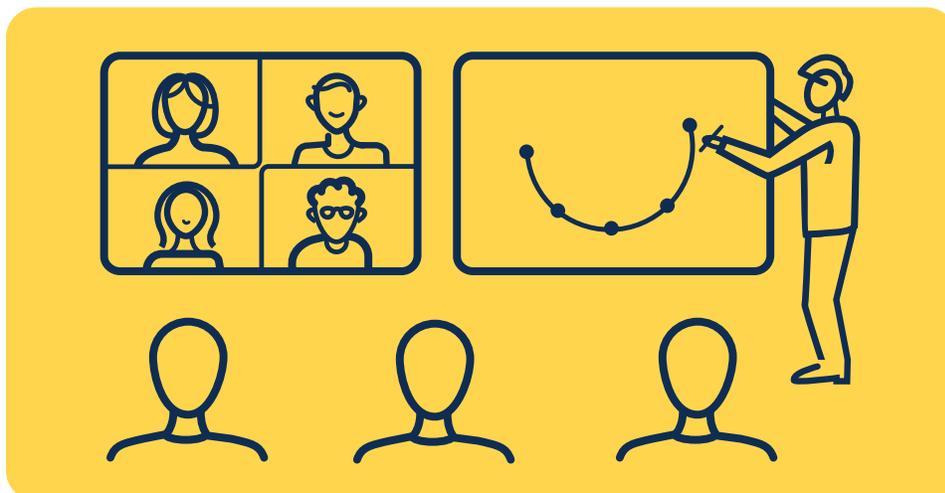
Be secure

The more higher ed integrates technology into the learning experience, the greater its vulnerability to cyberthreats and data theft. An experienced AV integrator can help by offering you advice about:

- Enhanced network firewalls
- Expanded VPN capacity and protections
- Cloud access security brokers
- Increased endpoint security

Be accessible

We've touched on this earlier, but it's worth restating. Invest in accessibility. Budget for it. Resolve to leave no student behind because, without access to computer labs and other campus resources like free wi-fi, low-income students and students with disabilities are more likely to struggle academically. To guard against this possibility, consider:

- Loaner laptop/tablet programs
- Free wi-fi hotspots
- Accessible online course design
- Broadband assistance

A final bit of advice:
Partner with an expert

The world of higher ed is changing rapidly. In order to remain a viable learning institution, you need to take action by availing yourself of the benefits of educational technologies. But while time may not be on your side, accomplished audiovisual integrators mostly definitely are. They have the real-world experience, product knowledge, and connections to provide workable solutions.

Here's an example: EduFLEX™, by ClearTech AV. Pre-configured for immediate use, EduFLEX is a portable, self-contained system that converts most any space into a hybrid learning environment quickly and easily, even for your most technology-averse English Lit professor. Choose from a portable system that incorporates all components in a rolling case, or a desktop/rack-mountable system with all components built in. You can set up both systems in five minutes simply by plugging in an HDMI cable and setting up your camera. *Learn more here.*
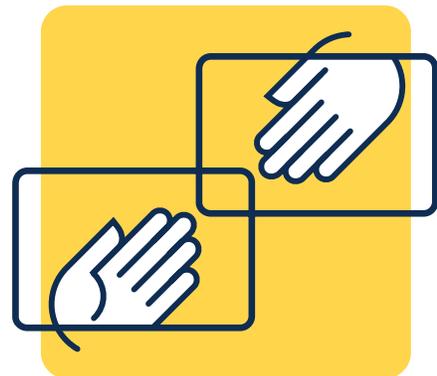
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