COVID-19 is Changing How One University is Thinking About Tech

The largest public research university in Virginia is depending heavily on virtual learning, and these changes may be here to stay.

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Since the onset of public health concerns surrounding the pandemic in late March, schools nationwide pivoted their operations to support modified environments like virtual classes to accommodate public health directives. For Virginia's largest public research university, that transition was no easy feat.
With more than 37,000 enrolled students, less than 20% of courses at George Mason University are now happening in person, a percentage that also accounts for the number of hybrid courses that mix both online and in-person teaching at the school, according to Associate Provost Janette Muir.

Muir leads the school's Instructional Continuity Group, which was created to address concerns around various learning options and develop a plan for best practices ahead of the fall 2020 semester with safety in mind. The group was tasked with developing "a multifaceted approach to support curriculum development, course delivery and technology competency university-wide," according to a university announcement about the group in July.

The university's mass migration to virtual instruction required not only prioritizing the safety and well-being of students, faculty and staff, but also recognizing ways to best support students with the technological services throughout the academic year, Muir told GovernmentCIO Media & Research.

One of the main challenges her team tried to solve was how to provide individuals and instructors accustomed to in-person setups with the resources they need to succeed during the sudden pivot to a virtual environment.

"We all just problem-solve in every meeting — What do we need? What's missing? What licenses are necessary? What are the challenges with webcams in the classroom?" Muir said.

To support many students and teachers, granting access to easy-to-use video conferencing tools like Zoom and Microsoft Teams was a relatively simple solution.

"We discovered that the first thing people were asking for was Zoom access," Muir said, adding that before the pandemic, the university was primarily dependent on WebEx. "We had to act on that — provide access and assist and get the licensing — and then, we needed to make sure there were certain software packages available."

Experts from the university's IT department and its Stearns Center for Teaching and Learning, which supports innovation in teaching involving things like accessibility standards and syllabus design, acted on opportunities to think differently about manual processes to create more efficient, digitized solutions, Muir said.
Muir hopes these solutions will continue even beyond the pandemic. However, large-scale concerns that existed prior to COVID-19 — such as limitations in infrastructural broadband and affordable options to reliable data services and devices — have been more complicated to address.

“In some cases, [faculty] did not have Wi-Fi access at home, they did not have computers at home, and they did all their work in their offices — so we had to work a lot around those issues,” Muir said. “We found that students were not in good situations at their homes; some had no Wi-Fi, shaky Wi-Fi, and they had to basically find hotspots in parking lots. We were trying to do as much as we could to provide Wi-Fi access, and we've lent out laptops to students and have arranged for both faculty and students to get webcams as needed.”

Taking into account the level of health-safety risk in resuming classes — as outlined in GMU’s Safe Return to Campus Plan — the university crafted innovative strategies and digital health tools to allow students to safely return to school, which could help alleviate some of the identified long-standing issues in the near term.

In addition to enforcing public health directives, the university launched a digital COVID-19 contact-tracing app to rapidly monitor and detect early signs of a coronavirus outbreak.

The tool was developed by a team led by global health and epidemiology professor Amira Roess — a former epidemic intelligence officer for the Centers for Disease Control and Prevention. Anyone who enters campus must complete the screening tool daily.

As the university continues with its fall semester and closely monitors outbreak activity across campus, it's also looking ahead at how the pandemic will impact course enrollment next year.

But as with other institutions across the country, the technical and organizational changes made during the pandemic will likely have greater implications as to how students learn for years to come.
“Many institutions — including Mason — still have some old processes that we need technology to help us continue to improve,” Muir said. “People have learned that they can do online learning differently, and some of the original perceptions about this kind of learning are shifting ... I think this will continue to direct us in the future because I don't think we're ever going to go back, even in our work life, to how we were pre-COVID.”