

Democratizing access to higher education

Montana State University Billings and Dell Technologies partnered to advance online learning technology for students everywhere through utilizing the Connected Classroom technology.



Educator Profile



Higher Education | United States



“Connected Classrooms help faculty give students the integrated experience they expect.”

Brett Weisz

Chief Information Officer,
Montana State University Billings

Organization needs

With a tradition of leadership in alternative class delivery, and with more students interested in a blend of in-person and online learning through HyFlex modality, MSU Billings sought improvement in online collaboration between faculty and students regardless of how they attended class. MSU Billings also desired a collaborative classroom solution for its new Yellowstone Science and Health Building.

Organization results

- Provides faculty with additional teaching tools and students with enhanced learning experiences.
- Equips on-site and remote students with an interactive platform.
- Delivers a high-quality, interactive classroom experience.
- Enables students and faculty to use familiar learning applications.

Solutions at a glance

- Dell [C7520QT](#), [C8621QT](#) and [C5522QT](#) 4K interactive touch monitors
- [Dell OptiPlex 7090 Micro desktops](#)

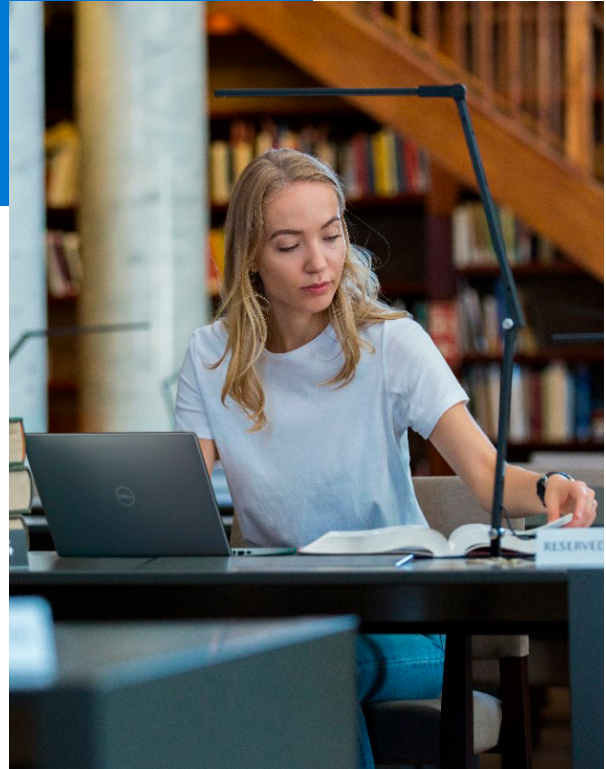
A college education. These three words describe a transformative accomplishment that only four million people in the United States achieve each year. This number could be higher. However, work schedules, remote addresses, health concerns and other life responsibilities often make in-person classes challenging for many. MSU Billings, the state's third-largest public university, has been at the forefront of distance and online learning for decades. More than 60% of their student body has attended classes online. Given MSU Billings' forward thinking, they had an easier transition to all online classes than many other institutions at the onset of the COVID-19 pandemic. However, the pandemic still revealed some opportunities.

Providing a way when there's a will

MSU Billings' original Connected Classroom design enabled learning to resume via videoconferencing within two days of the national stay-at-home order, but the university noticed some challenges in online student collaboration. Many classrooms needed a virtual space for collaboration and demos, and additional video cameras to increase visibility of class materials, especially classroom whiteboards.

As soon as the national stay-at-home order eased, MSU Billings began offering additional HyFlex courses, which gave students the flexibility to attend classes in person or online as they saw fit each day. However, whiteboard visibility remained an issue for many.

Brett Weisz, chief information officer at MSU Billings, met with Dell to discuss the expansion of their Connected Classroom design in their new Yellowstone Science and Health Building, and asked what solutions were available to remedy remote learners' whiteboard visibility challenges. The Dell team introduced a Dell 75-inch 4K interactive touch monitor and Dell OptiPlex Micro desktop that could replace existing



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tools and technologies. Weisz says, “My initial thought was that the touchscreen monitor might be interesting to put in a conference room, but by five minutes into the conversation, my mind went to what our current Connected Classrooms could become. The Dell touch monitors are now the hubs in our Connected Classrooms that unleash new synergy around the software tools we were already using.”

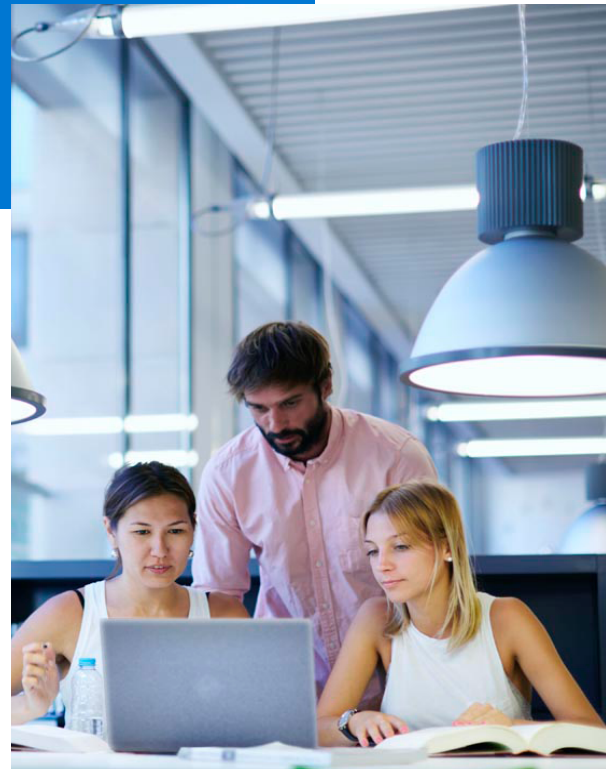
Adding another dimension for collaborative learning

In MSU Billings’ new Connected Classroom design, remote or in-person students can see and interact with a virtual Microsoft Whiteboard, including simultaneously adding annotations and rich media, running applications, and sharing files via the OptiPlex desktop. “The Dell touch monitor solution provides a familiar, collaborative computer environment with the software we use daily and new capabilities,” said Weisz.

MSU Billings deployed its new Connected Classroom solution in its new Yellowstone Science and Health Building, in five classrooms, 13 labs, conference room, and the dean’s office.

Engagement and efficiency you can touch — and measure

To showcase this new solution, the university’s IT team set up a mock classroom with the new technology and partnered with several expert faculty members. They became solution ambassadors and demonstrated the technology to their colleagues in two-hour training sessions. “The technology provided simplicity in a complex transition, a way to forget about the mechanics and focus on student experiences,” said Aaron Mertes, assistant professor of rehabilitation and human performance at MSU Billings. “Instead of spending a lot of time turning different hardware on and off, changing screens, and worrying about compatibility, this one tool did it for me.”



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Faculty members who teach in the Connected Classrooms are saving time because they no longer spend 5-10 minutes before each class replicating the same information on traditional whiteboards. Instead, they open a file, image, archived whiteboard, or template whiteboard and can immediately begin. Weisz explains, “Faculty can instantly pick up where they left off last class. And being able to spontaneously present rich media content and annotate directly onto shared materials enriches the class experience for everyone.”

Pride and excitement

MSU Billings’ new “clean and modern” Connected Classrooms are generating pride and excitement. “Our students expect a certain level of digital sophistication,” Weisz says. “The advanced technologies in our Connected Classrooms give staff and faculty the integrated experiences they expect and will help students better prepare for technology they’ll see in the workforce.”

Quickly scaling a model that works

MSU Billings plans to expand its current Connected Classroom solution so that it’s in nearly 100 of the 170 classrooms on campus. The university is also planning to roll out the solution with 86-inch 4K interactive touch monitors in its auditoriums, and with 55-inch 4K touch monitors in several tutoring rooms. “When we unveiled our Yellowstone Science and Health Building, the other departments on campus wanted to update their classrooms with the new design,” explains Weisz. “Other institutions in our state have reviewed the design and are interested in similar solutions. We all see how our Connected Classroom brings a futuristic learning experience to more students regardless of where they are, so they can get the college education to realize their goals.”