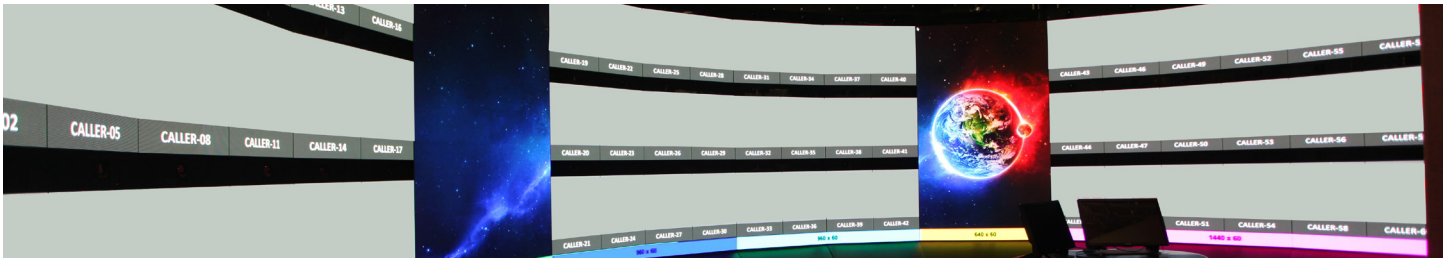
McCann Systems

AUDIO VISUAL SYSTEMS DESIGN AND INTEGRATION



Higher Education Distant Learning | Boston, Massachusetts

Collaboration technologies come together like never before to create an unprecedented e-learning solution and classroom of the future. McCann Systems recently partnered with one of the country's most distinguished ivy-league learning institutions to create an engaging and immersive digital amphitheater to set the standard for real-time learning.

The unique digital learning initiative was designed to reproduce the intimacy and synchronous interaction of the physical classroom. In the custom-designed studio, a high-resolution videowall mimics the amphitheater-style seating of a university lecture hall, with up to sixty participants displayed on individual screens simultaneously. Dozens of sightline studies were conducted to ensure a natural and personal viewpoint for both the student and the professor.

McCann Systems engineered the system to manage sixty simultaneous calls, each with its own camera feed, and control them without one single break point. From inside the studio, the professor's experience is just as personal and interactive. Each individual participant screen uses 2.5mm Christie Digital LED and sized to show each student close to, or slightly larger than life size. This mammoth wall is composed of over 6.2 million pixels for optimal clarity from any position on the videowall.

The high-tech, collaborative teaching wall features two 80" J-Touch Blackboard monitors which are visible to students from both their perspective camera and also from their personal user interface, designed by X2O Media software. If a professor prefers, content can be controlled and created from a central podium integrated with standard laptop connections, control panel, and confidence monitor.

Multiple in-studio cameras provide numerous views for remote learners. Aside from their own student-to-professor video feed, the control room can choose HD views from either side of the main videowall. A handheld camera operator was added during the early studio testing phases to help convey the dynamic energy of the space.

All of the video feeds through the studio are over fiber and all amplification for the system is located in the rack. An intricate CobraNet system feeds the signal to the studio-housed amplifiers and is comprised of ten VLAN's expertly engineered to transmit data without overloading any one network.

Throughout the system integration, it was clear that the production of each class session would require a multifaceted control hub. Initially designed for a four-person team to oversee the technical aspects of each session, this central nucleus evolved into a fully staffed theater-grade crew.

McCann Systems designed a highly sophisticated Evertz routing and distribution infrastructure to pull the sources from each point to point call for processing. Operators and producers stay on top of the action in the classroom to choose the appropriate layouts which can include a two, three, or four person debate mode.

By working with the client throughout the concept development stages, McCann Systems was able to design and engineer this classroom of the future based on the university's needs and produced a system that would propel this digital environment to the forefront of technology and remote real-time learning.