



Georgetown University pioneers immersive telepresence as an educational tool

Polycom immersive telepresence solution is connecting remote classrooms and enhancing the classroom experience for Georgetown University in Qatar.

The Challenge

To link two campuses on two different continents in two different time zones to create one realistic classroom experience.

The Solution

The Polycom RPX™ 218M with four HDX 9002 systems in Doha and the Polycom RPX™ 210M with four HDX 9002 systems in Washington DC.

The Results

A 'global classroom' based on an immersive telepresence experience that facilitates 'natural' collaboration between the classrooms to bring students and teacher closer together in one, interactive, real-time experience.

Georgetown University in Washington, DC, is pioneering state-of-the-art telepresence technology to extend its educational reach and bring communities of students closer together. Founded in 1789, Georgetown University is a thriving international research university with faculty, staff and students from 50 US states and more than 130 foreign countries.

During 2007, the University decided to research the possibility of creating a 'global classroom' using telepresence technology. Having recently opened the School of Foreign Service in Qatar (SFS-Qatar), the first branch campus of the world-renowned Walsh School of Foreign Service at Georgetown, the University was looking to find ways to better connect these physically distant campuses. Located in Doha, the capital of the Middle Eastern emirate of Qatar, Georgetown's Qatar campus provides a 4-year undergraduate degree in international politics to students from the Middle East and around the world.

James Reardon-Anderson, dean of the School of Foreign Service in Qatar explained: "The 'Global Classroom' initiative is designed to help provide a consistent learning experience between geographically separated campuses. It is intended to give students from different countries and cultures an opportunity to talk and learn directly with one another, and weave together the two Georgetown campuses in a way that had not been possible in the past."

Once the decision was made, IT teams from the University - both in Washington DC and in Qatar, visited three telepresence vendors not only to check the full extent of their offerings but also to test, in real-time, the effectiveness of each system. As a result, each system was tested under different environments to ensure that the technology finally selected would enable the University to use improved teaching methods and provide the best classroom experience.

Responsibility for implementing the initiative fell to Johnathon Chapman, Chief Information Officer at SFS-Qatar.

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"We were looking for a telepresence solution that would provide a realistic classroom environment with camera technology capable of changing focus on students when they asked questions and display digital content to all participants with the least amount of intervention," Chapman said. "Most telepresence solutions in the market are geared towards the boardroom and not the classroom. This restricts the degree of communication between professor and students which means that they are unable to interact as easily as they would in a real classroom."

Chapman pointed out that the University had been using standard video conferencing equipment in the past to link its classrooms in Qatar and Washington DC, "but there were limitations that included inflexibility of where the professor could position himself. Also, his view of the students in Qatar (or the students' view of him) limited his interaction with the students since he was unable to identify them. There were also limitations in the number of students that could attend any one class."

Based on its ability to deliver an experience that was as close as possible to a real classroom Polycom won the tender with its Polycom RPX™HD Immersive Telepresence System. Polycom's distributor in the Middle East, FVC and TechnoQ, Polycom's authorised reseller in Qatar, were contracted to supply and install the system at the School of Foreign Service in Qatar. The complete Polycom RPX™HD Immersive Telepresence System solution included the RPX 218M system in Qatar and the 210M system in Washington DC along with 8 HDX 9002, true high definition video with 1280 x 720 video resolution at data rates from 1Mbps.

Using a high-bandwidth Internet2 network provided by the Qatar Foundation, the Polycom telepresence solution went live in February 2008, making it the first university in the Middle East to adopt immersive telepresence as an educational tool.

The system is currently being used in one undergraduate course titled 'Social Entrepreneurship in the Middle East & United States' being taught from Washington, DC and accommodating up to 18 students in tiered seating in Qatar and 10 students in Washington DC. After overcoming the initial surprise of using the new technology, students from both campuses are now engaging in real-life classroom discussions.

John Taylor Hebden, a Student Affairs Officer and Teaching Assistant at SFS-Qatar gave the perspective of students and faculty in using the Polycom telepresence technology as a learning tool.

"This technology is so realistic it makes you feel as if you are sharing a seminar room," Hebden said. "You do not get a sense that you are talking to a screen at all."

The Polycom implementation has been so successful that the University is currently evaluating ways to expand the use of the system for additional courses, as well as student meetings and more. Evaluation will be based on feedback from students and professors and their experience in the classrooms.

"This truly opens the doors between Washington DC and Doha," concluded Reardon-Anderson. "This is at the heart of what we do as a global university. It's exciting how many possibilities there are for powerful interactions in the future."

Reardon-Anderson hopes to see more schools adopting the same system as it opens more venues for global academic interaction. According to Reardon-Anderson, connecting to universities from Southeast Asia is also a smart use of time zone differences, as it does not compete with the time zones in the United States. Therefore, SFS-Qatar students can enjoy the benefit of connecting to universities in both regions on the same day.

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