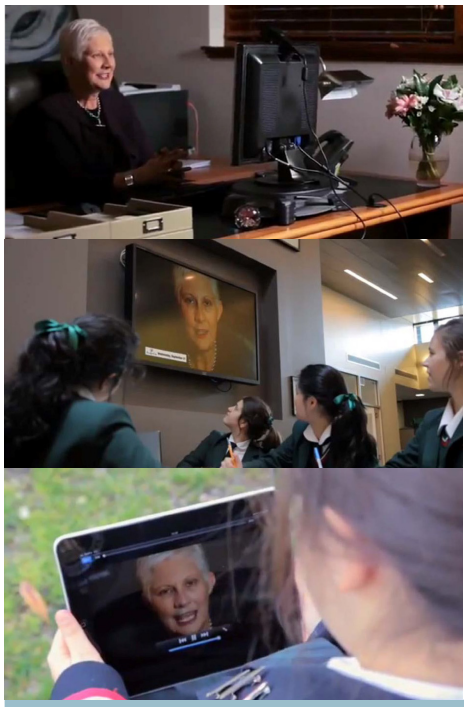

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School engages video for global learning and collaboration

"When I or someone else needs to address either the entire school or certain sections of the school, we can create and send videos as easily as you would create and send an email."

– Vicki Waters, Principal, Pymble Ladies' College

Located on Sydney's upper North Shore, Pymble Ladies' College (Pymble) is a private, independent school, providing a progressive learning and teaching environment for girls. Pymble has more than 2,100 students across five separate schools, ranging from Kindergarten to Year 12, each with its own precinct on the one campus.

Critical issue

Pymble has always embraced technology to promote an exemplarily teaching and learning culture, thereby positioning itself as a leader in the education of girls. Over the past 20 years, the college has steadily developed a strong IT infrastructure, building gigabit-speed local area networks and 100 megabit desktop connections, and has worked with Cisco to implement an Education Grade Network across the campus. This has provided Pymble with a powerful infrastructure for current needs with the flexibility to expand the network, providing ample capacity to deliver new video-based learning platforms, IP telephony, Unified Communications and IP Based Security Systems.

The college recognised the growing importance of video in its daily activities: engaging students within and beyond the classroom; communicating to the Pymble community across all school levels; sharing student interaction, learning collaboratively, both locally and globally; and developing staff members' professional skills and knowledge.

"Our students have grown up in an era of connected digital media, where anyone can watch content and communicate where and whenever they choose," says Vicki Waters, Principal of Pymble. "It was vital that we entered this space and that the school became an integral part of our students' brave new digital world."

What the school required

Pymble needed an integrated video solution that could distribute and stream media content and communications across the distinct levels of the school and beyond, with an option for easy access to any archived recording from any device.

In particular, it wanted to replace traditional barriers to learning, such as teaching from hardcopy textbooks in a classroom, with their teacher as the only expert they had access to, with a new model that used video to enable live interaction across a global community to encourage creating and sharing of experiences and resources.

What it implemented

The college implemented the full range of Cisco video and collaboration technologies. Each technology was used for multiple purposes: WebEx and telepresence for teaching, and meetings and Digital Signs for notifications.

Pymble invited Cisco to address all its needs at once by implementing a high-performance video distribution platform that connected to all network endpoints and devices and delivered video quickly, reliably and seamlessly, live or on demand, whether in the library or sitting under a tree in a group.

"We didn't see the point in introducing video gradually," explains Rathika Suresh, Pymble's Director of IT. "We wanted to launch it with a big bang."

This meant combining a suite of Cisco products and services to build a single integrated video, voice and data delivery system. Key components included:

- Cisco TelePresence – IP network links to connect different locations with high-definition video and spatial audio, creating a single virtual conference room for face-to-face collaboration.
- Cisco WebEx – industry-leading web conferencing with voice, video, document and desktop sharing.
- Cisco Digital Signs – a comprehensive solution for flexible and centralised management and publishing of compelling digital media to networked, on-premise digital signage displays.
- Cisco Show and Share – a secure, collaborative webcasting and video sharing application that lets users share ideas and expertise.
- Cisco Media Experience Engine (MXE) – powerful and flexible network appliances that provides media transformation services to discover, connect, record, enrich and deliver video.

According to Suresh, Cisco MXE, part of Cisco's Media Transformation solutions, is instrumental in standardising video content, transforming footage that students capture on any device so it can be shared on any device or application such as Show and Share, Digital Signs, the college's collaborative portal and video community of teachers and students.

MXE also automatically enhances the video, including colour correction, speech-to-text-tag clouds, meta-data capture and graphic overlays. The source or format of the file does not matter any more as Cisco MXE takes care of the output.

"We did not need to approach anyone else, Cisco had all the answers," says Suresh.

Outcomes for the school

1. New collaborative ways of learning

Students no longer need to rely only on textbooks to learn. They can use video to engage with subject matter in new and exciting ways.

"We cannot give our students pieces of paper and expect that will suffice," explains Suresh. "Video creates a richer, more engaging experience, which brings topics to life."

With the new Cisco digital media network, classes can centrally access any form of video, or just segments of videos, from a digital library and share it among any group on any device, regardless of whether the video is one minute, one day – or even months old.

Students can also take virtual tours and excursions to learn from and about people and places outside the classroom. They can talk to and interact with experts in particular fields from anywhere in Australia or across the world eliminating the constraints of distance.

"We can connect, in real time, to authors, geologists, scientists and so on," says Waters. "We've even had divers communicating from the Great Barrier Reef itself. We have also students paying virtual visits to NASA, where they've been able to talk with physicists and astronomers."

Students and teachers don't need to be confined to the classroom – mobility is key. The new Cisco digital media network allows video content to be streamed from any device, such as a mobile phone or tablet, to display devices such as Pymble's high-resolution digital signage around the school or student laptops. Students and teachers can participate live or watch later.

Essentially, there are no restrictions – material and resources are available to students and teachers when they need them using any device.

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"It's an exciting place, where our young people are connecting anywhere and at anytime with leading experts around the world," says Waters.

2. More effective communications

Pymble uses the network to communicate effectively with the student population. Waters, in particular, prepares regular video messages addressing important school matters, which are transformed by the Cisco MXE to play anytime and anywhere on Digital Signs, in Cisco Show and Share on desktops, and on mobile devices brought onto campus by students and staff.

"When I or someone else needs to address either the entire school or certain sections of the school, we can create and send videos as easily as you would create and send an email," she says.

The college can also securely publicise or replay events, such as the school play or a musical recital and display notifications and celebrations on the digital signs.

"Students are walking around at lunch and recess interviewing and filming their peers on a particular topic, capturing the footage and showing it during assembly as digital news," says Suresh.

In addition, students are creating their own videos as part of their school assessment, which they can display to their class or on the digital signs.

3. Professional staff development

Teachers are embracing video for professional development. For example using video communications technologies to collaborate with other teachers.

"We see video training as an essential tool for peer-related professional development by giving teachers access to a rich pool of material and enabling them to collaborate and share resources with their counterparts across the state, country or world," says Waters. "We even use video for collaborative music discussion with universities."

4. The way of the future

Pymble's digital journey is only beginning. It already has plans to expand its digital video reach by communicating with parents – for example by streaming a student graduation ceremony live to the web – and prospective students and their parents.

"We must invest in video here and now," says Waters. "We must embed this communication and creative tool in our teaching and learning processes. We want to be among those leading the way."

The college also uses Cisco Physical Security solutions to monitor the college grounds and keep an eye on student welfare. It is also evaluating Cisco's Cius tablets and its UMI home telepresence system as part of a broad, long-term digital media program.

"If you're building a learning culture, it's about everyone being a learner in that space," says Waters. "It's not just an environment in which students learn and teachers improve their skills, but where we are at, as a global organisation – that is, Pymble being progressive, standing at the forefront of teaching and learning."

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