Technology

Screen gems

Online video content has become a significant and engaging part of teaching in many classrooms.

by Cynthia Karena

Briefly
- Many teachers are using short, targeted online video clips in their lessons.
- The National Broadband Network can transform the way video is delivered to classrooms.
- Teachers and students can make their own video clips for viewing via YouTube.

As internet access improves, online video content is taking over from DVDs and videotapes in the classroom, allowing teachers to use shorter, more targeted video clips in their lessons.

Prue Miles, media and arts teacher at Indooroopilly State High School in Brisbane, still uses DVDs, but increasingly downloads programs from the internet.

"Many institutions are providing video resources online," she says. "For example, Brisbane's Gallery of Modern Art has interviews with artists, and curators talking about exhibited work.

"Many videos are free to download. There is very little content we would pay for because we don't have the budget."

Miles can embed links to online videos in slides, which students can access from their laptops anywhere, anytime from the school's virtual classroom.

Indooroopilly does buy some programs from ClickView, which has video libraries featuring content from producers including Video Education Australia, Marcom Projects and National Geographic.

"The days of running a 45-minute video are gone," says ClickView CEO Harvey Sanchez. "Teachers are now looking at five to 10-minute clips to support a lesson. For example, with Pythagoras's Theorem, a clip can be shown to reach out to students visually."

Miles screens mostly video clips rather than watching entire films.

"In Year 11 music we would access musicians' websites to watch clips, or if we discuss mise en scène in Year 10 media, we watch a small piece of a film."

There are still times when students watch complete films, such as when the Year 10 media class compares and analyses films from different countries.

But teachers at Indooroopilly don't stream video (see breakout) because the school doesn't have the fast internet connection required and it takes too long.

The main limitation is bandwidth, says Sanchez. Where the bandwidth is low, ClickView delivers low-resolution video.

Broadband transformation

Willunga High School, near Adelaide, is connected to the high-speed National Broadband Network and streams all its video, says principal Janelle Reimann.

"The NBN has transformed the way we deliver content and the way we teach. We find that, with videos, students are more engaged in their learning," she says.

"Before the NBN, the connection was inconsistent and would drop out all the time. The NBN gives us consistency of upload and download. More than 800 students can get onto the same site and download videos without it dropping out."

The school started with two terabytes of data a month, but "students get excited and download everything" so it has moved to a bigger plan, says Reimann.

The $250-a-month two-terabyte plan has been replaced with four terabytes for $400. "Not bad, given that there are 1000 students."
Downloads, streaming and the NBN

There are two ways to watch videos on the internet. They can be downloaded to a computer and viewed, or they can be streamed. Streamed video is viewed as it comes to the computer. It’s like an online radio station streaming music; people typically listen to the music live and don’t download it.

The faster the internet connection, the higher the quality of video that can be streamed.

The National Broadband Network improves bandwidth, providing a “fatter pipe” for data to travel along when compared to the skinny pipe of a dial-up connection.

The NBN enables schools to download or stream high-definition videos from the internet. It will significantly improve the quality and speed of broadband access currently available to most Australian schools.

The NBN gives teachers at Willunga the flexibility to stream videos as soon as they want to use them, says science and maths teacher Judith Boyle, who is also the e-learning coordinator.

“We used to download and save YouTube clips for lessons, but if the lessons go down another path we can now screen another video immediately. Or if students have a query they can access a relevant video straightaway.”

Doing it yourself

Teachers and students at Willunga also create videos. Teachers further explain their lessons and students make video reports as well as written reports.

This year the school’s student representative council prepared a video that was uploaded to YouTube and viewed by individual classes prior to voting.

“In the past [the candidates] would stand in front of a whole school assembly and make speeches,” says Reimann.

Schools with fast internet connections like Willunga’s can access free sources such as YouTube’s education segment.

There’s also EnhanceTV Direct, which provides an online streaming service delivering broadcast content to schools and free study guides. The content is curated so it is age appropriate, says manager Jamie LeHuray.

“It’s a persistent archive, available permanently, so teachers can create lessons based on the material without worrying that it will be taken down,” says LeHuray.

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Resources

- www.youtube.com/education
- www.nbn.gov.au
- www.cisco.com
- www.enhance.tv.com.au