

Webcams Have Arrived

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With the recent excitement surrounding the eagles being shown on the British Columbia's Hornby Island via live webcam streaming, the use of technology to teach environmental conservation has been highlighted. Up to three million viewers per day watched with eager anticipation as the parent eagles took turns nesting on two eggs, one protecting the eggs while the other hunted for food.

Doug Carrick, who set up the webcam to observe the nest, received both federal and provincial government approval to place the webcam about forty meters up his neighbor's tree. A cable attached to the webcam sends the continuous signal to his television.



Hornby Island Eagle (cbc)

The previous year he had the webcam just connected to his own television, but this year he shared his excitement with hundreds of millions of viewers around the world. He linked his system to the internet and notified his sister-in-law in Australia of the website and from there the interest spread. Carrick hoped that this view into the lives of the two eagles would make people think about the impact that they may have in threatening the species' habitat.

As far back as 1995, researchers such as Matusevich of Montgomery County Public Schools have been reporting on how technology impacts learning theories. She stated that "Modern technology is significantly impacting society and our daily lives," and continued, "Today, a new wave of technology is beginning to cause repercussions in school that will forever change how students are taught." As part of her discussions on constructivist learning theories, she suggested that children learn through tasks that have real-world relevance and utility that integrates these tasks into the curriculum.

Mann, 1994, stated that "the use of new technologies in an educational setting has caused the theory of learning, constructivism, to receive new attention. Students in these settings become empowered by gaining access to real data and working on authentic problems." Since that time we have seen huge advances that allow us now to access resources that, even just a few months ago, were not available to teachers. The big question is not finding the technology but rather finding teachers that are willing to keep up with the advances and make regular use of these advances in ways never before envisioned.

One piece of technology that has recently grown to maturity is the webcam. While webcams are very simple in their design, the technology that allows multiple, simultaneous broadcasting, especially over a medium such as the internet is very complex. As networks speed up and become more reliable, the broadcasting of useful information, such as the observance of the Hornby Island eagles, becomes functional so that teachers can use them to teach students from inside the classroom, as well as lessons far from the classroom. Students can go places that are deep in the ocean or high in an eagle's nest.

Studying our environment using webcams can, with a bit of pre-planning, add tremendous impact to a lesson. Sites such as *PCs for Families* have safe webcam sites. This site is divided into four categories. “The Natural World” shows earth and space in a myriad of wonderful images. All manner of natural phenomenon can be captured by webcam and turned into a powerful visual aid. “The Man-made World” shows views of city structures, medieval churches and other creative views of man-made structures. “Moments in History” allows viewing today of important places that were milestones in history. “The Something Special” section has unusual sites that are not categorized.

One of the most frustrating things about using webcams on the internet is the ever-present risk of ending up in sites that are quite unsavory. As a teacher, only fully explored safe sites should be made available to students. There are many sites that are worth exploring. Listed below are some possibilities:



View of Ant cam

Leafcutter Ants	- www.nhm.ac.uk/kids-only/naturecams/antcam/index.html
Flesh-eating Beetles	- www.nhm.ac.uk/kids-only/naturecams/beetlecam/index.html
Mont Blanc	- www.webcam-montblanc.com/webcam
Sharks	- www.seaworld.com/seaworld/fla/of_shark_webcam.aspx
Yellowstone	- www.yellowstone.net/webcamlive.htm - 10k
The Sun	- www.worldlive.cz/en/webcams-155-usa-716-webcam-sun
Coral Reefs	- www.fisheyeview.com/FVCam.html

Webcams have arrived. Most of our students are familiar with them so let's put them to good use, learning about our beautiful planet and all the wonderful things that God wants us to enjoy. Maybe you could even set a webcam site of a real aquarium as your screen-saver!