infotech by annette lamb and larry johnson

video and the Web, part 1: more the flickers on the screen

In just 10 years, the Web has shifted from a text-only delivery system to a dynamic multi-media world of images, graphics, animation, and sounds. According to journalist Jon Van (2007), web videos are pushing Internet capacity to its limit. While many school libraries are uploading, downloading, and streaming their way to new levels of teaching and learning, others are limping along with limited storage space, filtered content, and snail-paced streaming.

The teacher-librarian plays a critical role in helping young people and their teachers make effective and efficient use of video in teaching and learning.

NEED IT

Before you start "Googling" for movie clips, think about whether video is an effective format for meeting a learning need or addressing a specific curriculum standard. As you explore video on the Web, consider the many ways it can support teaching and learning.

For instance, motion may be necessary to convey an idea such as how to swing a golf club or the steps in a process. It's also a great way to bring remote experiences into your classroom, such as traveling through space, exploring a coral reef, or analyzing a historical reenactment. Young people can explore other cultures through interviews and "armchair" tours. It is even possible to explore microscopic and imaginary worlds using special cameras and animation software. Through slow motion or time-lapse videos, students can examine the development of a plant, animal, or landform.

Teacher-librarians can identify those curriculum standards that would benefit from motion pictures.

FIND IT

There are thousands—make that hundreds of thousands—of videos on the Web. From network television programs to locally produced video clips, what is the most effective way for you and your students to find quality video online?

Start by going directly to your favorite web sites to seek out videos. In other words, if you are looking for historical footage, try the Library of Congress. Use the NASA Video Gallery for space footage and ARKives for animals. Explore such television web sites as PBS, CBC, and BBC. For additional ideas, skim the resources at Lamb and Johnson's (2006) Multimedia Seeds web site.

It is likely that your favorite search engine now has a video option. Search tools such as Altavista Video, AOL Video Search, Google Video, and Yahoo! Video all offer an easy place to start. Also, consider specialty tools such as Blinkx that claims to be the world's largest and most advanced video locator.

Identify those words that will generate a successful search for your topic. In other words, if you are seeking short videos on simple machines, you may want to search for *lever*, *pulley*, *wheel*, and *incline plane* for specific examples.

Teacher-librarians can teach young people and teachers search strategies and techniques for locating videos to fit their interests and needs.

FEED IT

It is easy to become overwhelmed by all these new video resources. Consider using a web reader to track the newest materials. For instance, the DIGG web site seeks out the best new videos on such specific topics as education and creates a web feed for these videos.

Most of the video sharing web sites contain an RSS feed that allows you to subscribe to your favorite services. Rather than having to visit each site separately, you are notified of the new content. You can use web-based tools such as Bloglines or Google Reader or a computer-based tool like iTunes to keep track of your web feeds.

Most web browsers will indicate if an RSS feed is available for a particular web site. Look in the area to the right of where you type in the web address for the RSS feed icon (see Figures 1 and 2). The Internet Archive contains thousands of free moving images. Use their RSS feed to keep track of the latest videos from classic cartoons and full-length films to documentaries by young people.

Teacher-librarians can model the use of web readers for organizing blogs, podcasts, and syndicated video content.

FIGURE 1

http://www.archive.org/details/movies

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Note the RSS feed to the right of the web address.

SELECT IT

Just as you need to carefully select web sites, it is important to think about your criteria for choosing web-based videos. As you evaluate a web-based video, examine the web site hosting the resource and any background information that might be found on the page where the video is located. This can give you clues about the origin of the content. Also, look for information in the beginning and ending credits of the video. As you explore the options, ask yourself the following questions:

Authority. Who wrote, developed, and produced the video? Is it sponsored by a specific organization? PBS, National Geographic, and other well-known producers provide video segments as part of their web site content. It is more difficult to determine the origin of videos found at YouTube or other video sharing sites.

Objectivity. Was the video designed to be informational, instructional, persuasive, or simply entertaining? Is the content biased? Think about perspective. Is more than one view represented? An increasing number of web sites have emerged claming to be "pro-environment"; however, they sometimes only represent a particular viewpoint, such as the lumber or oil industry.

Authenticity. Is the information reliable and accurate? Know the source. It is easy for anyone with a video camera to invent content. Like evaluating print resources, young people are likely to believe what they see. It is important to find multiple resources that substantiate the claims and ideas presented in the video.

Timeliness. Is the information current or does it clearly identify the time period it represents? Tools allow producers to easily convert old films and video programs to a web-based format. Students often assume that video they find is "new" because it's digital; however, it may be decades old.

Relevance. Is the information useful? Think about whether you need this information. With thousands of videos available, it's easy to be overloaded with resources. Would a book, photograph, live demonstration, or short video segment be as effective as an entire video program? Look for videos relating to current events that might not be available in other formats.

Efficiency. Is this information worth the effort? How is the video accessed? Can young people link directly to the video or download the file? Think about the organization and speed of information access. Are special plug-ins or software needed for viewing? Does advertising on the web page or embedded in the video distract from the content?

Teacher-librarians can help young people and their teachers understand the importance of carefully evaluating web-based video content.

DEMAND IT

Video-on-demand has become a popular way to provide quality video to schools. Although some individual schools subscribe to these video services, many others are able to access them for free through state or agency agreements.

United Streaming provided by Discovery Education is a popular source for video-ondemand. More than 5,000 full-length educational videos and 50,000 contentspecific segments from producers like Discovery Channel, BBC, and Math Mastery are available. More than half of all U.S. schools are licensed to use their resources with their more than 30 million students. United Streaming is a comprehensive K-12 video programming service. However, in order to optimally use United Streaming, a school must have a network connection that can support streamed video or have the storage space to downloading files. Some schools, because of the required bandwidth needed, only allow teachers to download videos after 4 P.M. and before 8 A.M.

Schools with United Streaming service also have access to in-service "webinars" on topics like using Moviemaker to edit videos or how to place video clips within Inspiration and PowerPoint software. Many teacher-librarians have become involved in the promotion, in-service training, and facilitation of video in the classroom. They are also collaborating with teachers to apply the curriculum integration ideas provided by the service.

Schools without the bandwidth strength to stream video have may wish to purchase Library Video Company's Safari Montage, a plug-and-play digital video-on-demand system. The Safari Montage system includes an on-site server that contains more than 1,000 video programs from PBS, publishers including WGBH, Scholastic, A&E, BBC, National Geographic, Sesame Street, Weston Woods, Disney Education, and Schlessinger Media. With Safari Montage, the management, storage, and delivery of video content is based at a local, centralized server.

Teacher-librarians can facilitate the use of video-on-demand services by taking a leadership role in professional development.

ORGANIZE IT

Once you have identified quality sources of videos, think about ways to organize your findings. You will need a place to store downloaded videos. Also, think about ways to organize web links to streamed videos.

Video Storage. Rather than everyone downloading the same videos, create an easy way to share video on the school network. For instance, you might store videos by grade level, subject area, or standard. You may even want to organize lesson plans, presentation materials, and other resource files associated with units of study.

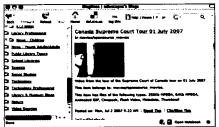
Hotlists. Create a master list of the best places to locate quality video on the Web. These links become part of your virtual library collection. For example, the National Geographic "Video" page provides access to the wide range of quality social studies and science videos from this well-known producer.

Create a hotlist of web sites that contain public domain or copyright-free videos that students can use in projects. For instance, the Naturescapes web site provides QuickTime movies on nature topics students can download for multimedia projects.

Pathfinders. Collaborate with teachers to integrate these video resources into classroom activities and inquiry projects. Pathfinders can be used to organize the videos a teacher might use in a unit of study. These web pages may also provide guidance for young people in using the materials to reach a specific learning objective. For example, you'll find lots of videos related to the civil rights movement online. In addition to linking to each video, provide a summary, annotation, and ideas for using the video in teaching and learning. Also consider web sites, books, maps, photographs, and other learning materials.

Open Media Network is a web site that allows users to download thousands of educational and public service programs including PBS, Democracy Now, Link TV, and many state public television stations. Young people can watch such shows as "Reading Rockets" and "Scientific American Frontiers." These videos could be incorporated into pathfinders on authors or science topics.

FIGURE 2



Another example of an RSS feed, next to the magnifying glass in the upper-right-hand corner.

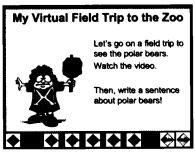
Teacher-librarians can collaborate with teachers on the most effective way to organize materials for teaching and learning.

USE IT

Although you will find lots of web-based videos, it is important to think about whether they will be usable in a library or classroom setting.

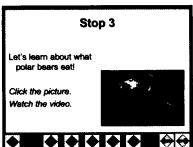
Image Size. Many web-based videos are displayed in a small window. In some cases, the video may be available to download in different sizes. Although you can sometimes increase the size of the window or show the video in full-screen mode, the image may be distorted. Before trying to

FIGURE 3



Using PowerPoint to create a virtual field trip to the zoo.

FIGURE 4



Within PowerPoint, video about polar bears is inserted to enhance the presentation.

use a video with a whole class, try it in fullscreen. If you are using a data projector, pull back for the largest possible image.

If the image is too large for a wholeclass activity, think about ways the video could be used with small groups or at a learning station. For instance, you could create a video-enhanced, virtual field trip to see polar bears at the zoo using PowerPoint (see Figures 3 and 4). Insert video segments on each slide along with directions or activities for students.

Distractions. Advertising, text, and other images on the screen can distract from views. See if you can show the video full-screen rather than within a web page. Keep in mind that many videos are now embedding short advertisements before the content. You may want to preload the video so it is ready to go.

All or Part. Many videos are available in segments. United Streaming often provides

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the entire program along with short, focused video clips. Even if you intend to use the entire program, think about identifying activities to go with each segment. For instance, you could show a 5-minute segment followed by a discussion about vocabulary or short writing activity.

Teacher-librarians can assist teachers in setting up their classroom to enhance the video experience.

INTEGRATE IT

Rather than simply showing a video to a class, think about how the movie fits into the entire lesson or unit. After watching the United Streaming video based on the book Why Mosquitoes Buzz in People's Ears, you might ask students to retell the story by sequencing still images from the using Inspiration software (Figure 5).

Motivate. Use video to jumpstart a lesson. Rather than starting a project with a list of topics, use videos to engage learners. The Ease History web site allows users to compare up to four short video segments at once (Figure 6). Students could compare video of four presidential news conferences over the past 50 years, then select one time period to explore in depth.

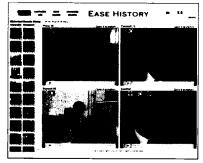
FIGURE 5



An example of using Inspiration software to have students piece together a sequence of images from a video.

Differentiate. Some students have difficulty starting a project totally from scratch. They may need concrete examples or starter resources to be successful. For instance, ask children to explore the ARKive: Images of Life on Earth web site and examine images and movies of an endangered animal. Their task is to choose the video that best represents the animal. Then write a script that can accompany the video to be used for a public service announcement convincing

FIGURE 6



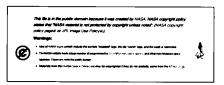
The Ease History web site allows users to compare four short videos at once.

people why it's important that this animal be saved. The "MyARKive" option allows you to bookmarks your favorite videos.

Repurpose. A video designed for teaching science might make a great prompt for creative writing. Adapting a video for an activity outside its original goal is called repurposing.

Seek out open-source materials that students can use in their multimedia projects. As you select and use these videos. look at any licensing information that is provided. For instance, each movie available at Wikimedia Commons provides a statement about copyright (Figure 7). The NASA clips are labeled as public domain.

FIGURE 7



An example of a copyright statement.

Teacher-librarians can collaborate with teachers to make video an integral part of an engaging learning environment.

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Van, J. (2007). Videos have net bursting at the seams. Chicago Tribune. www.chicago tribune.com/business/chi-070 2230143feb23,0,2687819.story

RESOURCES IN THE COLUMN

AltaVista Video Search: www.altavista .com/video/default

AOL Video Search: http://search.aol .com/aol/videohome

ARKives: www.arkive.org

Blinkx: www.blinkx.com/about

DIGG: http://digg.com/videos/educational

Ease History: www.easehistory.org

Google Video: http://video.google.com

Archive: Internet Movie Archive: www.archive.org/details/movies

Library of Congress: www.loc.gov/rr/ mopic/ndlmps.html

Multimedia Seeds: Videotape/DVD Collections: Video Clips: http://eduscapes.com/seeds/ collections/clips.html

NASA Video Gallery: www.nasa.gov/ multimedia/videogallery

National Geographic Video: http://video .nationalgeographic.com/video

Naturescapes Starters: Video & Image Starter Resources: http://tipt3.utoledo.edu/starters

Open Media Network: www.omn.org

Open Source Movies: www.archive.org/ details/opensource_movies

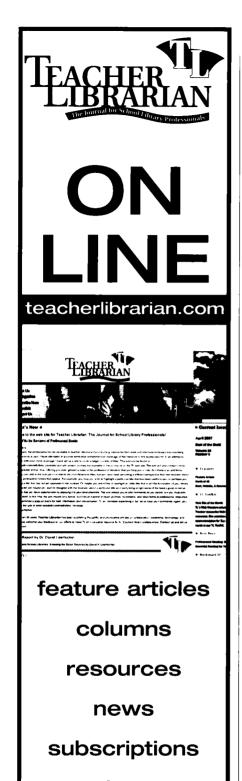
Safari Montage: www.safarimontage.com

United Streaming: www.unitedstreaming .com

U.S. Copyright Law, Title 17, Chapter 1, Section 107: www.copyright.gov/title17

Wikimedia Commons: Video: http://commons .wikimedia.org/wiki

Yahoo! Video: http://video.search.yahoo .com



and more

Our newly

designed web site

is coming soon!

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