

Learning Goals

Grades: 5–12

Technology: use appropriate technologies to organize, integrate, and apply information in problem-solving and communicating.

by **Mark Standley**

Digital Storytelling

Using new technology and the power of stories to help our students learn—and teach.

In Alaska, there is a rich heritage of storytelling. Four years ago, I collaborated with the Alaska Society for Technology in Education (ASTE) to integrate that storytelling heritage with technology standards in schools. The result was the iDidaMovie contest, designed to encourage students to

“Students understand how to shape information and ideas to best present them to any audience in the world.”

express themselves through video in categories such as Tell Me a Story, Teach Me Something New, Make Me Laugh, and Teaching and Learning in Alaska. Where we’ve come since then is a story by itself—one that crosses the Pacific Ocean.

Today, digital cameras, editing software, and electronic media outlets allow more students than ever to tell their own stories more easily, and to share them more widely. As Joe Lambert of the Center for Digital Storytelling says, “We are creating a new and profound mechanism of democratic communication.”

Combining the tools of today’s electronic media with great teaching methods has given educators a whole new way to give wings to a child’s learning. The cooperative learning process of debate, discussion, and reflection that students engage in as they work together to storyboard, shoot, and edit their digital stories is critical to the learning process. It also allows students with multiple learning styles to contribute and create knowledge. Educators can relate digital storytelling to standards in science, the arts, language, and math.

For instance, one iDidaMovie winner, submitted by Palmer Junior Middle School students in the first year of the contest, provided an explanation of the Bernoulli principle. In their team approach to creating video, students used animated and live-action examples of this key scientific principle. They asked viewers to question, debate, and think about its definition and application. The video project not only allowed students to create their own understanding of knowledge, but share it broadly through digital media with other students.

As with all teaching, structure and planning are critical. Time spent planning and organizing the quality of the digital stories will greatly improve student understanding and

retention of knowledge, says Meg Ormiston, president of Tech Teachers, Inc. “Without a structure, students will focus on adding images, music, and other elements instead of focusing on the content and organization.”

Digital storytelling is exponentially more powerful than other forms of storytelling because the digital format immediately makes a student’s knowledge available to a global audience. When they know the whole world is listening, students are motivated to create their best work. Interest and motivation are only half the equation; it also provides new opportunities for students to collaborate over distance and to expand learning communities on a national or even international scale.

Building and Expanding Learning Communities

Digital storytelling contests can create opportunities for students and educators to build learning communities within schools and districts, and across national or international borders. The Hawaii Department of Education’s IslandMovie contest, patterned after iDidaMovie, is tied more closely to the achievement of academic standards through digital storytelling. Under the leadership of Vicki Kajioka, director of Hawaii’s Advanced Technology Research Unit, the IslandMovie contest’s focus on standards allows the state to build an archive of Web-based, student-created resources to share with other students.

In one winning IslandMovie entry, students from Chiefess Kamakahelei Middle School taught other students about what to do in the event of a lockdown emergency. According to teacher Kevin Matsunaga, “Our students were concerned about the increase in violence in our nation’s schools and wanted to create a learning tool that their peers would actually listen and relate to. They took the procedures to follow in the event of a lockdown from our teacher handbook and rewrote them in their own words. They also spoke to a vice principal to gather more information. They created storyboards and a script following the Hawaii Content and Performance Standards in language arts.”

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Digital Storytelling (continued)

Storyboarding complete and script written, they shot and edited their video (thus meeting Hawaii Content and Performance Standards in educational technology), and placed the finished product on the school's Web site. The administration used the video in training sessions during staff meetings and showed it to the student body over the school's closed-circuit television system. "Basically they created content that was in their own language, that was at their level, and that was presented in an interesting way," says Matsunaga. "Not only did they make our school a safer place in the event of an emergency, but other schools are asking for copies to show to their students. They are reaching a much wider audience than they anticipated."

Entries in both the IslandMovie and iDidaMovie contests are judged by a panel of educators from Hawaii and Alaska. One benefit of this arrangement is that it separates coaching and assessment. Teachers can struggle with the conflict between coaching students to do their best, then turning around and evaluating the work. It can confuse students and give mixed signals about the teacher's role. With technology, the judges can do the assessment from miles away. This allows

the teachers to stay in a purely coaching role for their students. In addition, the judges loved learning about another education system and other cultures, and seeing the richness of ideas from students from another state.

The collaborative contest judging is just the start. Contest organizers are planning a future project in which students in Hawaii and Alaska create common stories about how whaling shows up in their culture. In Alaska, it's for subsistence; in Hawaii, it's for tourism. Long-term plans call for students from Alaska, Hawaii, and Japan to create digital stories together in what is called global project-based learning. The premise is to have students collaborate internationally to help solve regional or global problems. When students understand what makes great stories for audiences and how storytelling helps audiences learn, they can create messages that shape not only their own learning, but help teach others across the world.

Emerging Technologies, More Opportunities

Digital storytelling events like IslandMovie and iDidaMovie allow organizers to share student-created learning via streaming video on the Internet. Live video streaming, video conferencing, and handheld technology can give students new ways to create, organize, and communicate knowledge with their peers over long distances—and to use their digital storytelling skills to add context, narrative structure, and personality to video-conferencing events.

For instance, last year a group of students in the Bering Strait School District in Alaska created a piece that eventually aired on CNN about a whale buoy that floated into their village. This year, they used their video storytelling skills in a live video-conference with schools across their isolated rural district and on some islands in the Bering Sea. By using the elements of storytelling in video conferencing, students can create engaging and authentic dialogue and avoid the "talking head" pitfalls often associated with this medium. Students who have learned to organize images and ideas for audiences in asynchronous events on film or video only need to use the same skills for synchronous events with audiences from around the world.

Digital storytelling will be headed to handheld technology as well. Cell phones and handheld computers such as Palm and Window CE devices are beginning to offer users the ability to present pictures and movies. Software developers such as Peter Hoddie, founder and CEO of Kinoma, see an exponential increase in the use of movies on handhelds as the algorithms and compression rates improve for taking larger digital movies and allowing them to be viewed on handhelds. Students skilled in digital storytelling will welcome this new opportunity to display their work on devices that move around. They could, for example, create digital guided tours of museums that students could carry with them and view on their handhelds.

But no matter what technology is used, the real power of digital storytelling comes when students understand how to shape information and ideas to best present them to any audience in the world. The real power behind digital storytelling is the knowledge and ability to use new tools to teach the old tradition of storytelling. ◀

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Alaska Society for Technology in Education (ASTE)

<http://www.aste.org>

Information on the iDidaMovie contest, ASTE news, and conferences.

Center for Digital Storytelling

<http://www.storycenter.org>

Information about digital storytelling workshops, case studies, articles, and links.

Digital Storytelling Association

<http://www.dsaweb.org>

Information on the Digital Storytelling Festival, other organization events, and newsletter articles.

IslandMovie

<http://islandmovie.k12.hi.us>

Student digital stories, contest rules, and links to information on copyright and fair-use policies.

Kinoma

<http://www.kinoma.com>

Free trial download of software for producing or playing digital video on handhelds.

Tech Teachers, Inc.

<http://www.techteachers.com>

Presentation, professional development, and online resources in a variety of subject areas.

For an online version of this story with links, go to <http://www.ciconline.org/Enrichment/Teaching/learningwithtechnology/default.htm>.