The World of Through creating electronic personal narratives, students become active creators. Storytelling rather than passive consumers, of multimedia.

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magine you are watching the digital story that Kim, a 6th grader, has created for a language arts assignment. As the story opens, the computer screen slowly fills with photographs of Kim's parents, one from when they were young and another taken more recently. Instrumental music plays in the background as family pictures appear on the screen. We hear Kim's voice telling the story of how her parents came to the United States from rural China. They worked long hours, saved their money, and eventually created a good life for their family. Kim's narration explains that although she loved her parents, her relationship with them was often strained because they considered her unresourceful and unappreciative of her good fortune. Kim was tired of hearing about how hard life was for her parents as children.

Suddenly, Kim's story shifts to the fire that nearly destroyed her family's house. Somber music plays and photographs from the fire scroll by as Kim narrates details about the tragedy. Interspersed among the photos are Kim's original pencil drawings of her

family standing by a smoldering house.

However, this mood does not last long. The music becomes upbeat as Kim describes how her parents' tradition of hard work helped rally the family and restore the house. The screen shows before-and-after pictures of a room Kim helped rebuild. Her narration reflects on how the experience changed family members' perceptions of one another. Kim developed new admiration for her parents, and her parents were surprised and proud at how much she helped the family.

Kim's digital story is evocative and crafted with care. It's personal, yet it touches a universal chord. Her story incorporates authentic voice, problemresolution, narrative tension, a transforming realization, and other elements most of us expect from a serious story or movie. It is both a story and a documentary, incorporating real events from Kim's life and her reflection on those events. Kim plans to post her digital story on the Internet so that all of her relatives, including those in Asia, can watch it.

Kim created practically every element of this digital story. She took most of the photographs and scanned in older ones, created artwork, mapped and storyboarded the story, wrote the script, narrated the story, and created titles and credits. She even produced the soundtrack, using music composition software geared toward nonmusicians.

Ten years ago, a project like this would have been too complex and expensive to be within the reach of most 6th graders. But media-based stories are now everyone's to create. And with the Internet as an international stage, they are everyone's to watch and enjoy.

Alan Davis defines a digital story as

a form of short narrative, usually a personal narrative told in the first person, presented as a short movie for display on a television or computer monitor or projected onto a screen. (2004, p. 1)

As with any art form, digital storytelling continues to evolve to accommodate new technologies, purposes, and creative visions. The important question for educators to ask is, "What does digital storytelling offer education?" The answer is "a great deal," if we do two things: focus on the story first and the digital medium later; and use digital storytelling to enhance students' skills in critical thinking, expository writing, and media literacy.

Story First

Like many other teachers of digital storytelling. I welcome the advent of multimedia technologies. Such technologies give voice to a number of otherwise quiet students and to students whose skills don't fit the usual academic mold. Yet many students lack an intuitive grasp of how to use digital technology to enhance their stories. As the technology becomes more powerful, their stories become weaker, illustrating the truth of the saying "What happens when you give a bad guitar player a bigger amplifier?"

The problem for many students is their focus on the power of the technology rather than the power of their stories. Some students are engaging the medium at the expense of the message, producing a technical event rather than a story. Part of my task as a digital storytelling teacher is to teach students how to be storytellers. Two important components of my approach to teaching storytelling are story mapping and practicing written and oral storytelling before bringing in digital elements.

Story Mapping

Most approaches to creating a story that will eventually have elements of a film go directly from idea to storyboard development. A storyboard, used commonly in the movie and TV industry, is an ordered presentation of drawings or photos that each summarize a major story event. Looking over the pictures should provide an overall sense of what will happen in the story.

I recommend that teachers use storyboards as a way to help students plan the events of a story. But storyboards do not capture a story's central conflict, structure, and elements of transformation, which we must help students identify if they are to write stories with depth. For that, I have students complete a story map before the storyboard. A story map is a one-page diagram showing how the essential components of a story are incorporated

In front of the chroma screen...



In front of a fox!



In front of original pictures...



The grand finale!



In creating a digitally enhanced story, student Hannah Davis performs her story for the camera in front of a green chroma screen. Photos and artwork are later added to the background using chroma key editing.

into the overall flow of the narrative. In addition to helping students think about stories in terms of theme and character development rather than simply as a series of events, story maps enable teachers to quickly assess the strength of a story while it is still in the planning stage and to challenge students to strengthen weak story elements.

Although the nature and structure of stories vary for personal, artistic, and cultural reasons, I initially discuss stories as most of my students experience them through popular media. Such stories are typically made up of the following essential components:

- A call to adventure. Normal life is interrupted by a significant event, initiating a physical, emotional, intellectual, or spiritual journey for the main char-
- Problem-solution involving transformation. Characters encounter problems

that are solved through a personal transformation of some kind. Transformation can happen in a number of ways, including skill acquisition, maturation, learning, and self-discovery.

■ Closure. The story comes to a meaningful conclusion, not necessarily through a happy ending. Often, closure involves the main character's realization of something significant, a moral, or evidence that something or someone has changed.

A compelling digital story must incorporate all these components, as Kim's story does. Her struggle to understand the tragedy of the fire and her relationship with her parents gives her story authentic voice and makes it engaging for the audience. Had she left her own voice out and simply reported about the fire and her family's experience in the United States, she would have created an informative but flat report.

There are many story mapping tech-

niques. I tend to use the Visual Portrait of a Story diagram, which I adapted from the work of storytelling expert Brett Dillingham (2005). This diagram graphically outlines how a story moves through different elements from beginning to end and helps students visualize the progression of their stories—from the call to adventure, through development of the central problem and accompanying tension, to a solution involving character transformation, and finally to closure. As they plan their characters and action, students fill in how each element on the story map will be reflected in their story. The teacher can look over the story map and help a student strengthen weak story elements before the student starts writing.

The Visual Portrait of a Story is an excellent way to begin using story maps, and it continues to be one of my favorite story planning tools. But I have found that there is no single right way to map a story; each student may come up with his or her own way of graphically mapping the narrative for each storytelling project. A story map is not a box that a story needs to fit into, but a flexible guide aimed to help storytellers understand their stories and tell them in compelling, memorable ways.

Written and Oral Storytelling

I involve students in as much writing and oral storytelling as time allows before they begin incorporating their story into a computerized presentation with images and sound.

Writing is key. Even though students' final products are media-based, the most important tool used in the creation of a digital story is writing scripts and story treatments. The saying "If it ain't on the page, then it ain't on the stage," is as true for digital storytelling as it is for productions on Broadway. The written component of a digital story can take various forms, depending on whether the strongest curricular focus is on digital, oral, or writing skills. The final written form could be well-crafted

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bullets, a complete narrative, or a finely edited script, depending on which kind of writing the teacher wants to teach and assess.

Telling stories in traditional, oral fashion is also an important part of the preproduction process, and I make sure students have chances to do so before they work on the digital presentation. Oral storytelling is a powerful way for students to develop their own voices and discover what events and details are essential to their stories. Oral presentation is also an important way to prepare for the future: As video becomes cheaper and easier to use, it will become more commonplace for students to appear on film as they narrate a digital presentation.

Once you begin helping students craft their stories into multimedia presentations, they will need guidance in such skills as photography, scanning, and working with photos digitally. Teachers who are less experienced with multimedia technology—whom writer Marc Prensky (2001) calls "digital immigrants"—need not be intimidated. Most software provides tutorials, and a little coaching from a media-savvy colleague or older student should provide enough starting knowledge.

You'll need to get a few relatively inexpensive yet powerful tools and familiarize yourself with them. The hub of a digital storytelling station is a computer running software that can blend photos, titles, voices, music, and possibly video and animation. For a Macintosh computer, I recommend iMovie software; for a PC, I recommend MovieMaker. Both are free or inexpensive and easy to learn. One note of warning: Digital stories tend to take up a lot of file space and computer

memory, particularly if you incorporate video. Simple stories that use still photos, titling, and voice-over narration can be just as effective as video without overtaxing your computer.

You'll also need some peripheral tools, especially a digital camera, microphones, a flatbed scanner, and a video camera if you plan to add video. The scanner is crucial. Using a scanner creatively opens up a world of content because you can photograph and import into a digital story any object you can place on a scanning bed: medals, locks of hair, a dollyou name it.

Creating a Tie-In to Academic Skills

If digital stories are going to survive in education, they need to be tied to the curriculum and used to strengthen students' critical thinking, report writing, and media literacy skills. In creating and presenting digital stories, I advise educators to think in terms of a continuum anchored by "story" on one end and "analytical report" on the other, and to aim for the middle. Kim's project, for example, is part personal story and part expository report about her family heritage and her house fire. I have seen digital stories used to combine storytelling, critical thinking, and report writing in all content areas. The following examples show how the problem-solution story component can morph into its academic counterpart: inquiry-discovery.

Making a ball roll. To demonstrate their understanding of the geometry of circles, students at Molalla Elementary School in Oregon created an animated story showing how to make a ball roll on the beach. As the story unfolds, the narration tells us that the students

encountered a problem. The ball skids along the sand instead of rolling. The students clearly explain their error and describe how they developed a more mathematically sound approach to their project, applying their understanding of the nature of spheres to make the ball appear to move more naturally. In the end, the ball rolls.

Superbugs. To demonstrate their understanding of superbugs (drugresistant bacteria), two preservice teachers at the University of Alaska created a digital story called Bob's Battle, using primarily stills with voice-over narration. Bob tries to discover why he can't manage to shake an illness despite treatment from his doctor. It turns out that Bob did not complete his full course of antibiotics and has created a colony of superbugs resistant to his medication. The story is packed with scientific illustrations, diagrams, and data that support the narration. In the end, Bob admonishes the viewer, "Don't mess around with antibiotics."

Although these are clearly academic reports involving the presentation of factual information, their use of story elements keeps them from being only reports. The story characters faced problems and were transformed by learning. If the students had not encountered a problem making the ball roll, or if superbugs had been explained without the benefit of Bob's journey to understand his illness, these presentations would have been less engaging to both storyteller and audience.

Media Literacy

Creating digital stories is a perfect opportunity to engage students in media literacy, in learning about how the media influence our perceptions of the world (Goodman, 2003; Tyner, 1998). Stories are enjoyable because we give ourselves over to them; this is also what makes them dangerous (Kay, 1996). By their very nature, stories require us to suspend our disbelief and be swept away by their narrative. Yet

students need critical media skills in a world overwhelmed by story-based media, much of which views their age group in terms of commercial market share. We want students not only to learn with media, but also to learn and think critically about media. We want students to understand that the difference between a successful digital story and an effective advertisement is largely one of purpose.

Digital stories provide powerful media literacy learning opportunities because students are involved in the creation and analysis of the media in which they are immersed. When

Through creating narratives, students develop the power of their own voices.

students do the hard work of marrying story and technology to express themselves to others, they can see more clearly the persuasive nature of the electronic culture in which they live. Such a metaperspective of media does not develop naturally, however. It is hard for students immersed in a project to "zoom out" and see the larger picture of media impact. Teachers who want to include a media literacy component in a digital storytelling project need to do so deliberately at the project's outset. (Contact the Center for Media Literacy at www.medialit.org for ideas and resources on teaching media literacy.)

Tapping Dormant Skills

As digital storytelling enters the academic mainstream, the technique shows great promise. Creating a digital story taps skills and talents—in art, media production, storytelling, project development, and so on—that might otherwise lie dormant within many

students but that will serve them well in school, at work, and in expressing themselves personally. In addition, digital stories develop a number of digital, oral, and written literacies in an integrated fashion. This technique takes advantage of the fact that students are comfortable with narratives (Egan, 1986) and attracted to digital enhancements that sharpen their critical thinking, research, and writing skills. Through creating narratives, students develop the power of their own voices and become heroes of their own learning stories. Most important, digital storytelling helps students become active participants rather than passive consumers in a society saturated with media. EL

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Author's note: For more about digital storytelling, visit www.jasonohler.com /storytelling.

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