

Mobile Digital Storytelling

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In the nineteenth and twentieth centuries, most students and teachers in schools were sharply limited in the potential audience for which they could share their ideas and publications. Gone are the days when the top destination for exemplary student work was the family refrigerator. The potential audience for student work has changed dramatically in the 21st century with the advent of read/write web (web 2.0) tools like blogs, wikis, social networking websites, and video publication venues like YouTube. The ability for anyone with access to a web browser to publish text, audio, and video on the global stage of the Internet is a disruptive, challenging, and empowering phenomenon. In the context of digital storytelling, a variety of tools are available which permit learners of all ages to constructively share their voices and perspectives via the Internet using free website tools, readily available technologies like cell phones, and relatively affordable commercial hardware tools like portable audio recorders. This article explores several options for mobile digital storytelling.

WHY MOBILE DIGITAL STORYTELLING?

Regardless of the grade level(s) of students and the content area in which you teach, there is great potential value in inviting students to “retell” and synthesize their knowledge and ideas about different subjects as digital stories. Student PowerPoint presentations sometimes remain at the lower, “knowledge and comprehension” level of Bloom’s Taxonomy. Digital storytelling assignments are most effective when they invite students to analyze, apply, and evaluate ideas in CREATING an authentic, digital knowledge product which reflects their understanding of studied concepts.

The human brain is wired to remember stories and particularly well-suited to remembering concepts for long periods of time when visual images are also used to convey meaning. Dr. Lynnell Burmark, in her published books, articles, and presentations, makes a compelling case for emphasizing visual literacy in formal as well as informal educational settings (www.lynnellburmark.org/a_whyvisualliteracy.asp). According to Dr. Burmark, our brains process images over sixty thousand times faster than text alone. When students not only view or “consume” digital stories and media created by others, but take their learning to “the next level” by authoring and creating their own digital stories about studied content, their long-term transfer of studied ideas and concepts can far exceed the short term retention more common with “traditional” assignments like worksheets and study guides.

Digital storytelling can therefore be used not only in pedagogically powerful ways to improve student learning and achievement, it can also be a great deal of fun! While students’ access to technology tools (computers as well as microphones, audio and video

recorders) is generally limited in most schools, the options for mobile digital storytelling at home or “in the field” are now broader than ever. By permitting students to record audio interviews and reflections from home or in other locations away from school, learning can expand beyond the traditional “boundaries of the bell” and provide opportunities for ideas to be recorded and shared in powerful ways not possible in a strictly “face to face” traditional classroom setting.

CELL PHONES AND POTS LINES AS MOBILE RECORDERS

School district policies regarding cell phone use by students vary considerably both between and even within some Texas districts (<http://edlaw.jot.com/DistrictPolicies>). Cell phones are becoming increasingly ubiquitous in many schools, however, particularly at the secondary level. According to Lee Rainie, Director of the Pew Internet & American Life Project in 2006, “Some 73% of American adults and 45% of American teens have cell phones – that represents to 147 million adults and 11 million youth.”¹ One to one computing initiatives continue to be the exception rather than the rule in most Texas school districts, as well as other states, but cell phones are quickly becoming a readily available computing device which is underutilized by many teachers. Liz Kolb, author of the blog and upcoming ISTE book “From Toy to Tool: Cell Phones In Schools” (<http://toytotool.blogspot.com>) shared a variety of ideas for using cell phones as mobile recording devices in her presentation for the 2007 K-12 Online Conference (<http://k12onlineconference.org/?p=152>).

GabCast (www.gabcast.com) and Gcast (www.gcast.com) are both websites offering free accounts for learners of any age who want to use a cell phone or other POTS (plain old telephone system) line as a mobile recording device. In the case of Gabcast, after registering for a free account users create a “channel” and are assigned a unique channel number. Users can then dial a toll free number (in the United States) and record up to sixty seconds of audio after entering their channel number and a four digit password (like a PIN number) which they create for their channel. While paid versions of Gabcast and Gcast are available, several hours of recorded audio can be saved to the web using either of these free accounts. In the case of Gabcast, recorded audio files can be either played directly on the web via an embedded Flash player or directly downloaded to a local computer’s hard drive as mp3 files. Free digital audio editing software like Audacity (<http://audacity.sourceforge.net> – for all platforms) or Garageband (www.apple.com/ilife/garageband - for Macintosh users) can then be used to combine separately recorded audio clips into a single digital story or podcast, which can also include musical intro, transition, and “outro” musical elements.

Classroom teachers wanting to enable students to record audio interviews with family members, friends, or others can set up a Gabcast account and channel for their class and distribute the following information on a single page handout which students take home:

1. An explanatory paragraph detailing the classes “distributed podcasting” or digital storytelling project, and the question(s) which should be addressed in recorded oral interviews.

2. The toll free 800 number of the GabCast service (1.800.749.0632 in the United States.)
3. The number of the classroom's GabCast channel.
4. The four digit password of the classroom's GabCast channel.

To create and save a mobile audio recording, from a cell phone or "regular" land line phone, students simply need to:

1. Call the Gabcast 1-800 number.
2. Enter the class' GabCast channel number, followed by the # sign.
3. Enter the class' Gabcast channel password, followed by the # sign.
4. Press the number "1" to create a new recording.
5. When finished, press the # sign.

After finishing the audio recording, students can either press the number "2" to automatically publish their recording to the Gabcast website or simply hang up. Audio recordings are automatically saved even if students just hang up when finished, and can be published and/or downloaded by the teacher who owns the Gabcast "channel" at a later date.

Consider the power of this distributed recording and publishing process! Rather than being rushed and hurried to complete their audio recording assignment during a short class period, students can make recordings from their home or from other locations at a time they select. From an accountability standpoint, the actual phone number of the cell phone or landline used to make the recording on Gabcast is documented/saved at the time the recording is made. Unlike "live" television, radio, or theater, students can create multiple "takes" of an audio recording until they "get it just right." If something inappropriate is recorded to the channel by a student, it can be deleted by the teacher, and the source or originating phone number for the message can be identified for later follow up.

While some teachers, administrators, and college professors consider cell phones to be distracting annoyances in the classroom, these devices are actually quite capable digital communication devices which can be leveraged in powerful ways for digital storytelling and assesment in K-20 classrooms as well as other venues.

OTHER MOBILE RECORDING DEVICES

A wide variety of digital audio recording devices, in addition to cell phones, are now available at most electronics stories as well as most department stores like Target and Wal-Mart. When shopping for a portable digital audio recorder, it is good to look for:

1. A battery operated recorder.
2. A true "digital" audio recorder, which does NOT use replaceable tapes to store media but rather stores audio directly onto flash memory in separate files.
3. Cross-platform interoperability, so devices can be used on Linux or Macintosh operating system computers, as well as Windows-based systems.

4. Compressed recording formats which provide greater recording capacities for devices. (Recording directly in mp3 format, rather than uncompressed WAV format.)

If learners already have iPod or iPod Nano digital music players, add-on microphones like the Belkin TuneTalk Stereo, Griffin iTalk Pro, and XtremeMac MicroMemo can be purchased and used. Links to each of these devices are available at the top of Mark Nelson's May 2007 article "iPod Mic Shootout" for O'Reilly Digital Media (<http://digitalmedia.oreilly.com/2007/05/18/ipod-mic-shootout.html>).

Battery powered digital audio recorders are superior to iPod recording solutions and other digital audio recorders with non-replaceable batteries in several ways. These devices can permit users to quickly insert a new AA or AAA battery into the recorder if the current battery runs out of juice. Additionally, some devices support recording in compressed formats (like mp3 format) which permit MANY hours of recorded audio to be saved without transferring files to a computer. In the case of my 1 GB iRiver T-10 recorder, I can save over twenty hours of mp3 audio onto the device without transferring and deleting files. This can be a great benefit if computer access is limited and/or multiple recordings need to be made in a row, as is the case at a multi-day educational conference.

If you are digitally recording instrumental or vocal music, however, uncompressed audio recording functionality possible with an iPod or more expensive recorders like the M-Audio MicroTrack (www.m-audio.com/products/en_us/MicroTrackII-main.html) or recorders by Marantz are often preferred. File sizes for uncompressed recordings are MUCH larger, however, but do provide superior sound quality. Higher quality audio recorders are also more expensive, which is often an issue for classroom teachers. Thankfully, expensive audio recorders like these are NOT required to facilitate successful classroom digital storytelling projects using audio technologies.

CONCLUSIONS

Five to ten years ago, student and teacher options for creating and sharing digital audio files were much more limited than they are today. There are compelling reasons to explore the uses of mobile digital storytelling for assesment and learning inside and outside the classroom. Available audio technologies like cell phones as well as website resources like Gabcast.com provide empowering opportunities for students as well as teachers to share their voices with a global audience. Rather than view cell phones as annoyances and distractions, consider leveraging the powerful communication potential of cell phones in classroom projects with your students. Like a powerful new sports car, these digital communciation technologies have potential to be used in constructive as well as destructive ways. It is up to us, as educators, to assist students in the use of these powerful technologies for constructive, positive purposes. In doing so, we can demonstrate together the valuable role which digital technologies can play in the learning process.

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ⁱ Rainie, Lee. "How the Internet is Changing Consumer Behavior and Expectations." Speech to ThinkTank06, Seton Hall University. 07 Jun 2006. www.pewinternet.org/ppt/2006%20-%2006.7.06%20ThinkTank%20Seton%20Hall.pdf.