New Media in the Art Classroom

by Nettrice R. Gaskins

Welcome to the Teacher Workbook for Session Two of *New Media in the Art Classroom*

This workbook is an overview of ***digital storytelling*** as well as teacher tips for art classroom facilitation. For this session you will learn how to create new and interesting dynamic (time-based) stories or movies using found materials such as photos, video clips and text on the computer. You will also explore new media and how it relates to ***active learning***. This session is an introduction to new media as a field.

You will be expected to:
- Learn new things
- Come up with new ideas
- Share your ideas with others
- Do your best
- Have Fun!

What is Active Learning?

From a very young age students are exposed to technology that offers them *hands-on, fast-paced activities* such as gaming. In the *CompassLearning Odyssey Newsletter* on Best Practices in Education the author writes:

"One of the best ways to keep students motivated in the classroom is to provide the same kinds of engaging activities they are used to at home—and that means tapping into what we know about what keeps students active learners."

Digital storytelling is one way to address *active learning and engagement* in the classroom, as well as explore positive youth outcomes. We will revisit this concept later in the session, as it relates to gaming and new genres such as ***machinima***.

Rather than focus on the technology we will explore narrative in time-based media.

What is Digital Storytelling?

The term "digital storytelling" is used to describe various new media production practices. This approach emphasizes the personal voice and facilitative teaching methods. Digital storytelling involves producing creative work on a computer with an emphasis on the narrative arts (poetry, storytelling, theater, fiction, essays, film).

Research/Preparation

Activity #1

In groups of 2-3 teachers explore these sites:
- http://www.infotoday.com/MMSchools/jan02/banaszewski.htm
- http://www.storycenter.org/memvoice/pages/cookbook.html
- http://www.inms.umn.edu/elements/

Activity #2

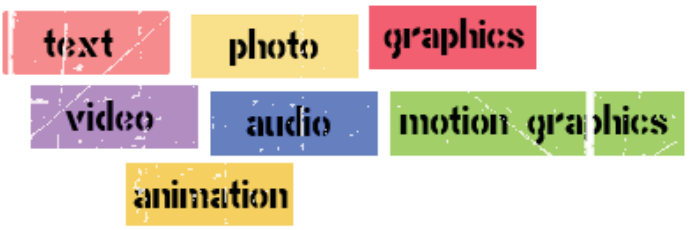
1) Discuss story ideas or choose a "wild card" to develop into a short movie project.

2) Complete the Story Idea Brainstorm worksheet.

3) Organize materials such as photos and text for the story.

Using Digital Storytelling to Create New Media

You will learn plenty of new media-related terms and the most important one to grasp is ***multimedia***. Multimedia is a combination of media types in a single project, including: text, graphics, animation, audio and video.



Media formats used to tell a story.

There are three general categories for multimedia: ***still***, ***dynamic***, and ***interactive***. Still refers to a static, digital image on one screen that does not move. Dynamic multimedia is self-playing, requiring the element of time to be viewed or heard and does not require input from the viewer. Interactive multimedia refers to content for Web, CD/DVD and other technologies. Interactive projects require input from the viewer using a mouse, remote control, personal digital assistant (PDA) or other devices.

Multimedia is not new media. ***New media*** refers to new and developing forms often merging both traditional and emerging forms to create entirely new expressions or experiences. For example, creative robotics and ***open source*** software development. Digital storytelling provides a solid foundation for all types of media making.

For this session you will learn how to tell a story through multimedia, specifically two or more media types woven together into a seamless presentation. What will result is a dynamic (time-based) project you can deliver via Web, CD, or DVD.

Stage 1: Pre-Production

Creating a ***storyboard*** is a great way to plan the movie project. Storyboards are used to plan out digital stories in two dimensions: time and interaction. The time dimension covers what happens first, next, and last. The interaction dimension deals with how the voiceover interacts with the images, or how visual transitions and effects help tie together the images, or how the voiceover interacts with the musical soundtrack or score.

1) Create a basic storyboard for your project.

Watch ***Ideas for Planning & Writing*** on iMovie CD.

2) Divide up responsibilities for the project: capturing video, voiceovers, and the soundtrack.

Stage 2: Production

1) Explore this site:
http://www.current.tv/studio/survivalguide/

2) Capture or digitize your images using a scanner or digital camera.

Watch ***Shooting Great Looking Video*** on iMovie CD.

3) Import images and capture video using ***iMovie***:

What You'll Need
Before you start, make sure that you have each of the following items on hand:
- Your camcorder and videotape
- FireWire cable
- Macintosh computer with a FireWire port
- At least 2 gigabytes (GB) of free hard disk space
- At least 256 megabytes (MB) of RAM

How to Make the Movie
1. Connect your camcorder to your computer using a FireWire cable.

2. Connect the 6-pin connector to your Mac and the 4-pin connector to your camcorder.

3. Insert the tape with your video footage and switch the camcorder to VTR mode.

4. Open iMovie and set the mode switch under the iMovie monitor to camera mode.

5. Use the playback controls to view the tape in the iMovie monitor.

6. Rewind the tape to a few seconds before the point at which you want to start importing.

7. Click the Play button.

8. Click Import when you see the scene at which you want to start importing.

iMovie at a Glance

Clips pane
This area stores your images, or video clips.

iMovie monitor
Watch your clips play in this window. You can play clips that are in the Clips pane or the clip viewer.

Pane buttons
Click these buttons to see the different panes of the iMovie window: Clips, Photos, Audio, Titles, Transitions, etc.

Clip viewer
This is where you add and arrange or edit clips.

Mode switch
Click to switch between camera mode and edit mode. Use camera mode to transfer your raw video into the computer, or to transfer your finished movie back to tape. Use Edit mode to work on your movie.

9. Click Stop to stop importing when you have imported the scenes you want to work with.

10. Repeat steps 6-9 to import additional video, if necessary. [Note: You can import directly from the camcorder without videotape.]

4) Edit your movie and add sound:

How to Edit Your Movie

1. Drag your clips from the clips pane to the clip viewer/timeline in order, based on your storyboard.

2. Click the pane buttons to add a title, audio, or transition between clips. This step is optional.

Stage 3: Post-Production

Now that you have edited your movie you can now prepare it for viewing/sharing via the Web, CD/DVD.

How to Share the Movie

1. Click File>Share...

2. Select QuickTime>Expert Settings and Click "Share

3. Choose Export: Movie to QuickTime Movie

4. Click "Options"

5. Click Video>Settings and choose Compression Type: MPEG-4 Video

6. Select Frame Rate: 15 fps (frames per second), Key Frames: Every 5 frames

7. Select Data Rate: Restrict to 600 kbits/sec, Click OK

8. Click Size and Use Custom Size: 320 x 240, Click OK

9. Click Sound>Settings and choose Format: AAC, Channels: Mono, Rate: 24.000 kHz

10. Click Show Advanced Settings, keep it at Constant Bit Rate, Target Bit Rate: 32, Quality: Better, Click OK

11. Click Prepare for Internet Streaming and Fast Start, Click OK

12. Click Save to compress the movie

New Media and Active Learning Strategies

One of the most obvious activities to engage young learners is gaming. As with multimedia game development involves narrative. Playing games helps people learn basic life skills and addresses various active learning strategies such as engagement, individualization, social skills, and scaffolding.

This year a new medium has emerged that combines gaming with digital storytelling. ***Machinima*** is a term that combines machine cinema and/or "machine" and "animation". It is both a "collection of associated production techniques and a film genre (film created by such production techniques)."

"As a film genre, the term refers to movies created by the techniques described [on the web page]. Usually, machinimas are produced using tools (demo recording, camera angle, level editor, script editor, etc.) and resources (backgrounds, levels, characters, skins, etc.) available in a game.

Machinima is an example of emergent game play, a process of putting game tools to unexpected ends, and of artistic computer game modification." - http://en.wikipedia.org/wiki/Machinima

Demonstration: The Sims

The Sims 2 is a strategy/simulation computer game from Maxis and is the sequel to the popular game The Sims. It is fully 3D, is non-violent, and, characters age and have genetic traits that can be passed on to their children.

Players can capture snapshots or movie clips while playing the game. The captured digital media can be imported into iMovie to create digital stories based on storyboards. There is even a Story Mode that lets the player share the real stories behind the Sims' everyday lives. Students can arrange snapshots and add their own storylines.

Captured movie clip from The Sims 2.

Other examples of new media, ***digital media***, or multimedia for art classroom exploration include:

- ***Web blogging*** and video blogging (vlogging)

- ***Podcasting*** or video podcasting (vodcasting)

- ***Mash-ups***

iMovie and other video editing applications can be used to arrange and share time-based multimedia for any, or all of these activities.

Computer Animation

In 2005, we taught three computer animation classes at the Massachusetts College of Art. Participants were introduced to stop motion, flipbook making, and Macromedia Flash. Two of the classes were for 12-18 year olds and the other was for high school students. For these classes I developed a web site and curriculum. The activities culminated in a CD/DVD and screening of youth work. Exploring narrative was critical in the development of the final projects.

Glossary of New Media-Related Terms

Blogging - A blog, short for weblog, is a website of frequently updated, date-based, chronologically ordered entries, often described as an online journal. When a new post is added, the existing posts are shifted down and older posts are archived. Video blogs are blogs that include links to video files/movie clips.

Compositing – combining multiple layers of digital media to create a single image, audio or movie clip.

Computer Animation – this refers to a sequence of digital images over time, made up of either two or three-dimensional images (2-D, 3-D).

Digital media - encompasses digital video, digital audio, the World Wide Web, other technologies and applications that can be used to create and distribute digital content.

Digital storytelling - used to describe a various new media production practices. This approach emphasizes the personal voice and facilitative teaching methods.

Gaming - an umbrella term that includes a number of types such as computer (a PC or "system"), video, and web-based. Game development requires skills in narrative/storytelling, computer animation, programming, video, and sound.

iMovie - video editing software, created by Apple Computer as part of their iLife suite of applications for the Macintosh, that allows users to edit their own movies. iMovie 3 and later versions run only in Mac OS X. Earlier versions of iMovie ran in Mac OS 9.

Machinima - a term that combines "machine" and "cinema" and/or "machine" and "animation".

Mash up - a musical genre that, in its purest form, consists of the combination (usually by digital means) of the music from one song with the acapella from another.

Media – messages, text, or content distributed through technologies: print, radio, computer networks, video, broadcast, teleconference, etc.

Multimedia - a combination of media types in a single project, including: text, graphics, animation, audio and video.

New media - new and developing forms of media.

Podcasting/vodcasting - this term refers to a method of publishing audio and video programs via the Internet that lets users subscribe to a feed of new media files. It became popular in late 2004, largely due to automatic downloading of audio onto portable players or personal computers.

Storyboard - a graphic plan for the frame-by-frame action in a film or video. A storyboard typically includes a drawing of the visual image, as well as the text of any narration or words that appear on the screen, and transitions or effects.

Links & Other Resources

Active Learning/Best Practices/Games
- http://newsletter.compasslearning.com/page7.asp
- http://magazines.fasfind.com/wwwtools/m/2530.cfm?x=0&cuID=67&rid=2530
- http://icampus.mit.edu/projects/GamesToTeach.shtml

Blogging/Vlogging/Tutorials
- http://www.contentbank.org/AM/Template.cfm?Section=Home3
- http://freevlog.org/
- http://www.blogger.com

Computer Animation
- http://babel.massart.edu/~nettrice/

Digital Storytelling
- http://www.listenup.org/brainglow/
- http://www.infotoday.com/MMSchools/jan02/banaszewski.htm
- http://www.storycenter.org/memvoice/pages/cookbook.html
- http://www.inms.umn.edu/elements/

Machinima
- http://www.machinima.com/
- http://www.sims99.com/

Mash Ups
- http://www.acidplanet.com/contests/fusionflash/?password=fusionflash

New Media/Multimedia/Digital Media/Tutorials
- http://digitalmedia.oreilly.com/
- http://www.dvcreators.net/
- http://www.macjams.com/
- http://dmoz.org/Computers/Multimedia/Software/%20
- http://www.atomiclearning.com/
- http://www.lynda.com/

Podcasting/Vodcasting/Tutorials
- http://arstechnica.com/news.ars/post/20050915-5313.html
- http://www.apple.com/quicktime/tutorials/videopodcasts.html
- http://playlistmag.com/features/2005/07/howtovodcast/index.php?lsrc=mwtoprss

About the Author

Nettrice R. Gaskins is the teacher and designer of this workbook. Nettrice has been exploring new media since high school in Kentucky. Back then she was using Macintosh and Amiga computers. When she graduated from high school, she got a full art scholarship to attend Pratt Institute in New York City and another full scholarship to attend the School of the Art Institute of Chicago. She majored in computer graphics at Pratt and art & technology at SAIC. Today, Nettrice wears a lot of hats. She works in the Computer Arts Center at the Massachusetts College of Art and teaches multimedia & media literacy at UMass Boston. She has been teaching and working with youth, both in school and after school, for several years.

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