Graphic Novels, Digital Comics, and Technology-Enhanced Learning: Part 2

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An elementary student scans concert tickets for her graphic autobiography.

An eighth grader creates a comic to explain a pre-algebra problem.

A teen draws images for her graphic novel set in Ancient Greece.

From writing graphic novels to creating science comics, bring your class assignments, student projects, and course materials alive with 21st century approaches to communication. Regardless of whether you prefer Mac or PCs, students can use free online tools as well as inexpensive software to produce graphic novels, illuminated term papers, visual science reports, photo essays, and other engaging alternatives to traditional reports and student projects. These concrete products reflect student understanding and provide an alternative to traditional forms of assessment.

Today's graphic communication projects help students synthesize and apply digital scraps, primary source documents, photographs, charts and graphics, and other visuals to create meaningful communications.

The introduction of Comic Life and other inexpensive, easy-to-use software has helped to make producing comics easy. Rather than a traditional biography report, consider combining graphic novels and Comic Life software. Use The Magical Life of Long Tuck Sam by Ann Marie Fleming as an example of an illustrated memoir. Based on a documentary, this book contains a wide variety of images from hand drawings to screen shots from videos.

Rather than writing a report about a person, ask students to select a family member or friend, design an investigation, and report the findings in the form of a comic. Or, work with the local historical society to explore famous local or state personalities. Incorporate original drawings and primary source documents including photographs; birth, death, and marriage certificates; scanned tickets, newspaper clippings, and other materials. Figure 1 shows an excerpt from a graphic biography created in Comic Life.

Figure 1. Aunt Laura's graphic biography.

CREATING COMICS IN THE CLASSROOM

As you develop assignments that incorporate comics, think about the wide variety of graphic elements that could be integrated.

Evaluating Comics. Before jumping into the creation of your own comics, evaluate the work of others. Use the Cartoon Analysis Worksheet from the National Archives http://www.archives.gov/education/lessons/worksheets/cartoon.html to help students analyze comics.

Exploring Copyright Issues. Your students can find lots of
com/ is an example of a fumetti webcomic for adults and mature teen readers.

You do not need lots of photographs for a successful project. Lois Lowry wrote an entire novel called The Silent Boy (2005) based on a single photograph. This book is not a graphic novel, but it does incorporate a historical photo at the beginning of each chapter to get readers thinking about the characters, plot, and setting.

Analyze photographs for elements that tell about the person or character you wish to develop. Use The Mill Girl from the Library of Congress collection as an example (see Figure 3). How many different views can you find in a single photo? What if you zoom in or zoom out? What if you flip

**Figure 2. West Nile Virus found at** [http://phil.cdc.gov/PHIL/ Images/08152002/00003/A albopictus ig_091501_004d_lores.jpg](http://phil.cdc.gov/PHIL/ Images/08152002/00003/A albopictus ig_091501_004d_lores.jpg)

drawings, photos, and other graphics online. Before using these images, it is important to think about copyright restrictions. In most cases students can use images for educational purposes as long as they are not posting them online again or selling them. If students plan to put them on a web site, read the guidelines carefully. It is also okay to use materials that are distributed as part of a media packet from a publisher. They often provide a book cover and one interior page. Many government agencies have image collections containing public domain images such as CDC Public Health Image Library, [http://phil.cdc.gov](http://phil.cdc.gov). For example, you might use the mosquito image in a project on West Nile Virus (see Figure 2). In this case, they ask for a photo credit.

When possible, use web sites that contain royalty free photos. For instance a mature high school student might read a historical graphic novel such as 300 by Frank Miller (1999), about the Battle of Thermopylae, which was a significant event in ancient world history. The Spartan King Leonidas and his 300-man team of bodyguards fought the massive army of Emperor Xerxes of Persia. The Spartans were destroyed. The student could focus on researching the authenticity of the storyline and identifying the fact and fiction of the story. Use resources such as Wikimedia Commons [http://commons.wikimedia.org](http://commons.wikimedia.org) to gather public domain images of the battle grounds.

ENVIRO BUZZ...


Is it hot enough for you? Global warming heats up (24/7: Behind the Headlines: Special Edition). Scholastic/ Franklin Watts, 2009. 978-0-531-21805-1. $26.00. Grades 6-10. Compiled from Scholastic magazines spanning several years, articles give an overview of the subject concluding with “2009 and Beyond.” A timeline, other resources, dictionary, an index, and a bibliography of the original articles are included.

Power: Ethical debates about resources and the environment (Dilemmas in Modern Science). Kate Ravilious. Smart Apple Press, 2008. 978-1-59820-096-5. $34.25. Grades 6-10. Exploring opposing sides to ethical issues of the 21st century makes this series especially important for discussions of timely environmental issues. Other titles in the series are about food, health, and technology. Chapters on environmental ethics include power and energy, renewable resources, wood and water, and conclude with a time line, glossary, and index.

Protecting Earth’s land (Saving our Living Earth). Valerie Rapp. Lerner, 2009. $19.20. 978-0-8225-7559-7. Grades 5-10. Explaining the damage that can happen to the land, Rapp describes the mission to find solutions to protect and enrich the land. The series is devoted to numerous areas of the environment like waste management, rain forests, and global warming, among others. Each title has interesting fact boxes, color photos, and suggestions for “going green” followed by a selected bibliography, further reading, glossary, and an index.

Figure 4. Ode to a Cabin in Comic Life.


Using Charts and Graphs. Create your own charts and graphs using computer software or online graphing tools. You can also integrate screen shots from online games and other web sites. These are particularly useful if students are doing critical reviews. For instance, ask students to review an online game, then, write about how they would change it to make it more effective.

GRAPHIC NOVELS AND STORYTELLING

Comic literature provides an opportunity to explore the art of storytelling. Involve young people in reading and creating effective narratives. For instance, the award-winning graphic novel Pride of Baghdad by Brian K. Vaughan (2008) tells the story of the bombing of Baghdad from the point of view of a group of lions that escaped from the zoo. Involve mature teens in writing a graphic novel set in Baghdad (see Figure 5).

Use visual resources as prompts for writing. Postcards provide a great start. Use the graphic novel Postcards: True Stories that Never Happened edited by Jason Rodriguez (2007) to jump-start a project based on postcards. Ask young people to develop a story based on a current or historical postcard. Go to the book web site http://www.eximiouspress.com/postcards/ to learn more about it and see examples from the book.

Characters in Storytelling. Many webcomics such as By Moon Alone, http://bymoonalone.com/, Evil Diva, http://www.evildiva.com/, and Muse Academy, http://www.themuseacademy.com/, provide a page describing the cast of characters. Some web sites such as the teen comic The Wind Raider, http://www.thewindraider.com/, include a trailer, story overview, as well as character descriptions. Ask students to invent their own character page. They may also wish to create pages for the plot and setting.

Wordless Connections. The Owly series by Andy Runton is a great example of a story that can be told entirely through pictures. Explore many pages and lessons plans at the author’s web site http://www.andyrunton.com/comics.html. Then, ask students to create their own wordless comic.

Historical Fiction. Read The Arrival by Shaun Tan (2007). This wordless book focuses on the experiences of an immigrant. Many example pages are at the author’s web site, http://www.shauntan.net/books.html. You can also read an article by the author about his techniques. Then ask yourself, how well does it convey its message? What is real and what is fantasy? Compare images of the immigrant experience from the Library of Congress, http://www.loc.gov/rr/print/list/070_immi.html, with the visuals in the story and to Scholastic, http://teacher.scholastic.com/activities/immigration/index.htm, for lots of ideas for immigration projects such as the oral history project.

As a project, ask students to invent a family based on immigrant photos of the time period and create a comic about their experience passing through Ellis Island (see Figure 6).

**VISUAL REPORTS**

Rather than a traditional text report, consider ways to incorporate visual elements. Use More for Inventors! by Marcia Williams (2005) as an example of how the story of inventors can be told in a comic format. Ask students to create a one-page history of an invention.

**History Reports.** Lackaday by Tracy Butler, http://www.lackadaycats.com/, is a webcomic set during Prohibition. Rather than writing a traditional report on the time period, ask students whether the graphic novel depicts history accurately. Ask students to create their own webcomic that reflects the historical period.

**Science Reflections.** Take photographs during science projects. Place the images in an electronic folder that students can access. Ask students to create a visual reflection of the project. Archive photos so each year the number of images expands. Use over-the-shoulder and close-up shots so that the faces of individual students are not shown.

You can also find images online. For instance, Nestwatch, http://watch.birds.cornell.edu/kest, contains images from live bird cams.

**Problem-Solving Assignments.** Design assignments that ask young people to use visuals as a way of sharing their understandings of subject-area content.

**Photo Essays.** Photo essays allow young
KAWAI!

In Japanese, "kawai" is a word that is hard to say without squealing and clapping your hands. If you say it with heavy emphasis on the last vowel, it means not just "cute," but "so darned cute I might need insulin." Here are two recent books for younger readers that manage to be both kawaii and genuinely funny.

Mao-chan. Vols. 1-2. Ken Akamatsu. Del Rey Manga, 2008-9. $16.95. Vol. 1: 978-0-345-50181-3, Grades 5 and up. Alien attack on Tokyo? No problem, call in the military, Cute alien attack on Tokyo? The public revolts against violent response! Enter Mao-chan and her friends, members of the Grade School Special Defense Corps. Representing the major branches of the military, these cutie-pies can fight darling monster kittens, plump pterodactyls, and doe-eyed dolphins without raising more than a gasp of adoration from the masses. The book's characterization is broad, the transition between panels is effortless, and the plots are as plucky as the little girls who star in them.

Tiny Titans: Welcome to the treehouse (978-1-4012-2078-5) and Tiny Titans, Vol. 2: Adventures in awesomeness (978-1-4012-2328-1). Art Baltazar and Franco. DC Comics, 2009. $12.99. All ages. Baltazar and Franco, the team behind the bizarrely adorable Patrick the Wolf Boy, have completely re-envisioned the Teen Titans franchise in order to produce a gag-ridden book in the tradition of the finest Sunday comics. The stories are short, delivering exactly the sort of humor so many children find so funny in the most worn knock-knock jokes (one of which the authors even take to its logical extreme).

ILLUMINATED TERM PAPERS

Consider the many ways visuals can enhance the traditional term paper. The Adventures of Riley books combine photographs, drawings, text, and fact boxes to tell fact-based stories. Go to the Adventures of Riley web site, http://adventuresofriley.com/, for lots of examples. Take photographs and add your own line drawings.

Illuminated History Projects. Read The United States Constitution: A Graphic Adaptation by Jonathan Hennessey (2008). Ask students to create their own graphic adaptation of an historical document. For ideas, go to the National Archives Documents http://www.archives.gov/historical-docs/, or go to the National Archives Exhibits, http://www.archives.gov/exhibits/, and choose an historical event, then design a comic that provides an overview of this event.


COMIC TOOLS FOR THE SCHOOL LIBRARY

Software Tools. Although Comic Life, http://plasq.com/comiclife, is the most popular in schools, other software such as Comic Book Creator, http://www.mashon.com/myebc/, is also available for student production.

It is fun to use specialty software, but you can use tools like Microsoft PowerPoint and Publisher if you do not have Comic Life. Also, think about open source tools such as OpenOffice.

If you are using PowerPoint, simply paste in your photos, then choose a thick line and you will have a nice frame around your comic. You can use the Autoshapes to locate call-outs to use as speech balloons.

Most professional illustrators use a combination of tools including hand drawings, scanners, Adobe Photoshop, and Illustrator. Kazu Kibuishi provides a nice overview of the process of developing the webcomic Copper at http://www.botteley.com/workshop/copper_tutorial/.

Online Tools. Many web sites provide tools for creating comics. A list is provided below:

- Build Your Own Comic http://www.childrensmuseum.org/special_exhibits/comics/games.html
- Create your own comic using the backgrounds and characters provided. Just add your own balloons. Print and color off-line.
- Disney's Comic Creator http://disney.go.com/surfswell/comiccreator.html
- Choose among four characters and a single panel cartoon.
- One of the best online tools, this comic strip builder uses Garfield characters and also lets you create your own.
- Kabam! Comic Creator http://www.bam.gov/sub_yourlife/yourlife_comiccreator.html
- From the Center for Disease Control, this tool lets you tell a story. Unfortunately the developer does not have much control.
Consider the many ways visuals can enhance the traditional term paper. The Adventures of Riley books combine photographs, drawings, text, and fact boxes to tell fact-based stories.

- Make Your Own Graphix
  Make comics using a set of characters, objects, and settings.

- MakeBeliefsComix
  One of the best, this web site provides characters with different emotions and the option for 2, 3, or 4 panels. It's a great tool for all games to make simple comic strips.

- Pixton
  One of the best tools for creating and storing comics online, this site provides a special area for schools.

- ReadWriteThink Cartoon Creator
  Make a very simple comic strip using a set of visuals provided.

Many comic creation web sites such as ToonDoo, HyperComics, and ComicArt School are popular with teens but provide resources for adults that may not be appropriate for young people.

**COMIC CREATION AND THE SCHOOL LIBRARY**

As you work with teachers to design projects that involve reading and creating comics or graphic products, think about ways to incorporate standards for 21st century learners.

Sequencing. Comics are a form of sequential art. Seek projects that require students to follow directions or identify sequences. For instance, students might create step-by-step instructions to show their understanding of a scientific process. Or, they might design a comic focused on a series of events in history or the life of a person.

Multimedia. Some comics contain elements that make use of the features of the Internet such as interactivity, audio, or video. Hero: A Story, [http://invisibletitles.comicgenesis.com](http://invisibletitles.comicgenesis.com/), asks people to roll-over the images to review the text.

Consider the creation of interactive and multimedia comics. For instance, use PowerPoint to lay out a comic page then insert audio to provide oral narration. Or, use online tools such as GoAnimate, [http://goanimate.com/](http://goanimate.com/), to create animated comics.

Depth. As you design assignments, ensure depth of thinking. Comic projects should require students to summarize and synthesize information. Be sure students are using a variety of resources and citing these resources in the comic, as footnotes, or in a bibliography at the end of the comic.

**LEARN MORE**

Comics in the Classroom, [http://www.comicsintheclassroom.net/](http://www.comicsintheclassroom.net/)


**REFERENCES**


**CREDITS**

Comic Life examples adapted from our online workshop at [http://eduiscapes.com/sessions/comics/](http://eduiscapes.com/sessions/comics/).
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