

INFOTECH

Sensible Approaches to Technology for Teaching, Learning, and Leadership

Annette Lamb and Larry Johnson

I'm putting all my documents in the "cloud."

We're cancelling our face-to-face book club and holding all the discussions online.

It's time to drop my print magazine subscriptions and use electronic versions instead.

It is easy to get caught up in the excitement of technology. However as a teacher-librarian, it is essential to step back and consider practical and realistic applications that make sense for teaching, learning, and leadership. Security issues need to be investigated before jumping into cloud computing. Student interests should be considered when changing formats for programs and resources. Many teens still enjoy sitting on a comfortable library lounge chair discussing books and reading paper magazines.

Technology is a wonderful tool. But it is sometimes necessary to step back from the "bells and whistles" and explore sensible approaches that meet the needs of today's librarians, classroom teachers, and learners. We also need to remember that today's schools are filled with exciting new ways to think about teaching and learning that go beyond high-tech tools and web sites. In the end, your solution may involve a balance of traditional and emerging resources, tools, and approaches.

Teacher-librarians are in a unique position to provide leadership across the curriculum identifying sensible approaches that are effective, efficient, and appealing for both educators and students.

TECHNOLOGY WITH IMPACT: EXPLORE-MODEL-INFUSE

Many technologies come and go without becoming embedded in daily practice. Let us explore four areas where technology can

have a positive impact on education. These tools and resources allow you to connect, communicate, collaborate, and create.

As you consider the technologies in each area, think about a systematic approach that will lead to long-term infusion of the technology. Begin by exploring the features of the tool with a practical application that will solve a problem or address a specific need. Then, model the use of the technology in a setting that allows teachers to use the tool in a professionally meaningful way. Finally, work with teachers to infuse the technology into a standards-based lesson.

By applying this simple three-step approach, you are more likely to feel confident using the technology yourself and your teachers will see the value when you partner with them to integrate the tool into the curriculum.

CONNECT

Explore ways that technology can be used to make professional, teacher, and student connections: brainstorm ideas, share documents and calendars, make announcements, and establish rapport with your learning community.

Explore

Many online tools are available for connecting people together such as [TodaysMeet](#), [todaysmeet.com](#) and [AnswerGarden](#), [answergarden.ch](#). [Wallwisher](#), [wallwisher.com](#), is an easy, effective, and intuitive online board-making tool where users can make announcements, share notes, and organize ideas. Users can even add video or image links. Try creating a wall to use for a planning activity such as establishing a book club. Explore [Project Planning](#), [wallwisher.com/wall/eduscapes](#), as an example.

Model

Think about an application of these connection tools that could be modeled in a faculty meeting. For instance, [TodaysMeet](#) could be used as a simple way for people to share their ideas for an online book club. Ask people to share their ideas in the next week and send a reminder through email. Once you've modeled the use of this tool, teachers will come up with ways they might use the tool with students such as recalling prior knowledge about a science topic or brainstorming adjectives for a creative writing assignment.

Infuse

Work with a teacher who shows interest in one of the tools. Begin by showing an example such as using [Wallwisher](#) to share book reviews of [Arthur books](#), [wallwisher.com/wall/arthurbooks](#). Select a group of books such as [I Can Read](#), [icanread.com](#) or [Step into Reading](#), [randomhouse.com/kids/books/step](#) and create your own [Wallwisher](#).

COMMUNICATE

The ability to communicate with others is one of the primary benefits of technology in the library. Use social networking tools to design virtual spaces for blogging, information sharing, and discussions. You might ask for input, share news, discuss ideas, or build a network of people interested in a particular topic.

Explore

The Ning, ning.com, web site provides an easy-to-use tool for creating a social network. Educators can get a free Ning, about.ning.com/pearsonsponsorship. Begin by exploring networks that might be of interest to you such as the Teacher-librarian Ning, teacherlibrarian.ning.com. Comment on a blog post or participate in a discussion. Use this environment to explore the possibilities.

Model

Think about other technologies that can be used for communication and interaction. Introduce an English teacher to the English Companion Ning, englishcompanion.ning.com, or a second grade teacher to the Second Grade Teachers' Club, secondgradeteachersclub.ning.com. Start a teacher book club using Good Reads, goodreads.com.

Infuse

Many schools hold "mock" Newbery or Printz award activities. Start your own project using a tool such as Good Reads or another of the online book club tools. For instance, a middle school teacher-librarian in Indiana uses her blog [The Brain Lair](http://TheBrainLair.com), thebrainlair.com, to encourage reading. Her Mock Printz 2011 group, goodreads.com/group/show/32480.Mock_Printz_2011, is reading young adult books and voting on their favorites.

COLLABORATE

Go paperless! One of the most exciting features of 21st century technology is the ability to easily collaborate online. Team

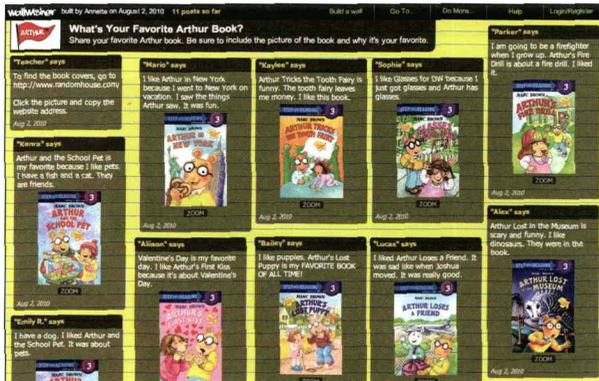


Figure 1: Arthur Books Wallwisher

building, peer editing, grant writing, and the synergy that comes from people working together are all examples of the power of collaboration.

Explore

Use an online word processor for collaboration. Although Google Docs, docs.google.com, is the most popular, you can keep it simple by using a tool such as Titanpad, titanpad.com, for basic collaborative projects.

Model

Select tools for particular needs. If you al-

ready use the software Inspiration in your school, explore ways to use the online version, [Webspiration](http://Webspiration.com), mywebspiration.com, for project planning. Demonstrate the power of adding a collaborative element to a concept map project.

Infuse

Work with a teacher to enhance a group project by using collaborative tools. Rather than the traditional group PowerPoint project, partner with a teacher on a wiki project. Focus on the role of collaboration and why team building, peer editing, and synergy are important. For example, explore the Join Me



Figure 2: Join Me for Lunch Wikispace

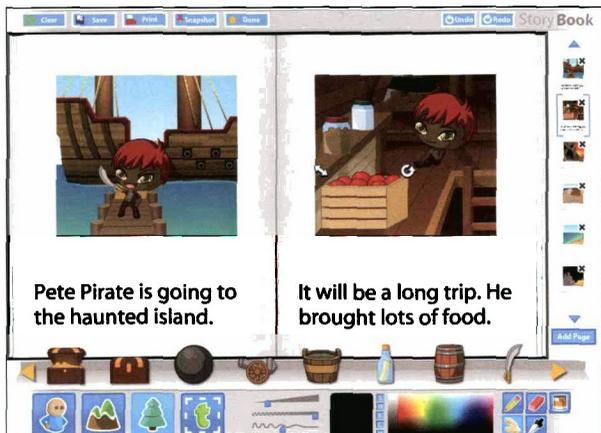


Figure 3: Pirate Pete project from Kerpoof

For Lunch project, ourfoodchains.wikispaces.com.

CREATE

From audio and video recording to the production of comics, technology tools provide adults and young people a wide variety of tools for creating and sharing products.

Explore

Have some fun creating comics with pixton.com, animation with goanimate.com, and audio with voki.com. Think about the many traditional assignments in your school. How could these tools be used to engage students in exciting new ways of creating and sharing?

Model

Watch public service announcements from the Ad Council, youtube.com/adCouncil. Create a series of PSAs advertising your school library services. Use technology tools to create and edit your own audio and video productions. If you don't have access to YouTube, use a web site such as SchoolTube, schooltube.com, Vimeo, vimeo.com, or Animoto, animoto.com, for posting projects.

Infuse

Partner with a teacher on a unit using Scholastic's Myths, Folktales & Fairy Tales, teacher.scholastic.com/writewit/mff/, web site. Involve children in writing and sharing their own stories with a tool such as Kerpoof, kerpoof.com. This easy-to-use technology allows children to create and publish their stories.

A DOZEN SENSIBLE APPROACHES

From e-book readers and digital cameras to electronic whiteboards and interactive web

sites, the choices for technology integration seem almost endless. Let's explore a dozen sensible approaches that will lead to successful programs without overwhelming already stressed teachers in your building. Where does technology make sense in your school library program?

1: Rediscover the Classics

Most curriculum committees have spent the past decade creating comprehensive curriculum maps outlining learning outcomes. Revisit these documents and build in the best online resources. Use some of the classic web sites such as PBS, pbs.org/teachers/resource-roundups, and Thinkfinity, thinkfinity.org, to locate quality educational materials. What classic web sites is it time to revisit?

2: Share Useful Resources

Build the best tools and resources into model projects that can be replicated. For instance, Readability, lab.arc90.com/experiments/readability, is a simple tool that makes reading web pages easy by removing clutter and focusing attention on blocks of text. What useful tools are unknown to your teachers?

3: Create a Supportive Atmosphere

Praise small steps toward technology integration. Focus on standards that place em-



Figure 4: The Museum Mystery Wikispaces



phasis on creative thinking. The ISTE NETS "creativity and innovation" standard places emphasis on demonstrating creative thinking, constructing knowledge and developing innovative products. Use Glogster, edu.glogster.com, to show teaches the value of creating interactive posters. How will you encourage your teachers?

4: Nurture Technology-Savvy Teachers

Match technology and professional development with ongoing, relevant applications to build enthusiasm in your teaching staff. It's not enough to tell teachers about Wikispaces, wikispaces.com/site/for/teachers. They need to see examples of how this tool can be used at their grade level and subject area. Show them The Museum Mystery, museummystery.wikispaces.com, and discuss how they can connect books with collaborative writing projects. How will you nurture sustained professional development with your teachers?

5: Encourage Technology that Supports Instruction

Involve students in creating remixes: "Remix means to take cultural artifacts and combine and manipulate them into new kinds of creative blends" (Knobel and Lankshear, 2008). Students might access photos and videos from NASA, nasaimages.org, to create a multimedia project on "Why the Moon Mat-

ters" in today's society. As they create their project, students learn to select and evaluate resources as well as cite sources.

The Ease History, easehistory.org, project provides a way to see four videos at once. At the Digital Vault, digitalvaults.org, students can create their own remix. Neil Stephenson, a history teacher worked with his students to remix images to create their own history boxes in the "The Cigar Box" project, thinkinginmind.com/search/label/cigarbox. What type of remix project could you suggest?

6: Connect Technology to School Initiatives

Each year schools introduce new initiatives. If the focus is on bullying, integrate the web site Stop Bullying Now, stopbullyingnow.hrsa.gov/kids/. If Hands-Only CPR is an area of interest, suggest the Hands Symphony, handsonlycpr.org/symphony/, from the American Heart Association. How will you support new and ongoing projects and mandates?

7: Explore Innovative Applications of Technology Tools

Encourage innovative approaches to teaching such as blended classes that rotate small groups and online class work. Student might spend time with the teacher one-on-one while others are in the library working online exploring debate topics at

WEB SITES

ESPIONAGE

FOR EDUCATORS:

Kid's page—Central Intelligence Agency. <https://www.cia.gov/kids-page/index.html>. Best for educators and parents, the site includes Internet safety tips and lesson plans, the CIA K-9 Corps, and job information. Games include cracking codes, aerial and photo analysis, and a geography quiz.

Navajo code talkers. navajocode-talkers.org. This official site of the Navajo Code Talkers opens with a veteran sharing his experience, and includes how this unbreakable code was developed, code words, short biographies, and photographs.

NOVA online: Decoding Nazi secrets. www.pbs.org/wgbh/nova/decoding. From a NOVA program on how the Allies cracked the Nazi message-coding machine, Enigma. Crack and send secret messages, learn if Internet transactions are safe, meet the people at Bletchley Hall, and see how the Enigma works. Site includes teacher's guide and online resources.

Spies at Los Alamos. www.smithsonianmag.com/history-archaeology/Spies-Who-Spilled-Atomic-Bomb-Secrets.html. Meet the spies who worked on the Manhattan Project, developing the nuclear bomb and learn their motivations for spying. Did their spying help the Soviets, and were they caught? Click on photo of Klaus Fuchs for additional photos.

Spy letters from the American Revolution. www2.si.umich.edu/spies. Actual spy letters show how top-secret information was exchanged—and intercepted—during the Revolutionary War. Read about the people who spied and the methods they used.

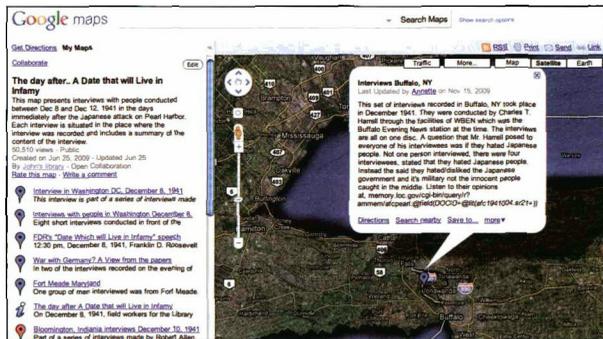


Figure 5: Library of Congress and Google Maps Mash-up



Figure 6: Toonbooks Cartoon Maker

the IDEA, idebate.org, web site. How will you become proactive in supporting innovative uses of technology?

8: Create Fabrics, not Quilts

Weave technology throughout the curriculum. Help young people see how technologies are connected to content and also to other technology tools. A mash-up is a web application hybrid. It combines data or functionality from two or more sources to create something new. These have become increasingly popular with Web 2.0 applications such as blogs, maps, and photo networks.

With so many different sources of information, it's sometimes difficult to get the "big picture." Mash-ups provide a way to begin synthesizing information. For instance, Google Maps, maps.google.com, can provide a geographic view of content. At his blog Learn Digital History, leardigitalhistory.blogspot.com, John Lee describes his *The Day After*, tinyurl.com/2akpwpce, project that connects the Library of Congress Folklife Center audio interviews made after the bombing of Pearl Harbor with Google Maps. You see at city such as Buffalo New York on the map. Then, you can listen to what the people said.

Think of the ways young people could create their own mash-ups. Show them the Sherlock Holmes, tinyurl.com/yzpkt4b, maps. Use the Mark Twain Stormfield Project, twainproject.blogspot.com, for ideas. They have identified Mark Twain's connections on Google Maps. Could your class create a project identifying these connections to other places around the world?

9: Create Synergy with Multiple Resources and Tools

Connect books and hands-on experiences with technology tools and resources. Explore the use of e-readers and online tools such as Google Books, books.google.com. Engage young adults in transmedia reading adventures that combine books like the new *Lost Souls: Burning Sky* books, lostsoulsbook.com/, with online Game of Lost Souls, lostsoulsgame.com. Involve children in reading and writing book reviews at the Scholastic Share What You're Reading project, teacher.scholastic.com/activities/swyar/. How will you create synergy through book-technology connections?

10: Focus on Digital Citizenship

Integrate 21st century skills across the curriculum. An increasing number of online tutorials are available to help teach digital citizenship. Use Internet Safety with Professor Garfield, http://www.infintelarninglab.org/. How will you promote digital citizenship in your school library program?

11: Build School-to-Home Connections

Explore beyond-school activities. For example, look at the nature project, Journey North, jnorth.org/. Track the wildlife migrations around the world and explore what is happening locally. How can you make your library the center of school-to-home connections?

12: Stress Interdisciplinary, Project-based Approaches

Use technology to facilitate collaboration, communication, and sharing. Watch videos from *The Week in Rap*, theweekinrap.com, from Flocabulary. Encourage young people to create their own. What interdisciplinary projects will you initiate in your library program?

CONCLUSION

Develop a plan for practical use of these tools and resources without curbing the enthusiasm of early innovators. Explore ways that technology can encourage young readers and writers.

Use technology where it makes sense in the curriculum. For instance, some young learners have difficulty learning to write dialog between characters in a story. Comics are a great way to help young readers and writers. Read the award-winning graphic story by Geoffrey Hayes called *The Big No-No*, toonbooks.com/book_bpno_about.php.

Then, use the online Cartoon Maker, toonbooks.com/fun_cm.php, to make writing fun. Children select backgrounds, characters, plots, and speech bubbles. Then, write an original comic-format story. Using the graphic story provides a new format for reading, while the cartoon-making tool provides scaffolding for a story writing assignment.

Start by exploring ways to connect, communicate, collaborate, and create using the three-step Explore-Model-Infuse process. Then, integrate technology where it makes sense in your library program.

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