Educational Technology Integration with Web 2.0 Applications

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This creative project has been examined and approved.

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Under the Creative Project option for the masters of science in library media education, this report is offered in lieu of a thesis.

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Dr. Brian Smith, Professor
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CHAPTER 1

Introduction

Technology is changing the way educators can teach by providing tools that foster creativity, collaboration, motivation, and critical thinking skills. With the advent of Web 2.0 applications such as, blogging, podcasting, online discussions, and wikis, teachers and students are finding new ways to create innovative and exciting learning opportunities. These new tools are popular among students for a variety of reasons. One reason is that Web 2.0 tools are affordable and easily accessible. Since they are web-based, students and teachers are no longer limited by collaborating within the walls of the classroom. With podcasting, students can access lectures and additional content via any MP3 player. According to Berk, Olsen, Atkinson and Comerford (2007) “It is this liberation from the computer desk and tracking of personal programs that adds so much value to the podcast” (p. 410). While many teachers would like to incorporate Web 2.0 applications into their classrooms, many simply do not know how and have little time to explore their options. In addition, while students are eager to try new technological tools, their skills can be superficial and they can become anxious when using new software. In one experiment incorporating online discussions using Moodle, Dr. Ulasewicz “anticipated [her] students to be much more computer savvy and knowledgeable” (Beatty & Ulasewicz, 2006, p. 36). Through collaboration with media specialists, both teachers and students can learn to utilize Web 2.0 applications to make their learning environments more engaging.
Problem Statement

This generation of students has grown up with technology and internet access at school. According to the National Center for Education Statistics, “In fall 2002, 99 percent of public schools in the United States had access to the internet” (U.S. Department of Education, 2003, p.3). Technology is woven into their lives, yet it can be left out of one place—school. According to the 2007 “Taking Stock With Teens” survey by the Piper Jaffray retail research team, 82% of the 600 teenagers surveyed own some sort of iPod and 89% use iTunes (para. 6). They create and upload videos to YouTube; they create photo collages with Flickr and socialize on MySpace or FaceBook. However, are they taking these skills and applying them in the classes they attend at school? While many students do apply them, others do not. Why not harness students’ ardent interest in technology and engage them more fully and intently in K-12 settings? In order to complete this, teachers themselves must be aware of the possibilities that Web 2.0 applications can bring to their classrooms. They must have the training and resources available to make this happen. While they may not be experts in Web 2.0 applications, they need not be afraid to harness these new tools and incorporate them into their curriculum to enhance student participation and performance. Collaborating with media specialists who are skilled in Web 2.0 applications can facilitate the process.

Purpose of the study. The purpose of this study is to develop a handbook that media specialists can use when collaborating with teachers who want to incorporate Web 2.0 applications into their classes to improve student participation and achievement.

Research questions.

1. What are some effective uses of Web 2.0 applications in the classroom?
2. What are the benefits of incorporating Web 2.0 applications in the classroom?

3. What are the limitations of incorporating Web 2.0 applications in the classroom?

**Significance of the Study**

Web 2.0 applications can enhance what is already happening in the classroom, but they take it to a higher level. For example, when the Prince William County Library in Virginia offered their summer reading program online in 2006, active participation increased by 70% and the reviews submitted increased almost 500% (Bolan, Canada, and Cullin, 2007, p. 42). In another instance, Luce-Kaplar (2007) reflected on utilizing groups for incorporating a wiki with reading and writing instruction, “student learning increased…by giving up some of the control and allowing ideas to emerge from the group, we had a richer and more interesting experience” (p. 222). According to Donald (as cited in Luce-Kaplar, 2007) “a critical catalyst for knowing and understanding are intersubjective experiences. We greatly enhance our capacity for learning when part of a distributed cognitive network” (p. 221). Web 2.0 applications allow intersubjective experiences to occur; they foster them. If education is to evolve to the next level, Web 2.0 applications need to be involved. It is exciting for both teachers and students. Collaborating and developing the skills necessary to implement the changes is vital for teachers to make the tools work for them.

**Methodology**

*Criteria for selecting resources.* In selecting resources for the study, there were several factors to consider. Research needed to be current, since trends in educational
technology applications are constantly changing. In addition, finding material from peer reviewed journals is important because it adds additional credibility to the research; however, an article can still be credible and practical even if it is not published in a peer reviewed journal. In reading through the research available, special attention was paid to how Web 2.0 applications were used. While it is great to have different technologies available, if teachers are unaware of how to incorporate them into their classes and units in a meaningful way the technology is of little value.

1. Did the articles contain practical ideas for incorporating Web 2.0 applications into the classroom?

2. Were the articles from peer reviewed journals?

3. Were the articles published in the last two years?

Limitations of the Study

Since this study occurs within the high school, its findings are specific to grades 9-12. In addition, the researcher will only be able to observe classes when they are in the media center, during classroom collaborations, and assisting students before and school. The researcher will not be able to follow them throughout the semester but rather for the duration of the project. Teaching and learning styles vary considerably. The amount of variables could have an impact on any relationships found between the use of Web 2.0 applications and the increase in student participation and/or performance.

Definitions of Terms

Blog. “Blogs are simple online journals primarily used to support communication in the form of presentation….blogs are organized by time like a journal” (Driscoll, 2007, p. 2). It can also be referred to as a weblog.
Moodle. “A course management system (CMS)—a free, Open Source software package designed using sound pedagogical principles, to help educators create effective online learning communities” (Beatty and Ulasewicz, 2006, p. 36).

Podcast. An audio or video file that can be downloaded or accessed via the internet. Often they are accessed through RSS feeds.

RSS. A code or feed “(as in ‘news feed’), [that] makes it possible for readers to ‘subscribe’ to the content that is created on a particular Weblog so they no longer have to visit the blog itself to get it” (Richardson, 2006, p. 75).

Wiki. “A Website where anyone can edit anything anytime they want” (Richardson, 2006, p. 59).
CHAPTER 2
Review of the Literature

Educators are continually looking for ways to improve their instruction to connect with their students; advances in technology can facilitate the process. Shim, Shropshire, Park, Harris, & Campbell (2007) asserted that “The delivery of information and instruction has been improved by technological development” (p. 587). Web 2.0 applications are becoming a popular means to achieve educational outcomes and goals. In this sense, whatever tool is used “transcends the traditional classroom and allows learning to take place anywhere” (Beilke, Stuve, & Williams-Hawkins, 2008, p. 108). This new multimedia approach to learning capitalizes on what students already value—technology. Roberts, Foehr, & Rideout (as cited in Ellison & Wu, 2008) reported that “Young people ages 8 to 18 spend almost six and one-half hours a day with media, but because they often use multiple media simultaneously, they are actually exposed to the equivalent of more than 8.5 hours of media daily” (p. 99). In order to capitalize on student’s love of technology, educators must evaluate how to incorporate these tools in a way that is engaging and educational for students.

In this chapter, current research exploring the educational uses of Web 2.0 applications is evaluated. The purpose for this literature review was to analyze the current research available in order to best determine how to successfully incorporate these tools into classroom instruction. The literature review will focus on three different applications including: blogging and online discussions, wikis, and podcasting. The literature review for each application will include ideas for classroom uses in a variety of subject areas, an
analysis of the benefits of each application, and an examination of the limitations of each tool.

Blogging & Online Discussions

According to a study by Perseus Development Corporation (as cited in MacBride & Luehmann, 2008), “adolescents make up a large percentage of those who currently have blogs (51% of all blogs being developed and maintained [are] by individuals ages 13-19)” (p. 173). Since teenagers are already proponents of blogging, educators should examine ways of enhancing their curriculums by incorporating this Web 2.0 application. Advocates for blogging maintain that it promotes collaboration between students, and it “facilitates reflective thinking because people who write blogs (bloggers) can easily access different points of view” (Xie, Ke, & Sharma, 2007, p. 19). Conversations are also not limited to the class hour; they extend beyond the classroom walls. Notes, articles, videos, and links to additional classroom resources are some of the elements that can be included in a blog. Students can also post comments to any of the information presented in the blog. In this sense, blogs provide students and staff with a “central location” (Greer & Reed, 2008, p. 140) to meet outside the traditional classroom.

While students have the ability to comment on course material through a blog, online discussions and/or threaded discussions are another aspect of Web 2.0 applications that are gaining popularity with instructors. Threaded discussions are popular because everyone in the class has a voice and the conversations can happen when it is convenient for the participants. “The asynchronous and semi-anonymous aspect of blogging enabled interactions that might not have happened in a traditional classroom, especially those with large enrollments” (Ellison & Wu, 2008, p. 8). In addition, students may feel less
pressure about their remarks when conversations happen online. According to Tiene, (2000) “if you do not have to ‘face’ the other person when you contradict them, you may be more willing to do so” (p. 4). MacBride & Luehmann (2008) reported “the blog encouraged students to participate in class that may not usually speak up…on the blog there is a little room there for them to be anonymous and they can ask their question when no one else is looking” (p. 180). Several studies including Powers and Mitchell, Zhu, and Knotos (as cited in Tiene) found that “students have favorable reactions to their experiences with electronic discussions” (p. 371). If educators can capitalize on their students’ interest in technology, it should enhance student participation and achievement.

In addition, “in a growing number of college classes across the country, instructors are using electronic communications to augment in-class discussion with an ongoing, online dialogue between students about class-related topics” (Tiene, 2000, p. 371). If educators truly want to prepare their students for a successful college experience, they must provide them with opportunities for learning that reflect what they will see when they go to college. By capitalizing on their interest in technology, teachers will be preparing students for their role after high school as well.

As with all of the Web 2.0 applications discussed in this literature review, many software products are available on the web at no cost to educators. In chapter 3, specific directions will be given for creating a blog through Blogger and for online discussions using Moodle.

Uses in the Classroom

There are myriad ways of using blogs in the classroom; every subject area could incorporate them into their curriculum to enhance what they already do. For Mr. K, a
high school math teacher, the blog is an essential element of his classroom. Students take turns posting the day’s events in class; it’s important to note that this is required for all students, however, “the specifics (length, content, style or format) were completely up to the student author’s discretion” (MacBride & Luehmann, 2008, p. 175). The posts included the day’s problems and solutions, commentary on class, and notes. Mr. K would also post intriguing problems or games every Sunday night. Students would attempt to solve the problem and Mr. K would provide feedback. Reflective writing emerged as students made their way through problems. In other studies, this reflection was an important piece of blogging as well. Students surveyed by Tiene (2000) responded “the written interchange can be more in depth at times” (p. 5) while another student reported “I liked being able to re-read classmates’ comments” (p. 5), and yet another student appreciated “an ability to review what was written and respond” (p. 5). This ability to take time and reflect and learn from others is paramount in Web 2.0 applications. In this sense, students are truly focusing on their education and learning from one another.

Another instructor used blogging to replace traditional journaling; students had to write in their journals every week and were also assigned a buddy who would provide peer feedback (Xie et al., 2007, p. 21). There was a structure guideline for students to follow; “this structure meant to encourage students to look for questions and confusions in their learning and also urged them to find solutions and resources to reconcile the confusions” (p. 21). In a different study, students were placed in different teams based on how they answered a survey that identified the issues that were controversial to them (Jeong, 2003, p. 29). In their threaded discussions, students were to label their posts with agree or
disagree so researchers could analyze their responses. Another instructor assigned roles
to each of the groups in her class:

One student would be the researcher and post, with his or her own words, what he
or she found out about the topic; another would then post a list of pros, while a
third student would be in charge of the cons. Finally the fourth students would
read all postings and ask questions for clarification and/or raise some issues.

(Gaudry-Hudson & Yalda, 2008, p. 99)

By arranging the blog in this way, students were able to gain different perspectives on
their topic. Greer and Reed (2008) used their blog to encourage math students to read
ahead in the textbook. One student wrote, “Not only were we blogging about it—which
was one more interaction with the material—but because we had to blog, we also had to
read ahead. This was the first time I really read the book for class” (Greer and Reed, p.
141). It is exactly this type of epiphany that educators are trying to obtain by employing
Web 2.0 applications in their classrooms.

Positive Effects of Blogging & Online Discussions

In every study evaluated for this literature review, positive effects of blogging
were evident. For Mr. K the positive results included: 1) increased collaborative learning
and a nurturing community of learners; 2) a student-centered learning environment; 3)
reflection; and 4) enrichment to the class (MacBride & Luehmann, 2008, p. 179). The
blog provided students with a forum to voice their thoughts and a place to challenge
ideas; students were able to “construct that knowledge for themselves” (p.179). In
addition, Mr. K stated that the blog provided a means to get to know the students more
quickly, “by day 3 [of school] kids were interacting with me and asking me questions and
really, really engaging me because of a post that I had written on the blog about asking questions” (p. 179). He also added, “I think this was a success for the kids when on a Saturday night, kids are talking in the chat box and they’re talking about math!” (p. 179). Tiene (2000) also reported the class was more “cohesive and involved” when online discussions were incorporated in the class (p. 7). Xie et al. (2007) reported, “their classmates’ blogs or comments provided diverse perspectives and information so that they could more likely gain “a holistic, in-depth view of the content” (p. 19). Xie et al. also found that “the results indicated that all students improved in their reflective thinking skills as time passed by, and the higher a student’s reflective thinking level was, the higher his/her course grade was” (p. 22). Ellison & Wu (2008) found that “reading other students’ blogs was significantly more helpful than reading comments on one’s own blog” (p. 8). One student commented, “I liked the fact that we had to comment on others blogs. It’s cool to get some feedback on what I’ve written…I felt it was really cool when one of the people actually cited what I said in my blog on someone else’s blog. I think that brought everything together” (p. 8). Greer & Reed (2008) found that blogs were successful in “getting students to read ahead of class and fostering better student-student and student-professor communication” (p. 139). They also found the questions posted on the blog to be an asset to their planning:

Based on the questions everyone asked, I was able to frame the entire in-class discussion just about everyday. I knew whether I needed to spend extra time on a specific theorem, or new notation, or whatever other part of the section the most questions came from….Hearing everyone’s questions before I led a day’s lesson helped me to re-focus my attention. (p. 143 & 146)
Mr. K (as cited in MacBride & Luehamn) echoed this thought—especially for struggling students [he wrote]:

Having the scribe post has allowed me really deep insight into one kids [kid’s] head every day. Usually when you have a struggling student, you ask them if they understand what is going on and their first response is no I don’t understand anything. But when the kids has [have] to scribe what happened in class today, their [they’re] forced to wrestle with the material and try to present the best they can what they do understand. (p. 180)

In addition to helping teachers, blogs can help students “to improve their learning and to monitor their understanding” (Gaudry-Hudson & Yalda, 2008, p. 99). Gill (as cited in Ellison & Wu) found “discussion groups can be extremely effective in enabling learning” (p. 3). Krentler and Willis-Flurry (as cited in Ellison & Wu) found that “students’ use of technology had a significant main effect on students’ learning in that the more students participated in the discussion board, the higher their grades” (p. 3). Clearly, blogs can be an effective tool to enhance student participation and achievement.

Limitations of Blogging and Online Discussions

While there are obvious positive effects of integrating blogs and online discussions into one’s curriculum, there are limitations to consider. First and foremost, Ellison & Wu (2008) point out “blogging (like any new technology) is not a panacea and will not independently or autonomously increase student learning. Sound instructional techniques must be developed and practiced in order to achieve increased student learning” (p. 10). MacBride & Luehmann (2008) insist that while blogging can certainly support classroom learning, one must consider the following:
Realized benefits of classroom blogs depended largely on how a teacher chooses to structure and use the blog” … and “the benefits purported in the literature will not be automatic but rather will require thoughtful teacher planning and decision-making grounded in an ongoing awareness of students’ strengths and needs. (p. 182)

In addition, while students today are digital natives, their expertise with technology does not make them an expert in their subject area. Gaudry-Hudson & Yalda (2008) reported “one of the main problems with determining the effectiveness of online posting was the majority of students could effectively use the technology to do a posting, but did not know how to do an effective posting” (p. 99). Instructors in this case designed a tutorial to provide students with guidelines and tips to enhance the quality of their postings.

Instructors need to consider the formality of writing for the blog as well. Ellison & Wu found that “blogging may have encouraged a different, less formal, writing voice” (p. 8). In Greer & Reed (2008) one student reported, “it got pretty laid-back on the blog” (p. 144). Some may see this as a problem or limitation, while others may see this as a positive trait depending on the desired outcomes of the blog. Either way, clear expectations should guide students. Another element to consider is the amount of reading that students and staff must do to keep up with the blog. Tiene (2000) reported that students felt overwhelmed by “the sheer volume of messages” (p. 5). However, the volume depends on how the instructor has structured the discussions and the amount of students in class. Greer & Reed reported “the class size was ideal for using the blog; there were ten of you, each posting twice a week, so before each class I had no more than ten entries to read” (p. 147). While this class size is unrealistic for most K-12 educators, it is
possible to structure the discussions so the amount of posts is manageable for students and instructors. While Ellison & Wu reported that students valued reading other posts and receiving feedback from others, some students did not receive feedback; one student disliked that she had “no comments from other people” (p. 8). This lack of interactivity defeats the purpose of a blog or online discussion. Tiene also reported that students missed “the inability to gather meaning based on tone of voice, body language, and facial expressions” (p. 5). In conclusion, it is important to keep in mind that blogs and online discussions are tools meant to enhance class discussions not to replace them. Tiene reiterates this idea and found that “online discussions were perceived as a valuable addition to in-class discussions, rather than as an acceptable substitution for them” (p. 1). Again, careful planning and clear objectives are necessary when using any sort of technology in the classroom.

**Wikis**

“The poster child for the Web 2.0 movement, the wiki, demonstrates the spirit of open content more clearly than any other application” (Warlick, 2007, p. 36). Originally developed by Ward Cunningham in 1994 for use with computer programmers, their potential for advancing critical thinking has garnered much attention in education (Farabaugh, 2007, p. 42). Allowing students to access and edit web pages in the wiki provides a sense of ownership in their education; learning takes on a new and personal meaning for students. As Lamb contended (cited in Engstrom and Jewett, 2005) “the beauty of wikis is that their structure is ‘shaped from within—not imposed from above’” (p. 14).
Creating a wiki is fairly easy due to the many free and subscription-based wiki software programs available online. Both *PBwiki* and *Moodle* are free online programs that thousands of educators have used to bring creativity and conversation into their classrooms; both applications will be addressed in Chapter 3.

*Uses in the Classroom*

Many people may think of *Wikipedia* when one mentions a wiki. After all, it is the “most famous wiki and the world’s largest encyclopedia” (Warlick, 2007, p. 36). While *Wikipedia* is a great example of a wiki, there are many uses for a wiki in a classroom. At the University of Maryland in Baltimore County, Farabaugh (2007) used wikis for writing exercises and directed reflection on language for her Shakespeare classes (p. 41). Engstrom and Jewett (2005) used a wiki in the *Under Control* project “to promote critical inquiry and collaborative problem solving across the eleven geographically dispersed classrooms that participated in the curriculum project” (p. 12). Education in this sense truly went beyond the walls of the classroom; students collaborated not only with one another but also with students from different schools adding depth and meaning to their educational experience. Davidson (2008) a librarian at the University of Florida, Gainsville uses a wiki for developing subject guides for students and faculty. Sixth graders used wikis to produce “e-literature” (Luce-Kapler, 2007, p. 214). Mary Bold (2006) used them in her family studies classes for collaboration and believes incorporating wikis “supports not only our graduate students’ current coursework but also their development as lifelong learners in use of technology” (p. 12). The variety of ways wikis were implemented in classes only cements the idea that they are a useful and important tool for educators in today’s classrooms.
Positive Effects of Wikis

In comparing various research studies on the value of wikis, every source mentioned the power of collaboration. “Many teachers have adopted wikis to provide their students with opportunities for collaborating in conducting research, processing what they learn, and expressing their findings to wider audiences” (Warlick, 2007, p. 36). Farabaugh (2007) had students select Shakespeare sonnets and post comments on them; then they linked their comments to other students’ comments. Students were also required to respond to other postings. “Both of these methods created a second layer of discourse about language, building upon the first series of paragraphs” (p. 48). The collaboration between students increases student understanding. One student wrote, “the wiki helped us to put together themes in a concrete tangible way, yet I still felt free to brainstorm” (p.48). Another student “regarded it as a way of ‘seeing everything’” (p. 48). In every report, authors discussed students interacting and creating new meaning through the use of their wikis. Davidson (2008) pursued a wiki over a blog in order to “encourage more interaction” (p. 18). In this sense, a wiki is useful because it can provide the most up-to-date information on a given topic. Students enjoy having the ability to access and edit the wiki at any time. Research indicates, “students adapt quickly to coweb technology [wikis and blogs] and appreciate the opportunity to collaborate asynchronously” (Bold, 2006, p. 11). Farabaugh (2007) suggests “group understanding often serves as a foundation for individual thought” (p. 50). Wikis provide a platform for individuals to promote their ideas to the group leading to a better educational experience for class participants. Farabaugh found it difficult to hold students to word limits in the wiki as their “entries grew longer and more detailed as the course progressed” (p. 52).
Even at the 6th grade level, students were engaged in their project using specific images for specific purposes that they could articulate, making connections to popular culture and attempting to use more sophisticated vocabulary (Luce-Kapler, 2007, p. 219). Clearly, the use of wikis in the classroom has value in education.

*Limitations of Wikis*

Like any other educational tool, there are limitations. Warlick (2007) asserts, “they are not as good for publishing as blogs, nor are wikis the powerful idea-developing tool that discussion boards can be” (p. 36). Educators will need to evaluate their objectives to determine the effectiveness of a wiki. While many studies indicated students were at ease with using the wiki, Engstrom and Jewett (2005) reported “Because of editing constraints involved in using a wiki in a large project such as this one, the traditional use of the lab model did not prove to be effective” (p. 15). Since only one person can edit a wiki at a time, several students were unable to add to the wiki. This caused frustrations with both teachers and students. Better organization of the groups and when they access the wiki would alleviate the problem. Farabaugh (2007) also found technology issues interfered with learning and reported “Not all students found the wiki easy. Some students have older equipment or incompatible browsers, insufficient means to upgrade and limited access to university computers; some simply found that using the wiki compounded a workload they already struggled with” (p. 54). As mentioned earlier, students forwent word limits; while some may see this as a positive effect, it undoubtedly adds to the workload of both student and teacher creating a negative effect for some. Tiene (2000) reported students disliked “the sheer volume of messages” (p. 5). Norris, Sullivan, Poirot and Soloway (as cited in Engstrom and Jewett) contend, “that a lack of
access to technology is still a real problem in K-12 schools and is the reason that technology has not had more of an impact on teaching and learning” (p. 15). Another factor to consider when using wikis according to Engstrom and Jewett is:

The register of language in the wiki pages is far less formal than in academic papers; it occasionally descends into email style with uncorrected spellings and typographical errors. Largely, however, this sample is representative: a mix of informal expression with more formal language as the students attempt to explain ideas about language. (p.48)

This should not be viewed as a negative aspect of the wiki depending on the objectives of the assignment. By design a wiki can be a springboard for new ideas and a place where students can grow in their understanding. For example, in the 6th grade classroom, students did not really expand on their writing or connect their writings to other students, however, they could articulate why they chose certain images for the wiki. “Working within the digital medium, they could combine image and print more interactively than before, and, for many students, this experience broadened their possibilities of meaning making in the classroom” (Luce-Kaplar, 2007, p. 220). Another area of concern for educators is the risk of incorrect information appearing on the page since a wiki can be edited by anyone, anytime, or anywhere. However, Lowe (as cited in Bold, 2006) points out that “Wikis are not usually vandalized...and...unwanted changes to the wiki are more likely to result from inadvertent editing” (p. 6). In addition, wikis include a unique feature that allows teachers to look at the history of edits. Teachers are able to look at the pages and how they were changed. To conclude, wikis are a power tool that can enhance learning when objectives are clear and well planned.
Podcasting

“Podcasting is a recent phenomenon that is capturing the attention of academics from all sectors of education” (Edirisingha, Rizzi, Nie, & Rothwell, 2007, p. 87). As with all Web 2.0 applications, the versatility of podcasting makes it a useful tool for any level of education from Ivy league universities to elementary schools. Libraries both public and private also have an interest in podcasting and what it can do to further their services. Educators may use preexisting podcasts, create their own, or have students produce their own. Balleste et al. (as cited in Jowitt, 2008) believes “What attracts educational environments and libraries to podcasting are the simple and inexpensive approaches for developing rich media content (p. 317). There are several applications available for free online including Audacity, VoiceThread, or Gcast. GarageBand is the software that comes installed on all Apple computers; in chapter 3, instructions for creating podcasts with GarageBand will be discussed.

Uses of Podcasting in the Classroom

As with any new technology, Holum and Gahala (as cited in Jowitt, 2008) assert “their [new technologies] full potential will be found in the ways technologies are used as tools rather than in the technologies themselves” (p. 317). Villano (2008) suggests that “content-wise, podcasting is a lot like speechwriting. Educators must train students to know their audience, pick a theme, research talking points, and practice” (p. 30). So while students may be excited to create their own podcasts using pictures and music, the content must be in the forefront. Berk, Olsen, Atkinson & Comerford (2007) comment on the quality of podcasts found on the web saying “they range in sophistication from the truly terrible classroom conversations, complete with background noise and often varied
levels of audio clarity, to the more professional offerings of the ABC’s national radio programs” (p. 410). Several educators have found various ways to create truly terrific podcasts. For example, Mr. Gates second-grade classes created podcasts containing written work, a drawing, and audio of the project about seeds thus “maintain[ing] a comprehensive record of student literacy” (Lamb & Johnson, 2007b, p. 62). With the editing techniques available, students can delete mispronunciations or awkward deliveries and replace them with practiced words. Podcasting incorporates writing, reading, and speaking in a format that is appealing to today’s students. Another way podcasting is incorporated in education is through libraries. One library posts a “tip per week” series (Berk et al., 2007, p. 413) and an online “Survival Guide” for new students (p. 415). Another library created “BookPod…a podcasting ‘hub’ designed to engage school librarians and students in the exploration and construction of podcasts about books” (Beilke, 2008, p. 110). At Drake University, Blaisedell (as cited in Edirisingha et al., 2007) reported “students can access a comprehensive visual glossary of human neuroanatomy (p. 90). Technology staff at The College of St. Scholastica experimented with reading books in the public domain chapter-by-chapter (Bongey & Kalnback, 2006, p. 351). Richardson (2006) also offers great suggestions for podcasting:

Social studies teachers could have their students do oral histories or interviews or reenactments of historical events. Science teachers could have students narrate labs or dissections or experiments to record their processes. Music teachers could record weekly recitals or special events as podcasts. (p. 117-118)

Instructors have also used them to record their own lectures to enhance student learning and provide students who missed class the opportunity to review the missed lesson.
Finally, there is a plethora of podcasts readily available online. These podcasts can be downloaded for teachers to use as a way to enhance their curriculum in an up-to-date and easily affordable way. For more information about podcasting sites, please refer to the resource section of chapter 3.

Positive Effects of Podcasting

“As with most of these other technologies, it’s not hard to see how podcasts might make inroads in schools” (Richardson, 2006, p. 114). While much of the literature on podcasting is anecdotal and practice based, “it may be due to the fact that podcasts and podcasting are very new” (Jowitt, 2008, p. 315). However, research is being done and according to Edirisingha et al. (2007) there are many features of podcasts that support learning, including learner choice and flexibility, access to peer knowledge through listening, and a different way of learning—incorporating informal learning” (p. 96-98). Berk et al. (2007) agree about the importance that flexibility plays in podcasting asserting “part of the appeal of podcasts is that users can listen to these audio files whenever they want, wherever they want, as often as they want and on the device that they want” (p. 412). One student remarked, “I prefer to do it [listen to podcasts] in the evenings when I’m relaxed at home and have nothing else to do instead of trying to do it in the university and rush out to work” (Edirisingha et al., 2007, p. 94). Again, education goes beyond the four-walled classroom into the lives of the students where they can make connections with issues that are relevant to them and their studies. “With a medium like podcasting, even audiences with narrow or specific areas of interest can find resources that meet their needs and interests” (Bongey, Cizadlo, & Kalnbach, 2006, p. 350). There truly is something for everyone and every subject. In addition, the popularity of MP3 players has
increased awareness of podcasts. Berk et al. (2007) maintain “MP3 players are also very easy to use with little technical knowledge required and minimal ‘techno-frustration,’ leading to podcasts fast becoming the language which today’s students understand and chose to use” (p. 412). Educators should evaluate how to incorporate podcasts into their curriculums as a way to capitalize on students’ interests. Fagg (as cited in Lamb & Johnson, 2007b) an Australian history teacher, does not confiscate MP3 players from his students, rather “he integrates them into learning by involving students in scripting, recording, editing, and sharing podcasts about Australian history” (p. 61). Again, technology is simply the tool that draws students into the learning process. In fact, Glogoff, and Lee & Chan (as cited in Preuss, 2008) reported “80% of students believed instructional podcasting added to their learning experience” (p. 4). Similarly, Bongey et al. report “70% of the students report that they have used the podcasts to improve their understanding of lecture material” (p. 6). Several studies cited that students used podcasts to go over confusing and complex information and to study for tests (Bongey et al., 2006, p. 7; Preuss, 2008, p. 9; and Beilke, 2008, p. 109) Likewise, librarians created a series of podcasts and “found the process of creating a podcasting series to be an enjoyable and rewarding experience, and we [they] were inspired by being involved in such a new and recent development—one that may set the way for future innovations” (Berk et al., 2007, p. 417). In addition to positive feedback from patrons, the libraries’ usage statistics showed high levels of use that were continuing. Podcasting was paramount in bringing information literacy skills to light.

Several other studies found similar positive effectives of podcasting. One study found that “approximately 75% of responding students indicated that the availability of
the podcast lectures was more helpful or much more helpful than borrowing notes from a fellow student” (Bongey, et al., 2006, p. 7). Foley (as cited in Preuss, 2008) reported a “10% increase in grades for students in the experimental group (podcasting)” (p. 3). In Preuss’s experiment, “no podcast posted by a faculty member went unused [and] many podcasts in a wide variety of courses were accessed in frequencies equal to or exceeding one access for every two students in the course” (p. 6). Preuss also reported “10 of the 18 courses showed an improvement in cumulative GPA from the control group to the experimental group” (p. 7). Jowitt (2008) also found literature that supported the advantages of podcasting including:

(1) portability, flexibility and convenience (Belanger, 2005; Campbell, 2005; Graham, 2005/2006).

(2) Ability to asynchronously listen whenever on whatever device is chose (Balleste et al., 2006; DeVoe, 2006; McDonald, 2002).

(3) Multitasking while moving about, exercising and traveling (Campbell, 2005).

(4) Access easily via the internet, at the time of need and outside normal opening hours (Belanger, 2005; Eash, 2006; Stephens, 2005).

(5) Ability to repeatedly listen (Belanger, 2005; DeVoe, 2006).

(6) Playback speed can be altered (beneficial for foreign students) (Stephens, 2005).

(7) Subscriptions automatically load into the podcaster (RSS aggregator that allows synchronization with MP3 devices and automatically retrieves updates of new content when connected to the internet (Gordon-Murnane, 2005; Balleste et al, 2006; Graham, 2005/2006).
(8) Choose what you want to listen to (Abram, 2006; Brooks-Kirkland, 2004; Eash, 2006).

(9) Suits auditory learners (Brooks-Kirkland, 2004; Eash, 2006; Ralph and Olsen, 2007).

(10) Enhances services to distance and online students (Ralph and Olsen, 2007). (p. 315-316)

Truly, the possibilities for the benefits of podcasting are great and it is an exciting tool. However, as with all technology, podcasting is simply a tool. Solid instructional content should always guide the use of podcasts.

Limitations of Podcasting

Shim et al. (2007) believe:

Podcasting technology should not be seen as a tool to replace traditional classroom teaching of fundamental principles. Rather it should supplement class materials, so that the students can better understand concepts, theories, and applications that may not have been available during the class. (p. 597)

Berk et al. (2007) agree stating that listening “cannot be discounted as a complimentary tool to more traditional methods (p. 412). While incorporating podcasts and podcasting into the curriculum offers many benefits, the content of the podcasts are the vital component of the lesson. As previously mentioned, students enjoy using podcasts and making them; however, educators need to evaluate how to use the tool to best meet their learning objectives. Educators also need to consider the limitations of podcasting in the classroom.
In the age of information, people can become overwhelmed by the sheer amount of information available to them. It is no different with podcasting. Lamb & Johnson (2007a) assert “Podcasts have become the popular new way to share content on the Internet, so it is easy to become overwhelmed by the thousands of choices” (p. 54). While there are obviously great resources and wonderful podcasts available, not all podcasts are high quality. Lamb & Johnson (2007a) maintain “some programs are poorly edited, causing concerns regarding sound quality, volume-control, and other issues that may interfere with their use” (p. 54). Warlick (as cited in Villano, 2008) maintains, “many K-12 podcasts suffer from lack of focus, with content that rambles and is difficult to follow” (p. 30). Again, carefully planned lessons will help avoid this problem.

While technology is a wonderful tool, it also brings with it challenges. Even though free podcasting software is available online, there can still be challenges with access to the computer labs and student access to the internet at home. Beilke et al. (2008) found that “although the Club does have a high-speed internet connection, the five existing PCs and two Macs were found to be insufficient to support the project. The three PCs did not support Quicktime’s .mov file format” (p. 113). Before incorporating podcasting, instructors should test run their ideas to allow for adjustments to ensure the project runs smoothly. Expecting some issues when incorporating technology into a lesson should be expected, but by walking through the process, educators gain valuable insight in troubleshooting problems that arise.

In addition to technological issues, some professors believe using podcasts might encourage students to miss class since they could access lectures and supplementary materials online. Reed (as cited in Bongey et al., 2006) reported “many professors remain
wary of the technology…[saying]…that it will lead to empty classrooms or serve as a crutch for late-sleeping students, and some worry about course-casting’s intellectual property implications” (p. 355). However, in the study completed by Bongey et al. “95% of the students did not attend class less often as a result of having the podcasts available” (p. 356). As stated earlier, students used the podcasts to review difficult or confusing information and to study for tests. While there are many factors that result in students missing class, access to podcasts online does not equate with student absenteeism in the Bongey et al. study. Again, podcasts are simply a tool that enhances learning for some students. Even in the Bongey et al. study, students admitted that while they thought podcasts were valuable, they still preferred traditional methods (p. 357). One reason why students may have preferred the class lectures to the podcasts was that the podcasts did not include any pictures or text. When a student is in the actual lecture, he/she can see visual aids used by the professor and some thought that was an advantage for attending the actual lectures versus listening to the lecture online (p. 357).

It is also important to note that just because podcasts are made available to students, it does not guarantee that they will listen to them. Edirisingha et al. (2007) reported several reasons why students did not listen to podcasting including:

For many students (44%) lack of time was a main reason for not listening to podcasts. Other reasons were: not being aware of the availability of podcasts on the VLE (22%), technical difficulties in accessing them (22%), [and] not seeing the relevance for their learning of the module (22%). (p. 92)

All of these issues must be addressed in class by the instructor, if podcasts are to be used in way that is truly meaningful for both the teacher and the student. Obviously, some of
the problems are easier to deal with than others. Looking at 22% of the students not even knowing that the podcasts existed is a bit surprising since podcasting was clearly a focus in the class. Instructors need to consider how to make students aware of the resources. However, technological issues can be more difficult to solve since students may be accessing material from home rather than at school where there is technical assistance available. While it is clear that there are limitations with podcasting, the benefits of incorporating podcasting into the classroom outweigh the limitations.

**Summary, Implications, and Conclusions**

Overall, this literature review analyzes the uses of Web 2.0 applications in the classroom as well as the benefits and limitations of such technology. Each application (blogs, online discussions, wikis, and podcasts) clearly has benefits and limitations. Since the use of these applications in the classrooms is relatively new, there is much to be learned and more research needs to be completed. However, students today are enjoying the implementation of these new tools in their education. When instructors use these new tools in their classrooms they are capitalizing on students’ interests.

Chapter 3 will specifically address how to incorporate each of the Web 2.0 applications discussed in this literature review. For those interested in blogging, the handbook will include step-by-step instructions for using Blogger, a free online resource used by educators. For those interested in wikis and online discussions, there will be a section focusing on using Moodle to easily incorporate these applications. Finally, there will be a section devoted to creating podcasts with GarageBand. Each section will include screen shots to facilitate users in incorporating these Web 2.0 applications easily into their classes. The handbook is designed to be a tool for use by media specialists
when they are collaborating with classroom teachers. In addition, there will be a
number of resources and references listed in the handbook so teachers feel well equipped
to begin their journey in the world of Web 2.0 applications.
CHAPTER 3

Application

The educational benefits of incorporating Web 2.0 applications in the classroom is evident in a review of current literature. Studies have shown that the use of various Web 2.0 applications in the classroom can have significant effects on classroom achievement and participation. Therefore, this chapter will be a handbook to be used by media specialists collaborating with teachers who want to incorporate various Web 2.0 applications into their teaching.

Creative Project

Four different Web 2.0 applications will be featured in the handbook in addition to various resources. One exciting aspect of the handbook is all of the applications are available free online or come as standard software on Apple computers. In desperate economic times, many schools often struggle keeping up with technological advances. Teaching teachers how to capitalize on students’ interests through the use of free resources can help stretch already limited budgets. While each application has the potential to be an engaging and motivational tool, careful and deliberate planning are still critical.

Web 2.0 Applications

The handbook shows step-by-step instructions for creating blogs, online discussions or forums, wikis, and podcasts. For those interested in blogging, Blogger will be featured. It was chosen for its ease of use, format, gadgets, and appearance. Directions for incorporating forums and wikis through Moodle, an open-source course management system, will also be included. One benefit of using Moodle is all the teachers in the
building can use it and students will only have to remember one login name and password. In addition, Moodle offers a plethora of other applications and plug-ins; it is great having all the applications in one package. Following the instructions and screen shots, instructors will easily be able to adapt the applications to meet their learning objectives. In addition, directions for creating a wiki using pbwiki is also presented. Pbwiki is another easy-to-use tool chosen for its simplicity, appearance, and format. Compared to Moodle, the formatting is very similar, but the initial setup is more involved with Moodle. Keep in mind that Moodle offers an abundance of additional features. Finally, creating a podcast through the use of GarageBand is explained. This software was chosen because it comes standard on all Apple computers—the standard in the author’s district. It is easy to use, and students are able to create a professional sounding podcast. Some handouts have been included in the handbook; these are one or two page documents that pare down some of the information. Students often like to refer to them for some basic components.

While Web 2.0 applications are all wonderful tools, they do have limitations. Problems always arise in a school setting due to network problems, connection speeds and traffic, and aging equipment. However, careful planning and collaboration helps reduce these. In conclusion, students enjoy working with these applications, and they will definitely be used more in education to inspire, motivate, and engage students in the years to come.
Web 2.0 Applications Handbook
by Shannon Vasseur
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How to Create a Blog with Blogger

1. Go to www.blogger.com. You can take a tour of the site or browse different features available. Click on the orange arrow to start creating your blog.

2. Fill in the blanks and click the orange arrow. If you already have a Google Account, sign in first.
3. Name your blog and create the blog address. You must click on **Check Availability** to be sure the URL is not already in use by another blogger. Then click on the **orange** arrow to continue.

4. Choose a template for your blog, and click the **orange** arrow to continue.
5. The following message will appear; click on the orange arrow to continue.

![Image of Blogger message]

6. The next screen is where users will create posts. It’s similar to a word processor. To publish the post, click the orange button.

![Image of posting page]

7. To add a picture, click on the photo button. Then upload the picture through the browser button. Be sure to select the position you would like the photo to appear. Then click the orange button.

![Image of adding picture]
This is how the blog appears to visitors.

8. Under the settings tab, users can control a variety of things including who can access the page, who can submit posts and comments to the page, etc.
9. Under layout, users can rearrange how the blog appears. Just click on the edit buttons in any category to make changes.

10. To add a plethora of gadgets, click on the “Add a Gadget Button.”
11. To change any of the colors in your blog, click on the 2nd tab under Layout.

12. YouTube videos can be embedded in the blog too. First, find the YouTube video and copy the Embed information.

- Then in the blog under create, click on the hyperlink and paste the embed information in the box. Then click OK.
• Click on “Publish Post” and it’s done. Below is how the video will appear on the blog.

13. People can also add comments to each posting within the blog. Simply click on comments and type the response. The author of the blog can delete any comments.
How to Login to Moodle

1. Access the RHS Moodle Homepage:
   http://rhs.students.elkriver.k12.mn.us/moodle/

2. Click on the course or class. It will bring you to the login screen. The first time you access Moodle, you need to fill out a New Account. Once you’ve set up your account, you will use the Username & Password that you selected.
3. Fill out the information—all fields are required! You must have an email account.

4. An email message will be sent to you to activate your account. Just click on the link in the message.

5. Another email will be sent welcoming you to the class & asking you to update your profile. You may hide your email address if you would like.
**Moodle Directions for Creating Forums or Online Discussions**

1. Turn on the **editing** button (hand holding a pencil) in the Administration Box.

2. Under the **Weekly Outline**, use the pull down menu to add an activity and select **Forum**.
3. Fill in the following information:

a. the name of your forum

b. forum type (standard forum for general use—allows everyone to post multiple messages and make multiple replies)

c. Type your discussion question in the box.

d. **SELECT NO** when asked “Force everyone to be subscribed?” (This is extremely important to avoid a TON of emails being sent at once—this can cause extreme stress to the server!) Other options are available; simply click on the yellow question mark to obtain more information.

e. **SAVE IT!**

The discussion area is set to go!
Adding Posts & Responding to the Forum

1. Click on the title of the forum you would like to participate in under the weekly outline.

![Weekly outline]

2. To add a post, click on “Add a new discussion topic.”

![Add a new discussion topic]

2. Type in the subject and your response to the discussion topic. It works just like a word processor.
3. Be sure to unsubscribe from the forum! This will eliminate emails being sent to everyone’s account!

4. Then simply click “Post to forum” and the message will be posted. Changes may be made within 30 minutes. After 30 minutes, only the teacher and/or system administrator will be able to edit the comment.
Moodle Directions for Creating a Wiki

1. Turn on editing.

2. Choose Wiki from “Add an activity”.

3. Choose the type of wiki that will be used. This chart appears when you click on the yellow question mark by “Wiki Types.”

<table>
<thead>
<tr>
<th>Wiki types</th>
<th>No Groups</th>
<th>Separate Groups</th>
<th>Visible Groups</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>There is only one wiki which only the teacher can edit. Students can view the contents.</td>
<td>There is one wiki for every group which just the teacher can edit. Students can view the wiki of their group only.</td>
<td>There is one wiki for every group which just the teacher can edit. Students can view the wiki of all groups.</td>
</tr>
<tr>
<td>Groups</td>
<td>There is only one wiki. The teacher and all students can view and edit this wiki.</td>
<td>There is one wiki per group. Students can view and edit the wiki of their own group only.</td>
<td>There is one wiki per group. Students can change the wiki of their own group only. They can view the wiki for all groups.</td>
</tr>
<tr>
<td>Student</td>
<td>Every student has their own wiki which only they and their teacher can view and edit.</td>
<td>Every student has their own wiki which only they and their teacher can edit. Students can view the wiki of other students in their group.</td>
<td>Every student has their own wiki, which only they and their teacher can edit. Students can view the wiki of all other students in the course.</td>
</tr>
</tbody>
</table>

Unless the group mode has been forced by the course settings, it can be set with the groups icons on the course home page after the wiki has been created.

- A teacher can always edit every wiki in the course.
4. To edit the wiki click on Edit and the HTML editor will appear. It works just like a word processor; users can add and format text, pictures, tables, etc.

This screen shot shows what the portion of the wiki looks like when it’s being edited.

This screen shot is an example of the Front Page of the wiki as users will see it.
5. To create a link to another page simply use brackets [ ] around the word.

Example: [Macbeth]

If there is a question mark ? that simply means that no information has been added to that link. When you click on the link, it will take you to a new page.

**Caution Warning:** When creating a link to a page in the wiki, DO NOT alter the format. Keep the font style and size consistent throughout! If changes are made, the link won’t work properly! 😞

6. To create a **link to another website**, click on the gray chain link 🌐 in the tool area. Then a box will appear. Provide the URL address and give it a title. It is also important to click on the box that says NEW WINDOW.

7. To add a picture, click on the photo button. 📸 Insert the URL of the image or upload one from any file.

   **OR**

   Select the image from the internet—click and hold on the picture. Click on “Copy Image Location.” Go back to the editing page. Then use brackets [ ] and copy the entire URL address in between the brackets.

Example:

[http://www.wbopera.org/0607/Macbeth/story/graphics/MacbethOpera.jpg]
Access the Site:

1. http://rhs.students.elkriver.k12.mn.us/moodle
2. select Pre-AP English
3. select 4th or 6th hour

Getting Started:

1. Click on the section that you are responsible for creating. If there is a question mark (?) that simply means that no information has been added to that link.

2. When you click on the link, it will take you to a new page. Hit the Edit tab and a text box will appear. You may begin typing your information. Use the formatting tools available on the top of the box.

3. When you're done editing, be sure to hit the SAVE button (right under the text box).

Other Tips:

- To create a link to another page simply use brackets [ ] around the word.

  Caution Warning: When creating a link to a page in the wiki, DO NOT alter the format. Keep the font style and size consistent throughout! If changes are made, the link won't work properly! 😞

- To create a link to another website, click on the gray chain link 🌐 in the tool area. Then a box will appear. You'll need to provide the URL address and give it a title. It is also important to click on the box that says NEW WINDOW. Please be sure the websites you use are high quality sites that will enrich and enhance students' understanding of the play. Please no link to "easy way out" sites such as sparknotes.com.

- To post a picture from the internet, click and hold on the picture. Click on “Copy Image Location.” Go back to the editing page. Then use brackets [ ] and copy the entire URL address in between the brackets.

Example:
[http://www.wbopera.org/0607/Macbeth/story/graphics/MacbethOpera.jpg]
**How to Make a Wiki with pbwiki**

1. Go to [http://pbwiki.com](http://pbwiki.com) and create your account.

![Create your account](image1.png)

2. The following message appears. You should check their email and activate the account by clicking on the link.

![pbwiki message](image2.png)

3. Once the account is activated, users can determine who will be able to view their accounts.

![Welcome to pbwiki](image3.png)
4. The Front Page appears and users can start editing the wiki!

5. Users are able to add any sort of content that they would like!
6. Users can also edit the sidebars (these stay consistent throughout the wiki).

7. To add a hyperlink, click on the hyperlink button 🌐. Then paste in the URL link. You can also target the page to open in a new window by clicking on the target tab and selecting where you would like the new link to open.

8. To add additional pages to the wiki, click on “Create a Page.”
9. To turn text into a link, highlight the text, then click on a page or file in the box to the right of the editing area.

10. Add files to your Wiki by clicking on upload/view files. Then browse and upload the files.

11. Administrators can also check the “Page History” of the wiki to compare the digital footprint left by students.
Creating a Podcast in *GarageBand*

1. Open *GarageBand*.
   - Go to the bottom dock and click on the guitar 🎸 to start *GarageBand*. If it's not on the dock, open up the Hard Drive and look for it under Applications.
   - Click on “New Podcast Episode.”
   - Save As (put in your title name).

   ![New Podcast Episode Image]
   
   This screen appears when *GarageBand* is first opened.

2. Delete any unused tracks by clicking on the track and then ⌘ DELETE.

   ![GarageBand Tracks Image]
3. Click on Track Menu and select New Track. Click on Real Instrument and then Create.

3. Make sure the new track is highlighted.

4. Click on the record (red) button to start recording. Click mouse or record button to Stop.

5. To check the quality of the recording, drag the thin red line (play head) to the part you want to hear and click the play arrow button to start and stop. You may delete sections, etc.

The dark purple reflects the segment being edited. Each track in the podcast will have a different color. The darker color always reflects the segment being edited.

6. To edit the sections, place the pointer over the lower half of the region. The pointer changes to a resize pointer, with an arrow pointing away from the region. Now you can drag the region to edit what you want.
7. To add music, open *iTunes* and drag the song file underneath the last track—a new track will automatically open. **If the song you are using is copyrighted, you may only play 30 seconds of the song in your podcast.**

To adjust the volume on a track, click on the triangle. Then click on the blue volume line and a blue dot will appear. Pull the volume up or down to adjust the volume.

8. **Adding Additional Sounds & Instruments:**

To add a jingle, click on the “eye” icon. Click on the sounds to preview them. To import the jingle, drag it right under the last track. It can be adjusted just like any other track.
The columns allow you to browse the loops by genre, instruments, or mood. To import the sound clip, drag it under the last track.

The musical notes allow you to browse the musical instruments. To import the sound clip, drag it under the last track.

The sound button, allows users to browse the various sound effects. To import the sound clip, drag it under the last track.
8. To add photos to the podcast, click and drag the photo into the podcast track. They can also be dragged from the desktop into the podcast track as well. Pictures may be edited just like audio. Be sure to use photographs and images that are not copyrighted.

9. To preview the podcast, click on the “i” and then the purple podcast track.
Podcasting Basics

1. Open *GarageBand.*
   - Go to the bottom dock and click on the guitar to start *GarageBand.* If it’s not on the dock, open up the Hard Drive and look for it under Applications.
   - Click on “New Podcast Episode.”
   - Save As (put in your title name).

2. Delete any unused tracks by clicking on the track and then ⌘ DELETE.

3. Click on Track Menu and select New Track. Click on Real Instrument and then Create.

4. Make sure the new track is highlighted.

5. Click on the record (red) button to start recording. Click mouse or record button to Stop.

6. To check the quality of the recording, drag the thin red line (play head) to the part you want to hear and click the play arrow button to start and stop. You may delete sections, etc.

- To edit the sections, place the pointer over the lower half of the region. The pointer changes to a resize pointer, with an arrow pointing away from the region. Now you can drag the region to edit what you want.

- To add music, open iTunes and drag the song file underneath the last track—a new track will automatically open. **If the song you are using is copyrighted, you may only play 30 seconds of the song in your podcast.**
- To add pictures, drag them from your desktop to the podcast track (top track).
- You can also edit pictures and music by using the resize pointer shown above.
- When you’ve completed the podcast, see the Media Center staff for help to place it on the podcast server.
GarageBand Basics

Drag pictures from desktop to this track

To show the Media Browser click this or 🎵R

Double click here to preview

Purple tracks = your voice recording

Drag sound effects

Drag songs from iTunes

To adjust the volume of a track, click the arrow. Use the mouse to click on the volume and a little dot will appear. You can then pull the volume up or down.

Click to add a new track

Click to go to the start of the podcast or hit the return key

Click on the EYE to view all of the sound effects

Track Editor: Click this to see the info about various tracks

*The podcast track shows artwork and chapters etc—just click on the tracks to see them individually.

Shows podcast preview and track info or 🎵F

Other shortcuts:

♫T = split region
♫F = join regions
♫Z = undo

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Saving & Exporting Your Podcast

1. Move the purple podcast marker to the end of your podcast.

![GarageBand screenshot](image1.png)

2. Under SHARE, click on EXPORT PODCAST TO DISK.

![Share Menu](image2.png)

3. The file should be a MP4. It will be wherever you saved it—usually *GarageBand* or your desktop. It needs to be this format or it won’t work properly!

![MP4 file](image3.png)

4. Drag this file (it must contain the one with the music notes—not the guitar) to a jumpdrive. Be sure you save it how you want it titled on the webpage.

5. The media specialist will put your podcast on the webpage from the jumpdrive.
Podcast Resources

1st Grade Huckleberry Room http://huckleberry.edublogs.org/

Barrett Project Interaction http://barrettpi.blogspot.com/

BBC Documentary Archives http://news.bbc.co.uk/2/hi/programmes/documentary%5farchive/

Bookin' It! DFES Podcast! http://bookinit.wordpress.com/

Book Voyages http://odeo.com/channel/4750/view/

Brass Band www.brasscast.com/

Cefn Fforest Primary Podcast http://cefnfforest.podomatic.com/

ColeyCast http://coleycast.blogspot.com/

Cranbrook Composers' Podcasts http://cranbrookcomposers.blogspot.com/

Dream Extreme www.dreamextreme.us/Podcast/

Every Object Tells a Story www.podcastingnews.com

Grandview Elementary Library www.grandviewlibrary.org/

Hoffman-Boston Elementary School www.adlington.k12.va.us/schools/hoffmanboston/students/index.html

ilovehistory www.ilovehistory.to.uk/

Isinglass Teen Read Award Booktalks www.hopkintonschools.org/hhs/library/Podcast.html

Jamestown Elementary http://slapcast.com/users/Jamestown/

Mabry Podcast Central http://mabryonline.org/Podcasts/index.xml

Mr. Gates’ Class http://lms.saisd.net/cblog/index.php?blog=6%26cat=84

Mr. Jaffe's Web Site www.cbsd.org/millcreek/jaffe/Podcast/index.html

Planet Sunflower http://stream.usd385.org/%26sim;Sunflower/Site/Podcast/Podcast.html
Radio Sandaig  www.sandaigprimary.co.uk/radio%5fsandaig/index.php
Radio WillowWeb  www.mpsomaha.org/willow/radio/
Reptile Podcast  http://ghshonorsbio.blogspot.com/2006/05/reptile-Podcast.html
Roadrunner Radio  http://rowland.podomatic.com/
Room5's Podcast  http://mom5.podomatic.com/
ULiveWhere  www.ulivewhere.com/

**RSS FEED RESOURCES**

FeedBurner  www.feedburner.com/
ListGarden  http://softwaregarden.com/products/listgarden/

**SOFTWARE**

Audacity  http://audacity.sourceforge.net
GarageBand  http://www.apple.tom/support/garageband/
Podcaster  www.kudlian.net/products/Podcaster/

**ONLINE TOOLS**

Audioblog  www.audioblog.com/
ClickCaster  www.dickcaster.com/
Odeo  http://odeo.com/
Podmatic  www.podomatic.com/

**SOUND EFFECTS RESOURCES**

Freesound Project  http://freesound.iua.upf.edu/
Recordist  www.therecordist.com/pages/downloads.html

References


Podcast Directories

Education Podcast Network http://epnweb.org/


Podcast Alley www.podcastalley.com/podcast%5fgenres.php?pod%5fgenre%5fid=7

Podcast Directory for Educators http://recap.ltd.uk/podcasting/

Podzinger www.podzinger.com/

Yahoo! Podcasts http://podcasts.yahoo.com/

Resources in this Column

Americana Phonic www.americanaphonic.com/

Barnes and Noble Podcast www.barnesandnoble.com/writers/

BBC: In Our Time www.bbc.co.uk/radio4/history/inourtime/

Bob and Rob Show http://englishcaster.com/bobrob/

Bobby Bucket Podcasts http://bobbybucket.blogspot.com/

CNN Podcast www.cnn.com/services/podcasting/

Colonial Williamsburg www.history.org/media/podcasts.cfm

Earth and Sky www.earthsy.org/Kids/

EarthWatch Radio http://ewradio.org/

ESL and Archie Comics www.archiecomics.com/podcasts/

ESL Pod www.eslpod.com/

Family Health Radio http://fhradio.org/
Geography for Travelers http://travelgeography.libsyn.com/
Jefferson Lab www.jlab.org/rss/podcast.html
Kedou Kids Pod www.jtwgroup.com/podcast.htm
Living on Earth www.loe.org/
MathGrad www.mathgrad.com/
Meet the Press from MSNBC www.msnbc.msn.com/id/3032608/
Monticello Podcasts www.monticello.org/podcasts/
NASA Pocasting www.nasa.gov/help/rssnpodcast/
New Scientist www.newscientist.com/podcast.ns
Our City Podcast http://learninginhand.com/OurCity/
Popular Mechanics www.popularmechanics.com/rss/
Reader's Digest www.rd.com/
San Diego Zoo www.sandiegozoo.org/podcast/
San Francisco Museum of Modern Art www.sfmoma.org/education/edu%5fpodcasts.html
Scholastic Podcasts http://content.scholastic.com/browse/article.jsp?id=7692
Science at NASA http://science.nasa.gov/
Storynory http://storynory.com/

Source:

CHAPTER 4

Conclusions and Implications

With the emergence of Web 2.0 applications, educators have new tools to help them accomplish tasks in a new way that is engaging and inviting for students. In reviewing the current research on Web 2.0 applications, the need for further research surfaced again and again.

Lack of Research

Tiene (2000) noted that much of the literature supporting the use of online discussions is anecdotal and that “only a few articles have reported actual research studies wherein data was collected to gauge student reactions to online discussions” (p. 371). Likewise, Shim et al. (2007) asserted their study was the “first kind of empirical research… in examining the perceived value of podcasting” and they found “the emerging phenomenon cannot be properly evaluated yet, since its impact and significance upon media usage and production process are still in its infancy” (p. 587). Similarly, Edirisingha et al. (2007) maintain:

If podcasting is to be successfully used and scaled up in educational contexts, we need empirically based guidelines and models built on “best practice” and sound principles. Although the academic community is showing strong interest, research into students’ experience of podcasting is in its very early stages. (p. 88)

If progress is to be made and best practices are to be established, more research needs to be completed. While anecdotal articles can be a starting point and offer ideas to instructors, research based practices have added value.

K-12 Research Needed
In addition to an increase in empirical research studies for Web 2.0 applications, more research needs to be devoted in the K-12 sector. While there are K-12 studies focusing on Web 2.0 applications, a majority of the literature is focused on higher education. MacBride and Luehmann (2008) noted:

Though much has been written, little of what is published is empirically-based and even less of that work has been peer-reviewed. In additional, typical of the trajectories of many technologies as they make their ways into schools, early experimentation has occurred primarily in higher education. (p. 174)

While the findings in these studies have implications valuable to all educators, certainly one must consider the unique attributes of his/her grade level when incorporating Web 2.0 applications in the classroom. Ellison & Wu (2008) also believe that blogging has educational value, however more research is needed; they state, “It is especially important that we engage with this question now to avoid the common practice of adopting new technologies without gaining large-scale educational outcomes” (99). If teachers are going to invest time and effort into learning how to incorporate these new technologies in their curriculums, they want to be sure they truly have educational value. Empirical research adds credibility and a rationale for including Web 2.0 applications in the classroom. In addition to the newness of these technologies, researchers lack instruments that can effectively measure student interactions. In regards to the value of online discussions, Jeong (2003) noted "these studies fall short in providing a robust methodology for measuring student interactions and examining how specific event sequences affect subsequent discussion and cognitive outcomes” (p. 26). Ellison and Wu
(2008) agree that there are difficulties when assessing the effects of the new technologies including:

Methodological constraints include the fact that true experimental designs are difficult to administer in the classroom setting; ethical and human subjects considerations regarding one’s own students or minors as research subjects; and the wide range of possible explanatory variables (e.g., teaching style, size of class, psychological variables, students’ pre-existing knowledge), which make definitive conclusions difficult. (p. 5)

Given these constraints and variables in K-12 educational settings, it is understandable why there is a lack of empirical studies to support best practices. Due to the popularity of these Web 2.0 applications, there will be more research and studies that will occur in the future.

Technology Resources

There are a plethora of Web 2.0 resources available to educators, however, choosing which one to use can present problems to some educators. While educators who have experience with different resources can offer insight into the benefits and limitations of the medium they have chosen to use, this review of the literature did not find any empirical research recommending or endorsing any specific software programs. Even when studies did include some feedback about the different tools used, the comments were anecdotal and biased. Again different variables such as teaching style and both student’s and teacher’s pre-existing knowledge can affect how they view the software used. More empirical research analyzing the benefits and limitations of various software is needed.
Conclusion

Integrating various Web 2.0 applications into the classroom can have a positive effect on student learning and student participation; however, technology alone does not enhance student learning. Careful planning and consideration must be included when using any of these tools. While it may be time-consuming and challenging at times, the end result is worth the additional effort. Harnessing the benefits of Web 2.0 applications capitalizes on students’ ardent interest in technology paving the way for a more engaging, collaborative, and interactive learning experience for all those involved.
References


