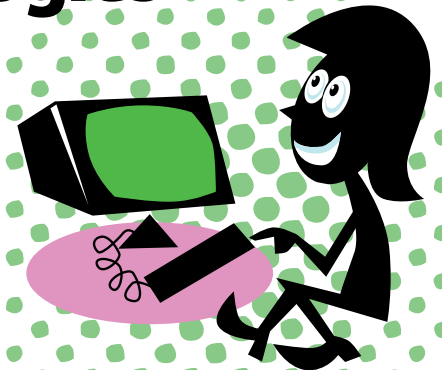




Academic Social Networking Brings Web 2.0 Technologies to the Middle Grades

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Today's young adolescents are "digital natives" (Prensky, 2001); they have grown up with digital technology and use it on a daily basis. It is not unusual for children as young as four years old to be navigating websites and chatting on Webkinz or some other form of social network. Middle and high school students spend more and more time socializing through digital means such as Facebook, texting, or Xbox Live. Today, advances in technology have connected students with more information and people than at any other time in human history (Johnson, Levine, Smith, & Smythe, 2009), thus "challenging and changing the way we teach" (Bauleke & Herrmann, 2010, p. 33).

For today's middle grades students, technology is a natural part of their lives. However, the unfortunate result is that when students enter our schools, we frequently require them to "power down." Where is the interaction? Why is their world shut down because they enter a classroom? Why can't they access abundant amounts of information or share that information with their peers with the click of a mouse, as they do outside of school? A way to address these questions is through academic social networking. In an academic social network, teachers combine the power and influence of social networking with academic work in a classroom setting (Taranto & Abbondanza, 2009). Students are

innately motivated by using social networking in the classroom, because it is just a natural part of their lives. An added benefit is that it provides schools with a vehicle to appropriately model and teach digital citizenship (Ribble, 2009). In this article, we define academic social networking and describe how it is being implemented at Canonsburg Middle School in Pennsylvania.

Academic social networking

As the world becomes more and more connected through advances in information and communication technologies, classroom experiences will need to reflect those same changes. Teachers of students who regularly use Web 2.0 technologies must develop an understanding of new digital literacies and infuse them with their instructional practices (Greenhow, Robelia, & Hughes, 2009). In today's classroom, face-to-face interaction is still a vital component in helping to increase students' knowledge and skills in the learning environment. However, to promote appropriate digital literacies, educators need to combine face-to-face interaction with the virtual world. Unfortunately, K-12 educators have been slow to recognize the importance of digital literacy (Fahser-Herro & Steinkuehler, 2009-10, Winter), and

This article reflects the following *This We Believe* characteristics: Meaningful Learning — Challenging Curriculum — Multiple Learning Approaches

students are “powering down” (Taranto & Abbondanza, 2009) upon entering the classroom.

Web 2.0 technologies are versatile, affordable, and widely available, allowing educators to seamlessly infuse digital literacy experiences into their classrooms. At Canonsburg Middle School, teachers are using Web 2.0 technologies as a way to deliver content and provide opportunities for students to interact in a virtual environment. Most educators have now heard of wikis (e.g., Wikipedia) and blogs (e.g., Blogger), which are common Web 2.0 technologies that allow everyday users, without knowledge of programming language such as hypertext markup language (HTML), to transform the Internet from a “read-only web to a read/write web” (Hazari, North, & Moreland, 2009). Wikis and blogs are examples of social networking systems that allow active involvement of the participants; however, wikis and blogs differ in significant ways. According to Ribble (2008):

A wiki is a collaborative website composed of the perpetual collective work of many authors. Similar to a blog in structure and logic, a wiki allows anyone to edit, delete, or modify content that has been placed on the website using a browser interface. In contrast, a blog, typically authored by an individual, does not allow visitors to change the original posted material. (pp. 148–149)

Wikis are relatively easy to use; therefore, teachers are less intimidated by the technology (Graham & Ferriter, 2009). We considered a wiki to be an ideal way to increase digital experiences in Canonsburg Middle School.

Web 2.0 technologies at Canonsburg Middle School

At Canonsburg Middle School, teachers strive to create a school environment that achieves the *This We Believe* characteristics of an effective middle school (National Middle School Association [NMSA], 2010). Through the collaboration of the school’s administration and faculty, educators are embracing the advances in Web 2.0 technologies and creating multiple avenues for learning through varied teaching approaches. We provide examples from two classrooms, which could be viewed as opposites. Julie Gaetano teaches an advanced English class designed to challenge the school’s highest-achieving students. Melissa Dalbon teaches an eighth grade language arts class designed to help struggling readers achieve higher levels of reading comprehension. Both

classrooms are reaping the rewards of “powering students up” with regular online discussions using classroom wikis. While a variety of wiki providers are available, Canonsburg Middle School uses Wikispace (www.wikispaces.com), which provides a user-friendly interface and free access for K–12 educators.

Web 2.0 technology in Mrs. Gaetano’s class

In Mrs. Gaetano’s Advanced English 8 class, the wiki is used as a forum to discuss thoughts and opinions about books the students have read independently (see Figure 1). Because these books are discussed exclusively on the wiki, the discussions are student-centered and student-driven. While the wiki itself acts as a sort of moderator, the students are truly the driving force behind each discussion. They question, challenge, and respond to one another in a fast-paced, equal-opportunity environment with which they are extremely familiar; this mimics many of their social interactions on the Web outside of school.

For the first wiki discussion, based on Mildred Taylor’s *Roll of Thunder, Hear My Cry*, students were required to post a brief review of the novel and then answer five higher-order thinking questions posted by the teacher. The students were able to see their peers’ responses to each question, which prompted further questions and responses between students. As more



Students engage in online discussions about books in Mrs. Dalbon’s language arts class. photo by G. Taranto

Figure 1

Wiki discussion page. Students and teachers take part in discussions based on a topic or, in this case, the book *Beowulf*.

The screenshot shows a wiki page for 'Beowulf' on the 'cmspayoungreaders' website. The page has a green header with the site name and a navigation bar with 'Beowulf', 'PAGE', 'DISCUSSION (43)', 'HISTORY', and 'NOTIFY ME'. On the left is a sidebar with navigation links like 'New Page', 'Recent Changes', and 'Manage Wiki'. The main content area features a '+ New Post' button and a search box. Below is a table of discussion topics.

Subject	Author	Replies	Views	Last Message
Undeafed	14keighleyh	0	0	Jan 5, 2010 10:57 am by 14keighleyh
Language	14josiiahh	5	15	Jan 5, 2010 10:57 am by 14kristeni
Intense Dragon Killing	14kristeni	3	9	Jan 5, 2010 10:56 am by 14natalied
The Sword	14keighleyh	0	1	Jan 5, 2010 10:55 am by 14keighleyh
Dragon	14jakev	3	11	Jan 5, 2010 10:52 am by 14kristeni
Beowulf- #2	14andrewm	2	5	Jan 5, 2010 10:51 am by 14keighleyh
No Wiglaf?!	14kristeni	2	7	Jan 5, 2010 10:48 am by 14keighleyh
Wiglaf	14josiiahh	1	6	Jan 5, 2010 10:48 am by 14andrewm
Beowulf- #1	14andrewm	1	3	Jan 5, 2010 10:44 am by 14kristeni
Beowulf- #3	14andrewm	0	2	Jan 5, 2010 10:41 am by 14andrewm
Fiction or Non-Fiction?	14kristeni	1	6	Jan 5, 2010 10:40 am by 14andrewm
Review	MrsGaetano	4	18	Jan 5, 2010 10:30 am by 14andrewm
Battles and Beasts	14josiiahh	0	3	Dec 14, 2009 5:36 pm by 14josiiahh
Ogre Family	14jakev	4	15	Dec 14, 2009 5:17 pm by 14josiiahh
Inheritance	14jakev	2	12	Dec 11, 2009 10:55 am by 14andrewm

responses were posted, the students were able to ask each other questions and use each other's ideas as a springboard for further responses, resulting in a dynamic discussion involving everyone in the class.

Next, Mrs. Gaetano created a new wiki for the Pennsylvania Young Readers' Choice Awards Program. Students read 15 novels and nominated their favorites for the award. The wiki was the ideal vehicle for this project, as the students were all reading different novels, and a live, in-class discussion about so many books would not have been possible. Mrs. Gaetano created a page for each novel, but the students themselves were required to post their own discussion questions and respond to the questions posted by their peers. As a result, two or three students discussed each novel in a smaller virtual group through the wiki. The students came up with thought-provoking questions that challenged their classmates

and gave everyone a chance to discuss the novel with others who had read it. The questions posted by the students demonstrated knowledge and understanding of each novel while allowing them to take their study to a higher level through interactions with their peers. This format will continue to be used as the students work their way through the 15 novels in the program, and the discussions should get even better as more students are able to post on each novel's page.

The students who participated in these discussions found it to be a unique classroom experience and said that it is beneficial to their learning. The students' responses to using the wikis in the classroom support the claim by Tapscott and Williams (2008), who wrote, "Mass communication can empower a growing cohort of connected individuals and organizations to create ... unprecedented heights in learning" (p. 15). When asked

if they liked using the wikis to discuss literature, the overwhelming response from the students was “Yes!” Jake said, “It is easy and fast. I liked it a lot,” while Rebekah noted, “It was a fun, new way to share ideas.” Interestingly, while technology is often said to create isolation, these students seemed to feel that using the wiki had the opposite effect when compared to traditional, teacher-led

felt about using technology in class, the students again responded quite positively. Kylie said, “I like it because modern technology is always fun.” Alec concurred: “I like using technology. I think it helps us learn better.” Overall, the students feel right at home using this type of technology in the classroom and enjoy a chance to interact in a way that comes so naturally to them.

I like using technology. I think it helps us learn better.
—Alec, a student in Mrs. Gaetano’s class

classroom discussions of novels. For example, Alec said, “It does let us see each other’s feelings, where, in class, everyone doesn’t get to talk.” Alyssa echoed this sentiment, saying, “Using a wiki is more open because more people can give input.”

In addition to getting everyone involved, from the most vocal to the most reserved students, the wiki also appealed to the students because of its speed. Josiah appreciated the fact that “you can actually get a chance to say something instead of waiting for everyone,” and Isabella commented, “You don’t have to raise your hand, and you don’t have to wait for other people.” When asked how they

Web 2.0 technology in Mrs. Dalbon’s class

In Mrs. Dalbon’s eighth grade language arts classes, the wiki is being used for open discussions regarding a wide variety of classroom readings, including world classic literature short stories, nonfiction passages, and novels (see Figure 2). All of the reading selections are read in class. After the students have read the selections, Mrs. Dalbon then posts prompts on the wiki to ignite the students’ discussion thread. The first couple of discussions occur in school, so the students are actually having these conversations in the wiki’s virtual classroom

Figure 2
Threaded discussion

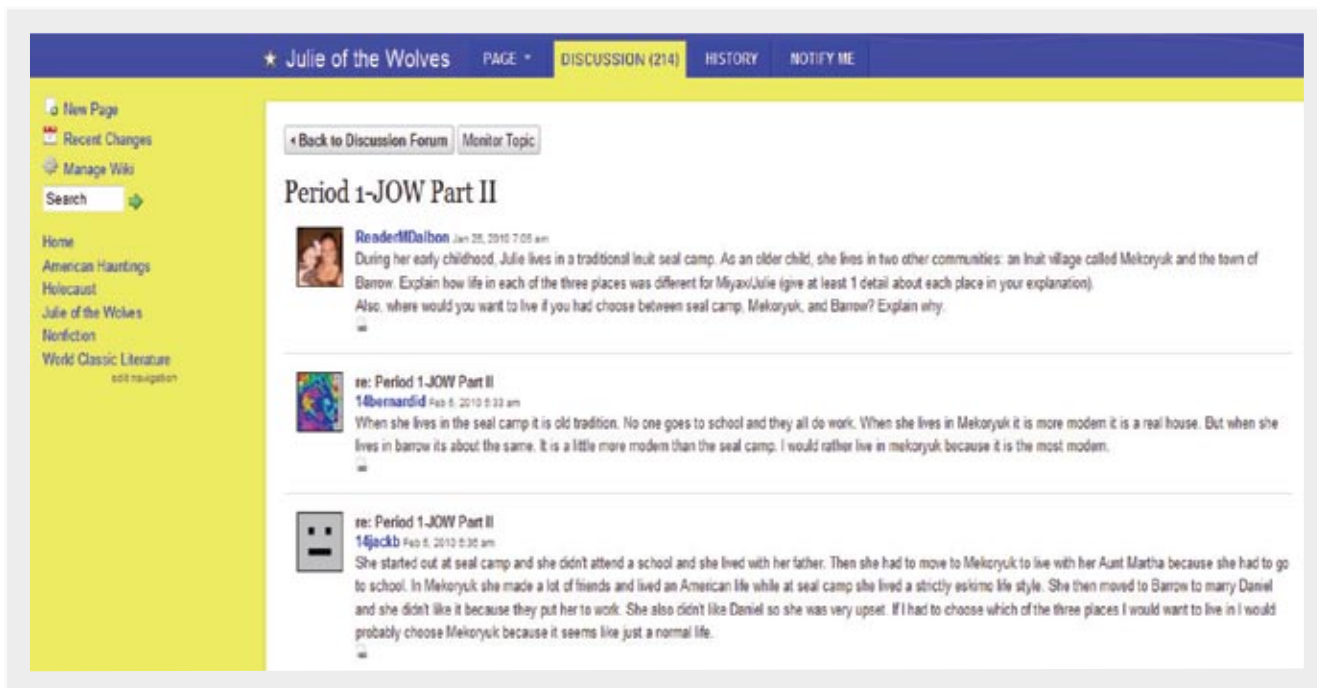


Figure 3
Wikispace scoring rubric

Wikispace Scoring Rubric

This is a rubric for a threaded discussion, assessing the process of replying to a post and discussing it among your peers using the wiki. A total of 8 points can be earned per post/prompt given by Mrs. Dalbon.

Reply Construction (out of 4 possible points)

Reply is short (1 or 2 sentences) with multiple spelling or grammatical errors. It is written in informal language, abbreviations, or text-style language and lacks structure and flow. Reply does not refer to other posts. (1 pt.)

Reply consists of several sentences but may have some spelling or grammatical errors. The text construction is mainly formal, containing few abbreviations or little text-style language, and the reply has some structure, but the entry may not flow. (2 pts.)

The reply has few spelling or grammatical errors, has structure and a good flow, and refers to other posts. (3 pts.)

The reply has few or no spelling or grammatical errors, has a good structure and is formatted to enhance readability, acknowledges outside sources, and refers directly to other posts and builds on their ideas. (4 pts.)

Understanding (out of 4 possible points)

The reply is a simple comment lacking insight and depth; it is irrelevant to the key question, original post, or concept; it does not express an opinion clearly, and it shows little understanding. (1 pt.)

The reply is a simple comment showing some insight, depth, and connection to the original post, question, topic, or concept. The reply may be short and contain some irrelevant material, some off-task opinions or personal comments, and limited understanding. (2 pts.)

The reply shows insight and depth and is connected with the thread, topic, or post. Entry may contain some irrelevant material, but personal opinions are expressed in an appropriate way. The reply shows a good depth of understanding. (3 pts.)

The reply shows insight, depth, and understanding. It is connected with the thread, topic, or post and is relevant, with links to supporting material. Personal opinions are expressed in an appropriate way and are clearly related to the thread or post. The reply or post shows a high level of understanding in matters relating to and surrounding the original post. (4 pts.)

rather than in a traditional classroom setting. The students are given a rubric beforehand (see Figure 3), with expectations and guidelines for the use of the wiki. After the students are familiar with the technology, the wiki discussion threads become out-of-school assignments that students complete on their own time, at school or at home.

The prompts in the language arts classes are primarily focused on issues that are debatable or are designed to help students make personal connections to the text. For example, after completing a unit consisting of a series of six short stories in which each of the main characters learned a valuable life lesson, the students were asked a number of questions such as, "Which character learned the most valuable life lesson and why?" Another prompt was, "What has been the most valuable life lesson you have learned, and how has it changed your life?" The students not only answer the prompts given, but actual conversation builds from their responses as they go back and forth with their opinions, thoughts, and feelings. Some students even post their own questions to initiate discussion threads that still focus on the reading selections yet address matters for which they are interested in hearing their peers' opinions.

Other prompts may involve a debatable issue. For example, the students read a nonfiction passage that focused on the relocation of wolves to certain areas of the United States to help balance out the food chain and prevent them from going extinct. The teacher asked the students to choose a side on the issue: either the side of the farmers and ranchers, who do not want wolves to be placed back in the United States, or the side of the activists, who are in favor of the wolves being relocated. As the students discussed and debated this issue online, some even ended up changing their opinions as they read the arguments posted by their classmates.

It is amazing to read the discussion threads posted by the students, especially because many of them rarely participate in a regular classroom setting due to a lack of confidence in their own abilities. Yet when they are using the wiki, they seem to have some newfound self-assurance. For instance, Kaley, a frequently shy student in one of Mrs. Dalbon's classes, said, "It is not embarrassing, and you do not feel as much pressure as you do in class." She also stated, "It makes learning fun!" Sometimes students refrain from answering a teacher's question in the classroom because someone has already shared a similar opinion or because they are afraid of giving the wrong answer. Using

Figure 4
Academic social network contract

Canon-McMillan School District

Academic Social Network Contract

This class will be utilizing a blog or wiki in conjunction with a discussion board. It will also serve as a tool to engage in collaborative projects and peer-to-peer sharing. As a student, you must adhere to the following items to be acknowledged as an active participant while responding to questions on my classroom wiki:

- I will not use inappropriate language.
- I will not use fighting words or provoke anyone.
- I will not use "chat" language.
- I will try to use correct grammar and spelling.
- I will only give constructive criticism.
- I will only use the name assigned by the teacher.
- I will not give out any personal information about myself or anyone else.
- I am responsible for anything posted in my name.
- I will not plagiarize.
- I will not edit my teacher's page unless instructed to do so by the teacher.
- I will not send messages via the profile link unless instructed to do so by the teacher.

I recognize that breaking any of these rules could lead to any of the following consequences, depending on severity and repetition:

1. Warning
2. Deletion of some or all of the post
3. Temporary or permanent loss of class wiki privileges
4. Disciplinary referral to administrative office

The wiki or blog created by your teacher is considered a virtual extension of your classroom; therefore, all Canon-McMillan School District policies and regulations apply to you while using the website.

I acknowledge that I have received the Academic Social Networks Contract.

I am aware that violation of any of these rules may be referred to the school administration.

(Print Name) _____

(Student Signature) _____

(Parent Signature) _____

(Date) _____

The bottom portion of this form must be submitted to your child's classroom teacher in order for him/her to participate in online discussions at Canonsburg Middle School.

the wiki encourages all students to share their thoughts and feelings, regardless of what others may think or feel. For example, Tyler, who always likes to take part in in-class conversations (and sometimes speaks out of turn), explained, “Everyone can talk at one time, and you do not have to wait turns. If you have something to say, you can share it whenever you want.” Another student, Nate, who usually does not volunteer to answer questions in class, said, “You are not forced to raise your hand, but you can still participate.” Overall, the students in these language arts classes are having fun using the wiki, and, most important, they are successfully demonstrating higher-order thinking skills through this innovative method of communication. The experiences touch on the many benefits of academic social networking in a middle grades classroom, and the qualitative feedback from the students highlights the importance of these types of empowering opportunities in the middle grades classroom.

Appropriate use considerations

The examples provided in this article highlight just some of the many benefits of infusing Web 2.0 technology into the classroom to meet the learning needs of today’s young adolescents. These technologies allow learners to be active participants rather than passive recipients in the classroom, and, in addition to the immediate benefit of the students’ willingness and active involvement, the experiences allow educators to model appropriate use and behavior while in an online or virtual environment. By modeling these appropriate behaviors rather than denying students opportunities to use these tools, middle grades educators can promote digital citizenship among adolescents (Miller, Thompson, & Franz, 2009).

Prior to establishing Web 2.0 opportunities, it is essential to establish rules and guidelines with the students, as the online experience is an extension of the classroom. In the initial implementation of academic social networking during the 2008–2009 school year, the administration discovered that the school district’s appropriate use policy for technology did not provide the necessary guidance for using academic social networking. Students were using the wiki to socialize about things outside of school and using texting or slang writing styles rather than using proper English and grammar. As a result, the administration established a formal regulation to provide the necessary guidelines for offering these

essential digital literacy experiences (Cannon-McMillan School District, 2009), and an academic social network contract was implemented (see Figure 4).

The administrative regulation outlines the teacher’s and the student’s responsibilities when using academic social networking. All students and their parents or guardians sign a contract agreeing to the established terms for online participation. Without close supervision and modeling of appropriate netiquette, the online learning community could become host to unwanted and harmful content (Taranto & Abbondanza, 2009), so teachers monitor the content and discussion threads on the wiki very carefully. If a teacher discovers a student is inappropriately using the wiki (e.g., using vulgar language), the behavior is reported to the principal as if the infraction occurred in a face-to-face situation. Once everyone is clear regarding the expectations of using academic social networking, quality learning experiences can take place using these Web 2.0 tools.

Conclusion

The middle grades are an exciting time for adolescents to explore, learn, and collaborate with one another (National Middle School Association, 2010). By incorporating an academic social network as part of the classroom experience, collaboration and active learning take on new forms, and a transformation from passive learning to active learning may occur. Based on the success with academic social networking in the language arts classrooms at Canonsburg Middle School, an initiative has been started to explore their use in other disciplines such as science, where students could post videos from labs and comment via a discussion board. As teachers become more familiar with using new information communication technologies, middle grades students will see a variety opportunities to use familiar Web 2.0 technologies in their classes.

Extensions

Review your school’s appropriate use of technology policy and discuss the extent to which it promotes or inhibits the use of social networking tools and other technology in the classroom. Discuss the pros and cons of allowing students to use different types of technology for academic purposes.

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