

Curriculum Integration of Web 2.0

By Kelli Emge

Dewey would be pleased. His dreams of a democratic classroom, especially the fulfillment of the notion of “associative living” that threads his work and thought, are finally fully feasible with the aid of social media, also known as web 2.0 technologies. But far from embracing these technologies and using them to their fullest potential in the classroom, teachers are shying away from them, or only using them sporadically, as the tools of social media can get complicated, and must be constantly defended for their use in learning, if they aren’t immediately blocked from school access. The use of web 2.0 does not tend to be widely supported in schools, even though instances of success therein might be applauded, and teachers have found that there are far more obstacles to their integration than there are facilitative measures on the part of curriculum directors and decision-makers.

From time to time, we will hear an inspiring story of how a teacher created something beautiful in the classroom with a blog, or how students learned wonders with a wiki. What we do not hear so often are stories of frustration, when a teacher is challenged for using such a learning tool (because the perceived learning ends were not proven, or the technology was misused by a student), or when the foundation of an entire lesson is blocked due to internet access restrictions in the district. In the reality of our day-to-day procedures, the latter examples are much more common than the former. Curriculum directors do not emphasize the integration of social media in the classroom, leaving teachers to figure out whether their job could be at stake if their efforts to integrate web 2.0 are not immediately successful. Schools are not encouraging the consistent and formal integration of social media in the curriculum; in doing so they fail to tap in to the potential positive impact social media tools could have on student learning and involvement for fear that something can go wrong.

We still have a long way to go if we are going to realize the full learning potential of web 2.0 in our classrooms. We ought to closely examine the research that tells us how students learn best and understand the generation of students we are teaching. We are already in an age where we understand learning as an information dump for the student, and learning evidence as standardized test scores. We are dangerously close to allowing social media to be seen as academic “fluff,” or an activity that we only have time for when the tests are over at the end of the school year, rather than an opportunity for the best kind of learning. We should sound the alarms now, on this topic, because if educators do not cohesively decide that the curriculum must include social media, this will be on the long list of neglected integrations because the research gets ignored and the decision-makers are not the professionals involved in daily classroom learning. In an era when curriculum making has become more politicized than ever, curriculum decisions are made from ignorance and fear, rather than sound reason and research findings.

Web 2.0 as a powerful tool for student learning

Fortunately, we are currently at the point where these technologies have been leveraged in a variety of environments, and for a multitude of lessons that we now have the research to support our use and student access to the tools of web 2.0. Even though the research that will be momentarily examined is heavy on findings of increased student learning across various content areas, it may be important to note that the tools can be *inherently* valuable in their classroom use, as this may help the students engage in future workplace learning. This has not been a popular topic of research, but it is reasonable to point out that we are helping students to be more prepared for their vocations by ensuring they are comfortable and literate with the use of web 2.0 tools. Digital competence and wisdom will be expectation of them in the global marketplace; even though the goal of learning should never be reduced to simple economic gain, we should also embrace the happy fact that we can enable our students’ success in the workforce with our actions in the classroom.

Web 2.0 is characterized by a spectrum of tools and technologies that are usually free, open to all and require collaboration and sharing of information. The classroom teacher can now be a facilitator of student learning and exploration rather than the sole provider of information and editor of student products. One 6th grade music teacher in Portugal decided to leverage web 2.0 technology in the classroom from a constructivist approach. That is, the students should become more active participants in their learning process (Coutinho and Mota, 2011). Students in this project used *podcasts*, which references digital audio content downloadable on the web, to learn music and music history. Various learning activities were conducted around the use and recording of podcasts. Students were divided in groups to tackle their least favorite part of the course, music history. Each group was responsible for directing the class learning about an era of music history, along with famous composers and movements, and even more difficult interpretations of instrumental roles in certain compositions. Audacity.com was used as a recording tool, and the class developed its own site for sharing the information. Teacher intervention was used for guidance and direction, rather than scripted learning ends.

This activity required an educational approach in which students learned from and taught one another, not only by constructing their own knowledge, but also through interactions between colleagues, active involvement in the process of construction, and social sharing of knowledge, known in the literature as communal constructivism. This perspective fit conceptually with the current project, especially in this activity because the students had to build their own knowledge, share it with colleagues, become involved in constructing knowledge of other colleagues, and provide the same information to the global community. (Coutinho and Mota, 2011, p.67).

In response to a teacher-conducted survey at the end of the project, students were asked to rate the activities on a scale of 1-5 on their learning value. They responded overwhelmingly that the activity held their interest, helped them to work in groups, and engaged them in their learning. The podcast project is a great example of how technology can be integrated in the curriculum to help students construct their own learning experiences.

Positive results of web 2.0 use in the classroom are reported by one higher education instructor, who required students to use and contribute to blogs, wikis and other social media throughout a semester course. Self-regulation of learning was measured and compared with student surveys before and after the course, and found to have increased significantly as a result of the independence and self-direction demanded by the web 2.0 contributions. The instructor also observed a change in the way students critiqued each other's work throughout the course. In the beginning of the semester, students commented with excessively supportive feedback (an element of culture along with an undeveloped sense of constructive feedback) on the work of their classmates. But as their comfort level and understanding of web 2.0 collaboration increased, the students began requesting true opinions from one another when it came to their online content. Constructive feedback was delivered more consistently, and positively received and put to use as a result (Cifuentes and Xochihua et al., 2011).

Web 2.0 for greater multi-cultural education

Social media is a great tool for interacting with and understanding other cultures. Penpal relationships are easier than ever to obtain and maintain, and communication with classrooms around the globe is now a possibility.

One year 7 (equivalent 6th grade) Australian educator had the idea of teaming up his class with one of his US colleague's college classes, who were all pre-service elementary teachers. Blogs, one of the more basic web 2.0 tools, were used to facilitate this intercultural collaboration. These password-protected blogs were set up through the Australian department of education website, and 2 Aussies were teamed up with 2 Americans, with an instructor to oversee each blog. Like many web 2.0 lessons, a standard was being addressed (design technology) in a different way, without a scripted learning end. This was a new way of addressing such a standard, as it would not necessarily follow that students would be able to answer the standardized test questions (The US is not alone in the hi-jacking of constructivist learning in a push for high-stakes test scores!) (Davey and Smith et.al, 2009)

The students were all instructed to share ideas and create a plan for constructing an edible lunar vehicle. Everyone first had sift through the cultural variables; the Americans didn't know what was meant by biscuits and lollis (cookies and suckers), and the Australians were stumped by Rice Krispies cereal bars (known to them as puffed rice). The cultural connection was invaluable (Davey and Smith et.al, 2009). Videoconferencing was used at the end to finalize the project. Students were able to seek out and construct their own understanding of science and technology and have a multi-cultural experience in the classroom. The use of web 2.0, even in its most basic forms, has allowed educators who lack various cultural knowledge and diverse backgrounds to step back and allow students to gain the knowledge in a meaningful way. Activities like this can be integrated in what we are already doing in the classroom.

Web 2.0, connectivism and school culture

School culture can be tricky, and is not quantifiable. Most students are individually involved in social media networks, and use these technologies regularly for communication. Extracurricular activities seem to be more open to using social media interactions (like a Facebook page for a club or sports team) which breeds *connectivism*, where students engage in social relationships and feel involved in their community and connected to their learning experience. Students often choose to engage in informal means of communication with classmates as well, which are not attached to any particular school activity. There have unfortunately been instances of bullying as a result, but there seem to be even more instances of students getting involved and feeling like they are a part of their school community. If we remember Maslow's hierarchy of needs, we understand that a sense of belonging should precede the learning process for every student. Leveraging web 2.0 to promote student involvement and connectivism should be a topic for further exploration.

Helping students to feel that they belong is already frequent topic of discussion for teacher professional development. We need students to feel that there are people who care about them at school, that they can make a difference in their community and that they belong

to a group to which they are important. Creating this type of environment with students, while not stated in the formal curriculum, is key to ensuring student attendance and success, and reducing instances of school violence. At-risk students are far more likely to attend school regularly and work hard if they feel that they are an important part of the community.

I have experienced several positive examples of the use of social media in promoting school culture and a sense of belonging and wellness. I teach at a high school with a student population of about 2100. Tragically, a member of the junior class was killed in a car accident this past year, and one of the other passengers in the vehicle was critically injured. News of the event quickly spread throughout the community, and students developed means of communicating through Twitter and Facebook to organize supportive gestures for the grieving family and the injured student. It was incredible to see the way the entire student body came together and supported one another in the wake of such an event. Such organization on such short notice would have hardly been possible without the widespread use of social media. In the past, there naturally would have been students who were left out of the organization process, but the students demonstrated that there are types of public social media that are equal opportunity *includers*.

When students feel ownership in their educational experiences, both formal and informal, this helps them to feel a sense of belonging in their school environment, which is an attribute of student success. If students are already using these tools informally, then surely we can find a way to embrace them formally in the curriculum, promoting them along with their safe and effective use, to help students make the most of web 2.0.

Access issues in schools

One problem I have already mentioned with the lack of integration of web 2.0 in schools is that decision-makers are unaware of their value, or of the research that loudly exclaims what a valuable opportunity we have not yet embraced. However, the main concern for school leaders in integrating social media in the curriculum is safety.

In the above example of science and technology education, "Teaching with blogs and bananas," the instructors had to carefully consider the safety measures that would be required, as opening the lesson for global interaction can also open the classroom to new and unexpected dangers. The use of personal information, last names, email addresses, home address, photos, etc., was prohibited. Parent permission was requested for each student once the assignment was presented and explained. Students who broke the agreed upon ground rules for interaction were removed from the project and put on an alternate assignment. The task of thinking through all the possibilities can be daunting and discouraging, but these instructors went ahead with the assignment, because the value far outweighed the risk.

Notice, however, in the example that the instructors were not blocked from using the blog because of the potential harm. The educators were trusted by their administration to set the standards for the students, and there was no doubt an element of trust that had to exist between the instructors and the students for this learning project to take place. Unfortunately, schools are taking extreme measures in blocking access to social media as a result of fear of liability and a misinterpretation of the Children's Internet Protection Act signed in 2000.

Media specialist Barbara Jansen (2010) writes, "... a growing consensus argues that the character of pedagogy must shift. Rather than remaining a passive consumer of knowledge delivered by the teacher, the student must collaborate with others to solve authentic problems using a wide range of resources to actively create content and communicate ideas" (p. 48). She goes on to argue against the problem of schools playing it too safe in the realm of web 2.0: "...blocking access to educationally viable resources ... restricting access to social media sites in schools also calls into question the erosion of principles the intellectual freedom for youth" (p.48).

Students should be protected by educating them about safe internet use, and teachers should be trusted to create meaningful lessons and monitor student activity, instead of a culture of mistrust being created around incessant and unnecessary blocks on most sites, and

debilitating control of internet use at school, where students are inclined to say, as one of my own recently did, "Its worthless to have this if we can't even use it for good stuff!"

Jansen argues for a much more open approach to school media policies. She maintains that schools should block only harmful sites, along with the ones the school is not willing to support for academics, rather than disabling all social media, which is the current case for many schools (Jansen, 2010). This is the direction we need to run! We see success almost exclusively with the integration of web 2.0 as a learning tool, with high caliber learning as evidence that this is a valuable means to collaborate with and engage today's students.

References

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