Incorporating Web 2.0 Tools into the Classroom

Jamey Bearden

12/10/2015

Dr. Anissa Vega

Fall 2015

**Setting/Context**

“Dawson County High School is a 9-12 public school, with an enrollment of more than 1100 students. It is the only high school in Dawson County. There are approximately 1156 students that attend DCHS. Dawson County High School’s diversity can be described as “mostly White/Caucasian,” as 96% of students are White/Caucasian, 3% are Hispanic, and 1% are African American.

Dawson County’s diversity exists in its socioeconomic data. Dawson County has always been a rural “farm” area, until the past 20 years. Currently, nearly 50% of DCHS students qualify for Free and Reduced Lunch. With the existence of such socio-economic diversity, DCHS students often struggle with access to technology at home. The “I don’t have a printer” or “I don’t have a computer, just my Smartphone,” excuse is rampant.

Dawson County Schools does do a great job keeping up with technology trends and keeping up-to-date hardware in its schools. However, this technology is still lacking in relation to student devices. There is currently an initiative in place to provide iPads or other mobile devices to DCHS students. However, this is still in the pre-planning stages. Even with limited access to student devices at school, incorporating technology into daily classroom use is a must to keep up with millennials and the way that they learn. It is imperative for teachers to incorporate Web 2.0 Tools to keep up with the technology curve and the new learning style of our students.

**Capstone Problem and Rationale**

With the constant development and improvement of Web 2.0 Tools and technology comes the need to stay on top of these trends. Saghir states, “As social networking technologies become more and more popular, and as the millennia generation, increasingly get into teaching profession, the number of instructors who make use of social networking sites is swelling day by day (Saghir, 459). Today’s students do not want to sit in a traditional classroom and hear the teacher lecture and do “practice” activities and workbook pages. They want to be involved, engaged and entertained to some degree. The wave of technology is not going away; it is not something to avoid, but to embrace. As Bar and Sykora state, “Technological changes are accelerating at a breathtaking pace and are challenging the conventional approach to primary and secondary education. As leaders and educators explore the opportunities afforded by the rapid changes, they must also consider how these innovations impact the process of learning and teaching” (Barr and Sykora, 1).

As educators, it is imperative to not only keep up with these trends, but use them purposefully. It does no good to “incorporate a PowerPoint” day after day to say that technology is being used. Who is benefiting from this? Are students really engaged? The answers are no one and no. Hew et al. state, “Although research studies in education show that use of technology can help student learning, its use is generally affected by certain barriers” (Hew et al., 1) Many teachers are afraid of using new technology because they do not how or do not want to know how. They are comfortable in their routines and do not want to waste the time to learn something that will become outdated soon. However, “The implication here is a possible shift from the basic archetypical vehicles used for (e)learning today (lecture notes, printed material, PowerPoint, websites, animation) towards a ubiquitous user-centric, user-content generated and user-guided experience (Duffy, 119). There is a shift in “what is technology” and teachers need to “get on board” to interact with and engage millennials.

By offering classes and tutorials on how to use various Web 2.0 Tools, I can help my colleagues incorporate technology in a more meaningful way in their classes. Already at DCHS, we conduct Wednesday Workshops every Wednesday during teachers’ planning periods. These workshops serve to keep teachers informed, review data, offer training, and conduct “housekeeping” type activities. I plan to offer Web 2.0 Tutorials during these Workshops. If someone cannot attend the workshops, but would like to attend the Web 2.0 tutorials, I will also offer after-school workshops on Wednesday afternoons.

These tutorials, or “Wednesday Web-Days” (maybe that will be catchy), will serve to not only educate teachers on how to use Web 2.0 Tools more effectively, but also to show them what Web 2.0 is. Eventually, teachers will also be able to share and demonstrate how they have incorporated these tools and strategies into their own classes as well. My goal is for each department to have a “technology lead” to help facilitate this process and promote technology integration.

**Objectives/Deliverables**

* Conduct a once a week or bimonthly tutorial for teachers to introduce a new technology and how it can be implemented in the classroom.
* Upload information of each tutorial to DCHS’ Schoology page of each technology for teachers as well as an introduction for those who could not/are not able to attend.
* Train a teacher from each department to offer support and ideas on how to use these Technology Tools in relation to specific curriculum
* Work with administrators to acquire new Web 2.0 Tools, discuss which tools work best for particular classes/situations, provide insights on using these tools in accompaniment to or in place on textbooks.
* Provide feedback to other schools system wide and offer a plan to implement the same type of program at those schools.

**PSC Standards**

**1. Visionary Leadership**Candidates demonstrate the knowledge, skills, and dispositions to inspire and lead the development and implementation of a shared vision for the effective use of technology to promote excellence and support transformational change throughout the organization.

**1.1 Shared Vision**

Candidates facilitate the development and implementation of a shared vision for the use   
 of technology in teaching, learning, and leadership. (PSC 1.1/ISTE 1a)

**1.2 Strategic Planning**

Candidates facilitate the design, development, implementation, communication, and   
 evaluation of technology-infused strategic plans. (PSC 1.2/ISTE 1b)

**1.3 Policies, Procedures, Programs & Funding**Candidates research, recommend, and implement policies, procedures, programs, and funding strategies to support implementation of the shared vision represented in the school, district, state, and federal technology plans and guidelines. Funding strategies may include the development, submission, and evaluation of formal grant proposals. (PSC 1.3/ISTE 1c)

**1.4 Diffusion of Innovations & Change**Candidates research, recommend, and implement strategies for initiating and sustaining technology innovations and for managing the change process in schools. (PSC 1.4/ISTE 1d)

**2. Teaching, Learning, & Assessment**   
Candidates demonstrate the knowledge, skills, and dispositions to effectively integrate technology into their own teaching practice and to collaboratively plan with and assist other educators in utilizing technology to improve teaching, learning, and assessment.

**2.1 Content Standards & Student Technology Standards** Candidates model and facilitate the design and implementation of technology-enhanced learning experiences aligned with student content standards and student technology standards. (PSC 2.1/ISTE 2a)

**2.2 Research-Based Learner-Centered Strategies**   
Candidates model and facilitate the use of research-based, learner-centered strategies addressing the diversity of all students. (PSC 2.2/ISTE 2b)

**2.3 Authentic Learning**  
 Candidates model and facilitate the use of digital tools and resources to engage students in authentic learning experiences. (PSC 2.3/ISTE 2c)

**2.4 Higher Order Thinking Skills**  
 Candidates model and facilitate the effective use of digital tools and resources to support and enhance higher order thinking skills (e.g., analyze, evaluate, and create); processes (e.g., problem-solving, decision-making); and mental habits of mind (e.g., critical thinking, creative thinking, metacognition, self-regulation, and reflection). (PSC 2.4/ISTE 2d)

**2.5 Differentiation**   
Candidates model and facilitate the design and implementation of technology-enhanced learning experiences making appropriate use of differentiation, including adjusting content, process, product, and learning environment based upon an analysis of learner characteristics, including readiness levels, interests, and personal goals. (PSC 2.5/ISTE 2e)

**2.6 Instructional Design**   
Candidates model and facilitate the effective use of research-based best practices in instructional design when designing and developing digital tools, resources, and technology-enhanced learning experiences. (PSC 2.6/ISTE 2f)

**2.7 Assessment**Candidates model and facilitate the effective use of diagnostic, formative, and summative assessments to measure student learning and technology literacy, including the use of digital assessment tools and resources. (PSC 2.7/ISTE 2g)

**2.8 Data Analysis**Candidates model and facilitate the effective use of digital tools and resources to systematically collect and analyze student achievement data, interpret results, communicate findings, and implement appropriate interventions to improve instructional practice and maximize student learning. (PSC 2.8/ISTE 2h)

**3. Digital Learning Environments**   
Candidates demonstrate the knowledge, skills, and dispositions to create, support, and manage effective digital learning environments.

**3.1 Classroom Management & Collaborative Learning**Candidates model and facilitate effective classroom management and collaborative learning strategies to maximize teacher and student use of digital tools and resources. (PSC 3.1/ISTE 3a)

**3.2 Managing Digital Tools and Resources**Candidates effectively manage digital tools and resources within the context of student learning experiences. (PSC 3.2/ISTE 3b)

**3.3 Online & Blended Learning**Candidates develop, model, and facilitate the use of online and blended learning, digital content, and learning networks to support and extend student learning and expand opportunities and choices for professional learning for teachers and administrators. (PSC 3.3/ISTE 3c)

**3.4 Adaptive and Assistive Technology**Candidates facilitate the use of adaptive and assistive technologies to support individual student learning needs. (PSC 3.4/ISTE 3d)

**3.5 Basic Troubleshooting**Candidates troubleshoot basic software and hardware problems common in digital learning environments. (PSC 3.5/ISTE 3e)

**3.6 Selecting and Evaluating Digital Tools & Resources**Candidates collaborate with teachers and administrators to select and evaluate digital tools and resources for accuracy, suitability, and compatibility with the school technology infrastructure. (PSC 3.6/ISTE 3f)

**3.7 Communication & Collaboration**Candidates utilize digital communication and collaboration tools to communicate locally and globally with students, parents, peers, and the larger community. (PSC 3.7/ISTE 3g)

**4. Digital Citizenship & Responsibility**

Candidates demonstrate the knowledge, skills, and dispositions to model and promote digital citizenship and responsibility.

**4.1 Digital Equity**Candidates model and promote strategies for achieving equitable access to digital tools and resources and technology-related best practices for all students and teachers. (PSC 4.1/ISTE 5a)

**4.2 Safe, Healthy, Legal & Ethical Use**Candidates model and facilitate the safe, healthy, legal, and ethical uses of digital information and technologies. (PSC 4.2/ISTE 5b)

**4.3 Diversity, Cultural Understanding & Global Awareness**Candidates model and facilitate the use of digital tools and resources to support diverse student needs, enhance cultural understanding, and increase global awareness. (PSC 4.3/ISTE 5c)

**5. Professional Learning & Program Evaluation**   
Candidates demonstrate the knowledge, skills, and dispositions to conduct needs assessments, develop technology-based professional learning programs, and design and implement regular and rigorous program evaluations to assess effectiveness and impact on student learning.

**5.1 Needs Assessment**Candidates conduct needs assessments to determine school-wide, faculty, grade-level, and subject area strengths and weaknesses to inform the content and delivery of technology-based professional learning programs. (PSC 5.1/ISTE 4a)

**5.2 Professional Learning**Candidates develop and implement technology-based professional learning that aligns to state and national professional learning standards, integrates technology to support face-to-face and online components, models principles of adult learning, and promotes best practices in teaching, learning, and assessment. (PSC 5.2/ISTE 4b)

**5.3 Program Evaluation**Candidates design and implement program evaluations to determine the overall effectiveness of professional learning on deepening teacher content knowledge, improving teacher pedagogical skills and/or increasing student learning. (PSC 5.3/ISTE 4c)

**6. Candidate Professional Growth & Development**

Candidates demonstrate the knowledge, skills, and dispositions to engage in continuous learning, reflect on professional practice, and engage in appropriate field experiences.

**6.1 Continuous Learning**Candidates demonstrate continual growth in knowledge and skills of current and emerging technologies and apply them to improve personal productivity and professional practice. (PSC 6.1/ISTE 6a, 6b)

**6.2 Reflection**Candidates regularly evaluate and reflect on their professional practice and dispositions to improve and strengthen their ability to effectively model and facilitate technology-enhanced learning experiences. (PSC 6.2/ISTE 6c)

**6.3 Field Experiences**Candidates engage in appropriate field experiences to synthesize and apply the content and professional knowledge, skills, and dispositions identified in these standards. (PSC 6.3)

**Project Description** This project will begin on December 19th, 2016 with a meeting with administration to discuss the tutorial schedule and if there are any preferences with the order of Web 2.0 Tools or which technology to incorporate. Then on January 4th, I will meet with department heads to gage interest and explore possibilities for departmental technology leads. Once a month the technology leads and I will meet to discuss any hiccups with certain tools or any ideas that they might have to make the tutorials flow better. I will meet with administration as often as needed (monthly) to discuss progress and if there is anything that we need to aid in this process (going to conferences, monies for purchasing site licenses for anything that is nor free that we feel is important, etc. During these meetings, we will also discuss the positive areas in relation to the tutorials and possible areas of improvement.

During this project, I will provide online resources on Schoology, which is a “school themed” social media site (think Facebook interface). These tutorials will help those who cannot attend the Wednesday Web Days. Eventually, the technology leads will add to this data base with their own tutorials, tips and ways they are also using this technology in their classrooms.

**Timeline**

|  |  |  |
| --- | --- | --- |
| **Date Range** | **Description** | **Technologies** |
| December 2015  - 10 hours | * Meet with Administration * Plan activities | **None – Preplanning Stage** |
| January 2016  -10 hours | * Meet with Department Tech Experts * Web 2.0 Wednesdays * Meet Admin | * **Schoology –** School licensed social media site, teachers can use this to not only communicate with students, teachers, etc. but also to post notes, videos, tests, projects, etc. * **Google Drive –** great place to store and share data |
| February 2016  -10 hours | * Meet with Department Tech Experts * Web 2.0 Wednesdays * Meet Admin | * **Weebly** – provides free websites for teachers or students for projects, unit notes, blog spaces, etc. |
| March 2016  -10 hours | * Meet with Department Tech Experts * Web 2.0 Wednesdays * Meet Admin | * **SMART Boards Interactive –** SMART software online that provides interactive lessons for students and works seamlessly with SMART boards |
| April 2016  -10 hours | * Meet with Department Tech Experts * Web 2.0 Wednesdays * Meet Admin | * **Jing** – Awesome recording tool to make presentions or take screenshots |
| May 2016  -10 hours | * Meet with Department Tech Experts * Web 2.0 Wednesdays * Meet Admin * Teacher Survey 1 (Appendix A) | * **Diigo** – great tool to use to organize your bookmarks. You can add notes to them ,organize them, etc. |
| August 2016  -10 hours | * Meet with Department Tech Experts * Web 2.0 Wednesdays * Meet Admin | * **Wikispaces** – great site that allows for instant collaboration and feedback. Each user can edit the site and add to if if given permission |
| September 2016  -10 hours | * Meet with Department Tech Experts * Web 2.0 Wednesdays * Meet Admin | * **Wikispaces** – way to collaborate with other teachers or to have your student collaborate on an assignment |
| October 2016  -10 hours | * Meet with Department Tech Experts * Web 2.0 Wednesdays * Meet Admin | * **TBB –** This month’s theme will be determined by teacher survey feedback |
| November 2016 -10 hours | * Meet with Department Tech Experts * Web 2.0 Wednesdays * Teacher Survey 2 (Appendix B) * Meet Admin | * **TBD –** This month will have a mini lesson based on survey data and will also be used to learn how teachers have implemented the previous Web 2.0 Tools |

**Resources:**

* Computer (every teacher has been provided a MacBook Air)
* Webcam (already on Teacher MacBook Airs)
* Internet (Wi-Fi available for everyone)
* Microsoft Office (Installed on all computers)
* Google account (already linked by email)
* SMART account (provided by Dawson County Schools)
* Schoology Account (provided by Dawson County Schools)
* Weebly Account
* Jing software (free download)
* Diigo account
* Meeting Place (B18 – for meetings conducted during planning time, my classroom for after school tutorials)

**Evaluation Plan**

To evaluate progress of this project “Web 2.0 Wednesdays,” teacher participants will take two surveys. One of these surveys will be conducted at the midpoint of this project and will ask questions relating to which technologies teachers want to know how to use. I will use this survey data to determine to theme of the last two month’s meetings. The other survey will be conducted at the end of the project and will focus on what teachers gained from this experience. Also, after the first few lessons, teachers will have the opportunity to share how they are incorporating Web 2.0 Tools in their classrooms. Teachers will also be able to provide feedback and post comments on Schoology as well as watch tutorials to refresh their knowledge of particular tools.

I believe that through the incorporation of this process that all objectives will be met. Teacher learners will be introduce to new forms of technology to incorporate into their classes each month. They will be given the opportunity to provide feedback and ask for help through the Schoology site and also through the 2 surveys. “Expert” teachers will also provide help and encouragement, along with support. They will also be able to demonstrate how they incorporate technology. Administration will be able to view and have updates and feedback on the progress being made throughout this time frame.

References

About Dawson County. (2015). Retrieved July 3, 2015, from <http://dawsoncounty.org/visitors>

/about-dawson-county/

Alexander, B. (2006). Web 2.0 A New Wave of Innovation for Teaching and Learning?

*EDUCause Review,* March/April 2006, 33-44.

Barr, D., & Sykora, C. (2015). Learning, Teaching and Leading A Comparative Look at the

ISTE Standards for Teachers and UNESCO ICT Competency Framework for Teachers. *White Paper,* January 2015, 1-4.

Ciampa, K. (2013). Learning in a mobile age: An investigation of student motivation. *Journal of*

*Computer Assisted Learning,* *30*, 82-96. doi:10.1111/jcal. 12036

DCHS Home. (2015). Retrieved July 3, 2015, from <http://www.dawsoncountyschools.org/k12>

/DCHS/

Duffy, P. (2008). Engaging the YouTube Google-Eyed Generation: Strategies for Using Web 2.0

in Teaching and Learning. *The Electronic Journal of E-Learning,* *6*(2), 119-130. Retrieved December 7, 2015, from [www.ejel.org](http://www.ejel.org)

Hew, K., & Brush, T. (2006). Integrating technology into K-12 teaching and learning: Current

knowledge gaps and recommendations for future research. *Education Tech Research Dev Educational Technology Research and Development,* 223-252.

Min, K., & Siegel, C. (2011). Integration of SMART Board Technology and Effective Teaching.

*Education Faculty Publications,* (54), 38-47. Retrieved November 1, 2015, from http://digitalcommons.fairfield.edu/education-facultypubs/54

Saghir, A. (2015). Efficient Use of Social Networking Site in Classroom Education. *Journal of*

*Emerging Trends in Computing and Information Science,* *6*(9), 6-6. Retrieved December 7, 2015, from <http://cisjournal.org>

Stearns, Susan C., "Integration of Technology Into the Classroom: Effects on reading

comprehension" (2012). Research Papers. Paper 248.Retrieved November 15,2015 from  http://opensiuc.lib.siu.edu/gs\_rp/248

Su, B. (2009). Effective Technology Integration: Old Topic, New Thoughts. *International*

*Journal of Education and Development Using Information and Communication Technology,* 5(2), 161-171. Retrieved November 15, 2015, from <http://ijedict.dec.uwi.edu//viewarticle.php?id=620&layout=html>

Tarantino, K., McDonough, J., & Hua, M. (2013). Effects of Student Engagement with Social

Media on Student Learning: A Review of Literature. *The College of William and Mary EJournal,* (Summer 2013), 1-13. Retrieved December 7, 2015, from <http://studentaffairs.com/ejournal/Summer_2013/EffectsOfStudentEngagementWithSocialMedia.html>

Welikala, A. (2012). Integrating Selected Web 2.0 Tools Into the High School Curriculum to

Enhance Student Engagement and Promote Learning Among the Millennial Generation. *University of Oregon Applied Management Program,* 1-108.

Appendix A

Mid-Year Survey Questions:

1. What types of Web 2.0 Tools do you fell most comfortable using?

2. Which have been your favorite so far?

3. Going forward,what types of Technology Tools would you like to learn about? If there is/are particular items, please state:

4. How do you feel the pace is going? Should we cover more tools in one month? Less? Please explain:

5. Do you like meeting on Wednesdays? Is there another day that would work better for you? Time?

Appendix B

End of Year Survey

1. What did you enjoy most learning about?
2. Did these tutorials improve your knowledge and use of technology?
3. Which tools have you incorporated into your lessons?
4. Do you feel that you can relate better to students’ learning needs by using these tools?
5. Can you tell a difference in student participation when using these tools? If so, how? (more, less, etc.)
6. In what ways have these tutorials helped you? Your students?
7. What can we improve on?
8. How can we improve the resources on the Schoology site?