Web 2.0 in the Classroom

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Abstract

As a public librarian I see more and more very young patrons on the public internet. I am interested in Web 2.0 and its relevance in the classroom setting. I reviewed many articles and other material concerning students and the Web. I focused mainly on how early students are being introduced to the electronic age. How the Web is being used in literacy improvement and does the Web increase students learning abilities. The pressing issue from the literature is a concern for those students who do not have access to the computer at home. It seems obvious that the earlier a student is introduced to the basics of computer operation the more likely they are to have a jump start over those who are unfamiliar with computers.

*Keywords*: Web 2.0, Electronic communication.

The Web 2.0 in the Classroom

The purpose of this review of the literature is to ascertain what the professional and academic postulations are concerning Web use and the young learner. How is Web design in the new Web 2.0 world being utilized to promulgate learning and literacy skills in K-12 classrooms? What is the benefit to the classroom teacher through utilization of the Web?

This review of the literature will also shed some light on where Web based instruction is now and give some foresight on what the future holds for young learners, classroom teachers and the development of programs to move young learners into the electronic information age.

Web design for young learners has a short history compared to educational design prior to the Web. Educational processes before the electronic age were a culmination of centuries of experience and studies of success or lack of success in the methods utilized by the classroom teacher. Just a little over twenty years ago the explosion of computing technology influenced many educators to make predictions for the future of education through electronic tools. The year 1998 saw the publication of one of the first future sighted books concerning the coming of the computing age for the classroom. This book, *Handbook of Literacy and Technology,* Reinking, McKenna, Labbo and Kieffer (1998)gave a glimpse at the possibility of a new literacy that would eventually do away with the normal printed books for the classroom. This book spoke of the World Wide Web and its future in the literacy instruction of young learners.

The ability to use the Web based tools and process Web based information enables college students to manage their research time more effectively than college students who have had no experience with Web based activities. It is becoming obvious that the earlier a student is introduced to Web protocol the student will be more successful in utilizing the Web as a college student (Villano, 2008).

As the Web becomes more integrated in the home through social networking and as more homes become connected to the Web we find toddlers using the mouse and the keyboard. Just ten years ago young parents were buying picture books for their toddlers and now these same picture books are being revealed on the computer screen with the next page not being turned but accessed by a click of the mouse. As these toddlers move into the school system they are already computer aware and many of them are computer savvy.

The classroom teacher is aware of this incredible leap into the future and many teachers are hustling to come into the electronic age themselves. In a recent journal article found in “Distance Education,” Oliver, Kellogg, Townsend, and Brady (2010) reported on the need of elementary and middle school teachers developing online courses for a virtual school. Some of the concerns in the study were where some students who had internet access at home would progress more rapidly than those students whose home were not Web connected. Another concern in this study was the need for technical assistance to support the classroom teacher in developing their virtual classroom. This study is a powerful presentation showing both the weakness in the teacher’s computer skills but also the strengths they developed when they improved their skill levels in accessing the Web tools.

There is no turning back the clock. Integration of computer learning in the young learner’s life is imperative. John Feather (2008) in his seminal book, *The Information Society*, informs us of the ever increasing speed of the information society. He also speaks of the social networking websites and how fast they are enveloping society. As the information age develops the need for early learners to become aware of the electronic age becomes more and more evident.

As an example of the rapid development of use of the Web in education systems and instructions based on Web 2.0 we discover a new evolution in Web development. In a journal article titled, “Coming Soon” (Waters, 2009) the author expounds on Schools Interoperability Framework (SIF) or 3.0. SIF 3.0 is here and will have an impact in future design for classroom learners and educators.

SIF 3.0 frameworks are providing integration of educational format, allowing teachers to share data more effectively. SIF 3.0 is part of the new Web 3.0. This is where machines can read Web information and automatically send emails on specific subjects. You as a teacher can ask your computer to send you an update on a specific subject such as instructional lesson plans for third graders and Web 3.0 will be on alert for articles and email you any pertinent information as it appears on the Web. Web 3.0 is becoming known as Web 3D. The Web becomes artificial-intelligence (Metz, 2007) and this leads me into an article that creates goose bumps up and down my body.

Brace yourself for the possibility of using humanoid Robots as classroom instructors Chih-Wei, Jih-Hsien, Po-Yao, Chin-Yeh, and Gwo-Dong (2010) found these robots can perform repetitious actions for those students who need oral practice in language. In this study it is shown that children in the early grades learn through repetition as the robot would read words the students would repeat them. This freed the teacher up to concentrate on the students’ individual pronunciation and intonations. The conclusion of this study was that robots would become the main support tool of the classroom teacher. Robots in this article were humanoid in appearance but not so humanoid that you would mistake them for real people.

In April 2008, the North Carolina Virtual Public school developed their first courses for elementary and middle schools. This was a pilot course ready to incorporate Web 2.0 and 3.0 in classroom models. They based their ideas on pragmatic planning which included improvement of software usability and teacher proficiency. They used several sources for their guidelines. They followed the guidelines of New Zealand’s e-learning programs as it had a good online pedagogy. They also discovered that the use of synchronous communication tools for students who were not self-directed (Oliver, Kellogg, Townsend & Brady, 2010).

The push to educate younger students through electronic communication is based on the reality that many students are already there. The tools used in social networking are available to the classroom teacher. As these students enter school they have already been exposed to Facebook, MySpace, Webkinz, Google and many other places on the Web. Many children are already aware of the electronic age it’s in their home and in their metal processes.

According to a paper published in “THE Journal” (Villano, 2008) we find the best candidates for the data base professions are those who got started as K-12 students. In this same study the author shows through survey that students today are more in tune with 21st Century skills than are the adults who design and present these skills.

One of the more powerful presentations concerning literacy through Web based instruction was found in the Australian Journal of Language and Library. Beavis and O’Mara (2010) show that interaction between the real and virtual world push the boundaries of Literacy.

This article expounds on the use of computer games to develop critical literacy skill. As the student advances in the game there needs to be more cognitive information. It is available to the student but the student must discover the keys to the game’s success through reading instructive material and understanding what is read. Within the context of game play complex literacy skills must be developed for higher success in the game (Beavis & O’ Mara, 2010).

Young children even children as young as three are accessing social network sites (SNS). Examples of these sites include Facebook, MySpace, Webkinz, Farmville on Facebook and many more. Classroom teachers and curriculum advisors must become aware of the need that these very young children have to utilize these sites, but also be informed of the inherent danger in interacting in the cyber world. In a study concerning Web sites for young children in 2008 it was discovered that six million children were spending over two hours a day on Webkinz (Bauman & Tatum, 2009).

This study also speaks to fears of young children being introduced to social networking before they are developmentally ready to enter that world. Also, there was a fear mentioned that the brain in young users develops differently than the brain of same age children who aren’t on the net. This study also suggests that children may be missing out due to lack of real in-person relationships (Bauman & Tatum, 2009).

Moving away from the very young the next paper I read pointed toward some very mixed results concerning student-centered learning. Hannefin and Gabbitas (2009) found in one study that students who practiced tech enhanced mathematics did better than those who had no tech support. Yet, in another study they found eighth graders who used no technology aid scored higher than those who used the technology. This study also suggested that the work load may be the cause of the different outcomes. It indicated that the students who did best with technological learning methods came to class more aware of computer technology and the reverse was seen in students who had little computer savvy from their past experiences (Hannefin & Gabbitas, 2009).

I have saved this final study to lead into my conclusion of this literature review. Clark, Logan, Luckin, Mee, and Oliver (2009) investigated the Web 2.0 world outside the classroom and then back into the classroom. They discovered school age children are living in a Web 2.0 world outside of the classroom. In fact the school age children of today are denied the use of Web 2.0 in the school setting and at the same time are being directed to use the Web world in their class work. This study suggests that teachers and administrators need to facilitate more flexibility in the potentials of Web 2.0 and related technology and slow down their effort to make rules against the usage of the internet, texting, cell phones, etc. This study focuses on a synthesis of the Web as it is used by the students and in the classroom. It speaks in a bold voice directing the teachers and curriculum developers to utilize the skills the students have already developed (Clark et al., 2009).

**Conclusion**

After reading this material referring back to my proposed questions I have discovered some interesting pitfalls and uplifting insights into the Web2.0 world and how it is being approached in the classroom.

As noted in the review Web 2.0 is moving into Web 3.0. Web 3.0 is actually not a replacement of Web 2.0 but an evolutionary step in synthesizing 2.0 into a more usable tool in the classroom.

It appears that there is going to have to be more basic classes for children who have not been exposed to the Web at home. There is obviously a gap between the children who have had no computer experience at home and those who have been on computers for as long as they can remember. As I mentioned earlier in this review many 3 and 4 year olds have mouse and keyboard experience and know that correct clicks will give them their looked for response.

The most startling piece of reading was that many students are ahead of their teachers when it comers to navigating the Web. It is shown that many teachers are working hard to enter the world of Web 2.0 and learning how to be creative in building lesson plans that utilize such tools as WebQuest. However, it appears that schools may need to implement an introduction to computer classes at the first and second grade level to aid those students who haven’t had any exposure to the World Wide Web. It is also shown that the inherent dangers of young students on the Web need to be addressed. There is a need for instruction in Web etiquette and a real strong effort in educating these young Web users on how to protect themselves from Web predators.

The Web is now part and parcel of our lives. In the past educating a child was basically making them aware of the three R’s it is now the R’s plus a W. The Web, “we are in it” and we need to know what it really is and what skills we must develop to live a rich and productive life while we are in the midst of it.

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