The Role of the Teacher-Librarian in Promoting Digital Literacy

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Introduction

The early twentieth century is an exciting time to be a teacher librarian because of the potential impact digital technologies hold for learning. Not only are digital technologies advancing daily and readily available, they are also a medium students are, for the most part, intrinsically motivated to use for a variety of purposes. In their work in elementary school libraries, teacher librarians have a unique opportunity to integrate digital technologies into the learning environments of young people today.

School District Support for Digital Technologies

My school district has demonstrated support for the integration of digital technologies into education. This school year each elementary school library has received four brand new computers and each high school has received six, totaling over 500 new computers in school libraries in our district. Along with the hardware, teacher librarians are being given the opportunity to attend after school workshops to increase their familiarity with and use of these computers. For example, I have been personally involved in the delivery of a workshop series focusing on using weblogs in the school library program. The workshops have introduced teacher librarians to relevant weblogs where they can participate in professional dialogue. Each teacher librarian was encouraged to create their own weblog for their school library program and to explore other digital technologies in a casual and supportive environment. These exciting offerings have created a buzz amongst the teacher librarians in the district, causing them to notice the value and potential which digital technologies hold for learning.

My Related Experiences as a Student in K-12

I consider myself lucky to have grown up with the development of a variety of digital technologies that are now a part of my everyday life. In grade school I was given the daily opportunity to visit the school computer lab to practice and test my typing skills. Moving into high school computer class, I was taught how to create basic web pages using HTML code. During these years, word processing became a staple for completing assignments and impressing my teachers by handing in typed work. Because of my proficient typing skills I was able to complete these tasks quickly and confidently.

My Related Experiences in University

At university I was exposed to a whole new realm of computer use. Introductions to email, online libraries and other interactive internet tools opened up a new way of learning and socializing. Now as a student completing my Masters degree in an online environment, I am amazed to recap the growth of my own learning in conjunction with the development of digital technologies. On a daily basis I have been able to engage in learning topics through a collaborative internet tool known to me as WebCT. WebCT is the University of Alberta's online classroom program that allows me to communicate with fellow students and instructors online and to interact with course topics and material. Working on WebCT has given me a very concrete example of how digital technologies can impact and transform learning in this digital age.

My Experience as a Teacher-Librarian

As a teacher librarian in an elementary school, I am now experimenting with digital technologies that can be used to impact and transform learning for my students. I have been provided with the hardware to integrate digital technologies into my school

library program and I am excited to continue my learning and to discover how these powerful tools can increase student interest and participation.

My Growing Interest in Digital Literacy and Technology

I can pinpoint two experiences that have led to my interest in digital literacy and in related technologies. Firstly, I noticed that students were extremely motivated to use digital technologies to assist in their learning but needed direction and guided practice to become efficient users of them. The second involved my own experience using digital technologies in a recently completed Masters course entitled Information Technologies for Learning. This online course challenged me to use and create my own digital technologies including a weblog, a wiki, a social bookmarking account, a virtual school library webpage, a photosharing account, voicethread account and other examples of collaborative and interactive mediums. Through this course I realized that digital technologies provide outstanding learning experiences when one possesses the skills to use them effectively. The skills necessary are digital literacy skills.

I became interested in the field of teacher librarianship when a mentor, also a teacher librarian and leader in our district, approached me about my strengths and the ways in which they fit the job of a teacher librarian. After our discussion about the possibilities for flexibility, freedom and implementation of own ideas and passions to further student learning in the realm of information, I was captivated. Shortly after I was given the opportunity to work in my first job as a teacher librarian and begin developing a school library program. The professional autonomy of my library position and my subsequent learning and experiences have brought me to this place where my passion and ideas are focused around integrating digital technologies into the school library program.

It is evident in research and in my professional experiences, that digital technologies are the present and the future of communication and learning. For this reason it is important that digital literacy emerges as a focus in the field of education, specifically through the work of teacher librarians. Schools need explore the importance of developing digital literacy skills and how the work of teacher librarians can develop these skills in elementary school students through the elementary school library program. Together, teachers and teacher librarians can work towards developing digital literacy to give students the tools they need to succeed in our digital society.

Literature Review

The Net Generation

Today's school generation has grown up in an evolving digital age (Pletka, 2007). Students have witnessed the role of technology change from an information provider to a collaboratively developed digital tool that is user-friendly. Most commonly referred to as the Net Generation, these students grown up connected to others on a global scale. These connections are shaping their lives as

> action-oriented problem solvers [who] see technology as their primary tool; they define their identities by shared interests and experiences; they herald creative thinking, empowerment, and problem solving as key qualities in the new global economies; and they see themselves as competent pioneers in their personal and shared futures. (Asselin & Dorion, 2008, p. 2)

To ensure that the Net Generation is digitally literate, it is important to understand who this generation of student is and how they currently use digital technology.

In his book, *Grown Up Digital*, Don Tapscott (2009) outlines his research conducted with nearly 6,000 people from the Net Generation living in various developed countries including Canada. To identify ways the Net Generation differs from other generations, Tapscott (2009) compares his findings to interviews conducted with 800 people from Generation X and the Baby Boomer Generation. Most applicable to education are the conclusions that the Net Generation is collaborative, relational and innovative (Tapscott, 2009). These characteristics will direct the way in which they use the digital technologies available to them. With a collaborative desire to work together, to learn together and to socialize, the students of the Net Generation will use digital technologies as a medium to do so. Being innovators, the Net Generation not only consumes new digital innovations but also participates in the creation of them by working towards creating something better. Knowing the characteristics of the Net Generation can inform the practice of teacher librarians as they guide this group towards digital literacy.

Understanding how the Net Generation currently uses digital technology will also impact the work of teacher librarians. Research conducted in Australia shows that the Net Generation uses social networking sites more than any other interactive technology. In her research, Combes (2008) reports that the Net Generation "uses technology to be connected more than anything else, and they use it for entertainment" (conclusion, ¶ 1). Students are changing the ways in which they communicate by "using social networking sites such as MySpace and Facebook as an alternative to email" (Combes, 2008, findings, ¶ 15). Although the Net Generation learners prefer to use technology to be social and to

be entertained, when the need arises they will use technology to find information (Combes, 2008).

Although the students in classrooms today are naturally motivated to use digital technology, are they able to use it efficiently without instruction or guidance? What role does education play in digital literacy? What is the current definition for literacy in a digital world? How can teacher librarians assume a role in helping the Net Generation to be digitally literate? Based on current research and professional literature, an exploration of these questions follows.

Educating Students to Become Digitally Literate

Although the Net Generation has grown up in a world saturated with digital technologies, they are not necessarily effective users of these technologies. Eshet-Alkali and Amichai-Hamburger's (2004) research exploring the cognitive skills necessary in digital environments, shows that the Net Generation, in comparison to older generations, is generally not an effective user of information. Students' low information literacy skills "reveal their weakness as educated consumers of information and suggest that they can be easily manipulated by biased or false information" and that they are "not overly capable of making good evaluations and assessments of information" (Eshet-Alkali & Amichai-Hamburger, p. 426). This is echoed by Geck (2006) when she speaks of the Net Generation as "adolescents [who] are amateur internet searchers lacking skills in evaluating content and using resources other than popular internet search tools such as google" (p. 19).

Aviram (2006) lends credence to the importance of specific instruction by stating, "the digital era is not going to disappear, and the need for education to respond to the

growing digital tide is rapidly increasing" (conclusions, ¶ 6). Not only do students of the Net Generation need to be taught digital literacy skills, they need this instruction focused within the technologies they are already using and will be required to use in the future (Asselin & Dorion, 2008; Eshet-Alkali & Amichai-Hamburger, 2004; Geck, 2006). Educators should include the teaching of these skills within authentic learning opportunities to shape the future of the Net Generation.

> If schools don't take steps to teach this generation of students how to use electronic sources effectively, then our future citizens will be unable to operate in a world where information is the key to educational, social and economic success. The world and technology will continue to move forward and the information landscape will become more complicated, overloaded and dense, as business and government place everything including service delivery online. The Net Generation and those who follow, however, will remain lost forever in virtual space. (Combes, 2008, conclusion, ¶ 2)

The need exists for educators to provide teaching and guidance in order to equip students for the digitally rich environment in which they currently reside and will contribute to as citizens. For this reason, it is necessary for teacher librarians to clearly understand digitally literacy.

Defining Digital Literacy

As technologies continue to develop, the understanding of literacy is expanded due to the ways in which people communicate, learn, socialize, work, teach, campaign and interact through digital technologies today. Functional literacy is often thought of as skills including reading, writing, listening, speaking and viewing (Asselin & Doiron,

2008; Merchant 2007). These skills form the basis for digital literacy and cannot be lost. Instead educators, including teacher librarians, can build on functional literacy skills as they endeavor to develop digitally literate students. "Just as we must learn to read and write the alphabet to develop functional literacy, so too must we learn how to 'read' visual images, discursive practices, personal ethics, community actions, cultural events, global developments, and humanity in general" (Burniske, 2008, p. 2). Building upon a foundation of functional literacy, digital literacy can equip the students of the Net Generation for their daily experiences in the digital world.

What is digital literacy? Many definitions have been given in the field of education; however, the following definition proves to be most comprehensive after reviewing many descriptions of the term. The definition developed by teachers in the North Vancouver School District (2007) states that

The digitally literate student is:

A Global Citizen

aware of issues in the world

safe and responsible

reflective

Information Literate

honours intellectual property

communicates effectively

thinks critically

Collaborative

respectful

a contributor

manages time

Data Literate, in that they

collect and organize data

analyse information critically

create clear, informative data graphics

Digital Expressive, using the

visual arts

narrative arts

audio arts. (p. 8)

The digitally literate student is a global citizen, information literate, collaborative, data

literate, and digitally expressive. Other definitions of digital literacy support the North

Vancouver School District's definition. For example, Wikipedia defines digital literacy

as

the ability to locate, organize, understand, evaluate, and create information using

digital technology. It involves a working knowledge of current high-technology,

and an understanding of how it can be used. Digitally literate people can

communicate and work more efficiently, especially with those who possess the

same knowledge and skills. ("Digital Literacy," 2009, "Definition," ¶ 1)

Global Citizen

A global citizen can be described as one who has an awareness of world issues, displays safe and responsible behaviour with technology and demonstrates the skill of reflection in their learning and work. The following authors define literacies that can be integrated into the skills of a global citizen with respect to working towards digital literacy.

Burniske's (2008) term civil literacy is defined as "the ability to read, interpret, and respect the moral and ethical beliefs embraced by a particular social group and apply them in a responsible manner" (p. 19). For example, Burniske (2008) discusses the need for educators to provide students with opportunities to practice and apply "netiquette", which can be described as the etiquette in the digital environment. Netiquette may include, for example, the understanding and practice of remaining on-topic in chat rooms, blogs and other public forums or attaching a personal signature or mark that identifies the author. Burniske (2008) also emphasizes the rights and responsibilities of using digital environments and encourages educators to direct their students in these areas. Educators can encourage students to understand that they have the right to access digital environments but they must respect the boundaries of their media when doing so.

Another term that can be integrated into the skill set of being a global citizen is Merchant's (2007) critical digital literacy. Merchant (2007) defines critical digital literacy as "the power, responsibilities and ethical considerations that come into play in communicative settings" and deems this to be an "important ingredient of a good literacy education" (p. 125). Demonstrating responsibility in a digital environment could include respecting intellectual property and privacy, citing sources, displaying personal safety,

and adding content to public forums with discernment. Students entering the digital domain should be equipped with these skills as well as an understanding of their importance. Through the instruction of these digital literacy skills, teacher librarians can promote global citizenship in a global digital age.

Information Literate

Information literacy is the ability to use information from various sources in a proficient and effective manner to promote learning. In the document, *Achieving Information Literacy*, Asselin, Branch, and Oberg (2003) outline an information literate citizen as one who,

> works independently and collaboratively to solve problems, analyzes information critically in all its forms and in all media contexts, applies information strategically to solve personal and social problems, makes decisions based on accurate and current information, uses information and communication technologies, respects information sources and diverse perspectives, honours intellectual property and privacy rights, appreciates the aesthetic qualities of various creative and scientific expressions, [and] communicates effectively and expressively using a variety of information and media formats. (p. 5)

When information literacy abilities are demonstrated in the digital environment, students contribute to their learning in skillful ways.

Collaborative

The ability to collaborate in the digital age includes being respectful, being a contributor and being a manager of time. Working, learning and socializing effectively with others in a digital environment requires these skills. Burniske (2008) does not use

the term collaborative but discusses the need for community literacy. Community literacy is defined as "the ability to engage with 'the other' developing mutually beneficial relationships through collaborative endeavors intended to transform an indifferent society into a supportive community" (Burniske, 2008, p. 79). In the digital environment, a community can be built when its members possess collaborative skills.

Collaborative skills can be further understood through the discussion of interpersonal skills. Nelson (2008) identifies interpersonal skills as a necessity and describes how "students call upon their interpersonal intelligence as they communicate and actually get to know others from around the nation and even the world" (p. 68) while using technology. The inclination to socialize using digital technologies supports collaborative work and learning. Students would benefit from explicit instruction that focuses on collaborative skills. Instruction that develops time management, respect, and also encourages positive contributions in digital environments would promote digital literacy through collaboration.

Data Literate

Data Literacy is another consideration within the framework of digital literacy. This literacy includes the abilities to collect and organize data, analyse information critically and create clear and informative data graphics.

While using digital technologies to collect and organize data, one should be able to select a tool that best suits their goals for information seeking or communicating. Burniske (2008) discusses this ability as being media literate. Media literacy is defined as, "the ability to read and understand a communications medium by looking through the

process it enables, interpreting its signs and symbols, while looking at the medium's effect on an author, audience, and message" (Burniske, 2008, p. 11).

The ability to analyse information critically in a digital environment requires evaluation skills. Burniske (2008) outlines evaluative literacy as, "the ability to distinguish excellence from mediocrity as it applies to both the process and product of one's labor" (p. 109). Not only should students be able to select quality digital sources but they should also be able to evaluate their work to determine if it is of sufficient quality for the digital environment.

The skill of self evaluation aids the data literate skill of creating clear and informative data graphics. Pletka (2007) discusses the ability to create clear and informative data graphics as visual literacy. Visual literacy is defined as the "ability to interpret, use, appreciate, and create images and video using conventional 21st century media in order to learn, make decisions, and communicate" (Pletka, 2007, p. 47).

The three skills required to be data literate, like all digital literacy skills, can be utilized in other areas of teaching and learning. One who can collect and organize data and analyse information critically in a digital environment can apply these skills in other environments. The same can be said for the ability to create clear and informative data graphics using digital technologies. Teacher librarians can integrate these skills into their teaching goals to assist students in developing them for use in a variety of environments.

Digitally Expressive

The ability to use the visual arts, narrative arts and audio arts for self expression using digital technologies are key components of being digitally literate. Reflecting and understanding who one is, is a necessary first step to being digitally expressive. The term

personal literacy describes this ability. Burniske (2008) defines personal literacy as "the ability to undergo a personal initiation to the self, recognize how others read and perceive that self through social interactions, and understand the forces that shape an individual's identity" (p. 61). Being digitally expressive allows one to represent and communicate who they are as well as understand others through the visual, narrative and audio arts. Clear expression and communication is the goal of digital expression. Teacher librarians can assume a roll in their students' development by having an understanding of the skill set required to be literate in the digital age.

Understanding the Role of Teacher Librarians in Digital Literacy

Teacher librarians can play a significant role in developing digital literacy skills by integrating digital technologies into student learning, through explicit instruction and by allowing students to explore and express themselves through digital technologies. Incorporating the digital environment into learning will provide the students of the Net Generation with authentic and meaningful experiences.

Teacher librarians need to view their role in the teaching/learning process as one that works alongside students in a consulting role rather than a direct teaching role. Warlick's (2005) advice to teacher-librarians is to

> stop thinking of yourself as a teacher, and start seeing yourself as a learning consultant. Your job is to help your students learn and develop skills. Sometimes this involves delivering the knowledge to them, but often they should be learning within experiences that you have crafted for them, where they are finding their own information raw materials, processing the materials into their own knowledge and building an information product from their knowledge. (p.291)

A shift in teaching will require not only a change in the way teacher librarians view their role but also in how they approach teaching curriculum. A more proactive approach by teacher librarians would be to integrate digital technologies into school library programming. Nelson (2008) suggests that, "instead of just covering material, teachers need to provide lessons that allow students to 'uncover' the material – to directly experience the inquiries, arguments, and applications of the subject" (p. 108). Pletka (2007) further adds that,

> because the Net Generation has been shaped by an environment that is information and communication rich, team-based, achievement-orientated, visually based, and instantly responsive, they often recoil from isolated, lectured-based, information-dated, responsive-deficient silos of learning comprised of outdated technologies from the mid-20th century. (p.13)

The "silos of learning", remnants from the mid-20th century educational model, no longer meet the needs of the Net Generation learners. In order for students to become successful in their pursuit of digital literacy, teachers must provide explicit instruction in the digital technologies and skills students are using. To be clear, this must go beyond word processing, emailing and finding information on the Internet. "When people are introduced to computers today, they are typically taught how to look up information on the Web, how to use a word processor, how to send e-mail. But they don't become fluent with the technology" (Resnick, n.d., p. 2). In this digital age, it is crucial to move beyond the use of technology for information seeking and into using technology as a collaborative, content developing, information sharing and communication tool. To use technology to this potential will require digital literacy skills. Students need instruction

and opportunities to practice being global citizens, information literate, collaborative, data literate and digitally expressive when using digital technologies.

Teacher librarians have a unique role in assisting students to develop digital literacy skills. Joyce Valenza (2008) describes the 21st century teacher librarian as one who explores downloadable audio books, creates digital book talks and book trailers in digital format with students, uses websites such as Shelfari and Library Thing to promote books, ensures staff and students have access to and the skills to explore databases, websites, portals, websites, blogs, wikis and other digital tools that promote curriculum initiatives, move beyond PowerPoint, continue to learn and embrace 21st century digital environments and other such endeavors. After examining the Net Generation and defining more clearly what digital literacy is, it is important to discuss practical ways in which teacher-librarians can promote digital literacy through the elementary school library program.

Implications for Teacher Librarians

Goals for Promoting Digital Literacy

As a teacher librarian who aims to meet the literacy needs of the Net Generation, I have three goals in assisting them in developing digital literacy skills. My first goal is to provide authentic learning opportunities for digital literacy skills while drawing on the students' own strengths and interests. Secondly, I aim to build a digitally literate community that collaborates and supports each other in using digital technologies. This community is to include the students of the school, teachers, administrators, parents and

others who are involved in student learning. The third goal is to ignite a desire for lifelong learning of digital technologies. I believe these goals can be met while reaching other literacy goals in the school library program.

Developing Digitally Literate Students

Within my elementary school library program I have the opportunity to work with students in scheduled library blocks, through collaborative teaching and during special projects organized through the library. Each week I teach Kindergarten through grade 4 classes in a library class. I also have three hours of collaborative work time available in my schedule and I initiate special projects throughout the year such as enrichment research groups, literacy weeks and other days focusing on various aspects of literacy. Teacher librarians with similar library schedules would have opportunities to continue with regular library program goals while still integrating digital literacy skills.

For example, while working on a collaborative unit with the grade 5 classes on mapping, the teacher librarian could integrate the use of Google Earth to locate map features and hone the digital literacy skill of being data literate. Students will collect, organize, and analyse information found on Google Earth and learn to think critically about its content, accuracy and authenticity. To further this goal, students can display their learning by creating a map of their own using digital cameras, photosharing websites and multimedia programs that allow photo manipulation. This would require multiple lessons that include student collaborative learning, supported practice and the need to occasionally teach particular skills. The result would be an authentic learning experience where students developed their mapping skills to meet curriculum goals while

learning and practicing digital literacy skills that can be transferred into other learning and life experiences.

Teacher librarians can also incorporate their school library program goals with digital literacy skills by using a blog for new book promotion. An easily navigated blog would provide students with an engaging visual introduction of the new books the library has to offer. This blog can effectively promote recreational reading as well as supporting curriculum learning and yet can take relatively little time to create or maintain. Teacher librarians can introduce the blog to both teachers and students who can post comments on the blog to offer feedback on the new books. Other members of the school community can then enjoy these reviews and be motivated to read the new books for their own learning or recreational reading. Students may also be inspired to create their own blogs to document their own favourite book recommendations. The nature of a blog will encourage and develop the skills of a collaborator who is respectful, a contributor and one who can manage time through using tools to increase efficiency.

By integrating digital literacy skills, teacher librarians can achieve their library programming goals and also mimic the ways in which the Net Generation uses digital technologies in their daily life. This will also provide the Net Generation with authentic experiences using digital technologies while assisting them in developing their digital literacy skills and incorporating both into their learning.

Building a Digitally Literate Community

Reaching students through school library programming is a key approach in developing a digitally literate community. However, efforts also need to be made in

supporting teachers, administrators, other staff members, and parents in developing their skills so that students are supported in their learning.

The administrator of the school has a strong influence on any endeavor involving change within the school and deserves special consideration. The extent to which an administrator values technology and its role in education will determine how creative you will need to be to meet your goals. In my experience, there are few administrators in this digital age who do not value technology and will not support its progress. It is likely you will find support from your administrator in the form of funding, release time and their knowledge and experience in this area. The school administrator can be an integral part of your digitally literate community when involved as an active partner in the library programming or by helping to promote your goals with staff and other school community members.

Determining which members of your community to involve is also important in achieving this goal. During the process of developing a digitally literate community, there will be those who jump right onto the bandwagon and others who are critical or even object to the work being done. Working with those who are interested and onboard to develop the foundation of the community will not only encourage success but will also keep the environment positive and enjoyable for all community members. It is likely that the community will grow as those who participate share their experiences with others and encourage them to join the learning.

When building a community it is important to keep in mind that all members should be valued and given the opportunity to contribute their own strengths and skills. In a digitally literate community based in a school, students should be valued as partners

in learning, and not viewed as not inferior members. Our Net Generation students should be given opportunities to share their knowledge as mentors and instructors where appropriate. The contribution of all members of the learning community will fuel progress towards this common goal.

Time is also a consideration in the building of a digitally literate community. Not every initiative can be supported within school hours and it may be necessary to provide after school programming that can include parents, teachers and other members of the community. This may take the shape of after school workshops dedicated to a variety of topics and audiences or simply being available to support community members in their learning and interests with digital technologies available at the school. For example, having an "open lab" once a week where you offer access to the computer lab and other digital technologies where community members can come and play, build, experiment and practice their digital literacy skills. This could also take the shape of hosting an informational seminar for parents who are looking to understand the ways in which their Net Generation child uses the Internet and how to encourage safe use of this digital technology.

Working From What You Have: Breaking Down Barriers

The goals of a teacher librarian working to develop digital literacy through the elementary school library program will look differently in each situation depending on the limiting circumstances. I would like to suggest that there are no barriers to this goal but rather challenges that can be used to enable the learning of digital literacy skills. If your school does not have the digital technologies necessary to learn these skills, use it as an opportunity to build your community of learners through fundraising, advocating and

building a supply of technology. If you as the teacher librarian do not feel you have the education or experience with digital technologies to lead such an initiative, consider learning from the members of the community that do – your students! Offer the organization and teaching skills you do possess to enhance the development of your digital literacy skills while giving other community members opportunities to learn alongside you. If you lack time, focus on learning and integrating the digital technologies that make your work more efficient. A variety of digital technologies including a wiki, a blog, a VoiceThread, on Facebook or on Twitter will lend themselves to be the online meeting place where the community members can support each without depending completely on your leadership. Whatever the barrier, it can be overcome by viewing it as an opportunity to grow as a community and learn digital literacy skills.

Fostering Lifelong Learning

To reach the goal of fostering lifelong learning, it is essential that all members of the community at some point be able to lead and be led. These experiences will strengthen the way the community members work together and promote learning relationships that can move beyond the confines of the community. This step will provide opportunities for the learners to use their skills beyond the community. For example, if a student has learned from a series of library classes to effectively use VoiceThreads to display their learning in the school setting and is also given the opportunity to teach this skill to a group of parents in an after school workshop, the student will have the confidence to use VoiceThreads in areas of their life beyond school. Applying the skills and digital technologies beyond the school setting and community of learners is a step toward developing lifelong learning behaviour.

One way the teacher librarian can promote lifelong learning behaviour is through modeling this behaviour themselves. This is authentically done throughout their teaching, side-by-side learning, and in the development of the digitally literate community. If the teacher librarian is not deeply committed to lifelong learning, it will be extremely difficult for them to actualize digital literacy goals in through the school library program.

Along with modeling the behaviours they wish to develop, the teacher librarian can provide opportunities for students and other community members to continue their learning. Specifically this support can come through providing sources for networking and learning. This can be done through the development of a website, blog, wiki or chat room that informs community members of additional sources they can access for further learning. Community members can also participate in providing information to each other through the digital medium chosen. For example, a wiki can be set up where community members can all contribute to a variety of pages regarding new technologies they discover, chat rooms they participate in for learning and ideas, websites that provide new information and other such topics.

The potential for lifelong learning in the area of digital technologies is essential as digital technologies change daily as do the ways in which to use them. If teacher librarians can develop ways to instill lifelong learning the progress and impact the Net Generation can have on the world can be dramatic.

Implications of a Digitally Literate Society

A secondary benefit of possessing digital literacy skills is that they can be applied beyond the realm of digital technologies. Not only will developing digital literacy skills

impact the way in which the Net Generation uses digital technologies, but it will also impact the way society is shaped by this group. For example, if the Net Generation evolves into discerning users of information using digital technologies, they could also become discerning decision makers. If they possess the skills to express themselves through digital technologies, they will also be able to express themselves in arenas such as politics, government and religion, strengthening our democracy and the very fabric of our society. This was illustrated in the recent political campaign of American President Barack Obama. Twenty-three year old Chris Hughes, Harvard roommate to the creator of Facebook, was hired for as Obama's director of online organizing for the campaign (Tapscott, 2009). Using digital technologies, Hughes's work "gave individuals in the community the digital tools to organize themselves, share information, and create rallies and fund-raisers for the candidate" (Tapscott, 2009, p. 244). These avenues of campaigning created a community of invested voters that turned out in record numbers to cast their ballot for the presidential election in 2008 (Tapscott, 2009). This is only one of many similar examples that can be given of how the Net Generation communicates through digital technologies to influence and change society.

A Canadian example is the development of the anti-bullying campaign called the Day of Pink. In 2007 in Cambridge, Nova Scotia, a story broke in the media about a grade 9 boy who had been bullied for wearing a pink polo shirt on the first day of school (Canadian Broadcasting Corporation, 2007). When two grade 12 students heard about the incident they decided to organize a peaceful response. Through the use of digital technologies students spread the word to wear pink to school the next day. This statement against bullying was effective at Central Kings Rural High School and spurred

the development of the anti-bullying Day of Pink annually held on February 19th

(Canadian Broadcasting Corporation 2007; Jer's Vision, 2009). The use of digital

technologies not only actualized the plan of the students from Central Kings Rural High

School but also assisted in the development of an annual national statement against

bullying.

Conclusion

It is the role of the teacher librarian to assist students in learning digital literacy

skills through the elementary school library program. This can be accomplished through

the development a digitally literate community and by fostering the lifelong learning of

digital literacy skills and technologies. When a teacher librarian understands the unique

needs and interests of the Net Generation, they are better equipped to facilitate the

learning of this group. Teacher librarians should also understand the digital literacy skills

necessary to be efficient and effective users of the technologies of our digital age.

Through carefully planned school library programming, teacher librarians can promote

the goals outlined in this paper. With these goals and action to achieve them, the work of

a teacher librarian can create lifelong digitally literate learners that will shape the society

of today, tomorrow and the future.

References

Asselin, M., Branch, J.L., & Oberg, D. (2003). *Achieving information literacy: Standards for school library programs in Canada*. Ottawa, ON: Canadian School Library Association and the Association for Teacher-Librarianship in Canada.

Asselin, M., & Doiron, R. (2008). Towards a Transformative Pedagogy for School Libraries 2.0. *School Libraries Worldwide, 14*(2), 1-18.

Aviram, A. (2006). *Towards a theory of digital literacy: Three scenarios for the next steps*. Retrieved October 1, 2008, from http://www.eurodl.org/materials/contrib/2006/Aharon_Aviram.htm

Burniske, R. (2008). *Literacy in the digital age*. Thousand Oaks, CA: Corwin Press.

Canadian Broadcasting Corporation News. (2007). *Bullied Student tickled pink by Schoolmate's T-shirt campaign*. Retrieved March 14, 2009, from http://www.cbc.ca/canada/story/2007/09/18/pink-tshirts-students.html

Canadian Library Association. (1997). *Students' information literacy needs in the 21st century: Competencies for Teacher-Librarians*. Retrieved September 22, 2008, from http://www.cla.ca/Content/NavigationMenu/CLAatWork/Divisions/CASL/Business/Publications/Students_Information.htm

Chung-Wilson, M. (1998). To dissect a frog or design an elephant: Teaching digital information literacy through the library gateway. *INSPEL, 32*(3), 189-195.

Combes, B. (2008). The Net Generation: Tech-savvy or lost in virtual space? *International Association of School Librarianship. Selected Papers from the ... Annual Conference,*1-17. Retrieved October 13, 2008, from ProQuest Education Journals database. (Document ID: 1561027341).

Digital Literacy. (2009, February 16). In *Wikipedia, the free encyclopedia*. Retrieved February 16, 2009, from http://en.wikipedia.org/wiki/Digital_literacy

Dresang, E.T., Gross, M., & Holt, L. (2007). New perspectives: An analysis of gender, net-generation children, and computers. *Library Trends, 56*(2), 360-386. Retrieved July 25, 2008, from ProQuest Education Journals database. (Document ID: 1452545091).

Ertl, H., & Plante, J. (2004). *Connectivity and learning in Canada's schools*. Ottawa, ON: Statistics Canada. Retrieved July 22, 2008, from http:www.statcan.ca/English/research/56F0004MIE/56F20004011.pdf

Eshet, Y. (n.d.). *Digital Literacy: A new terminology framework and its application to the design of meaningful technology-based learning environments*. Tel Hai, Israel: Tel Hai Academic College. Retrieved September 30, 2008, from http://74.125.95.104/search?q=cache:5F2FR5TedqwJ:infosoc.haifa.ac.il/DigitalLiteracyEshet.doc+yoram+eshet+digital+literacy&hl=en&ct=clnk&cd=9&gl=ca&client=firefox-a

Eshet-Alkalai, Y. (2004). Digital literacy: A conceptual framework for survival skills in the digital era. *Journal of Educational Multimedia and Hypermedia, 13*(1), 93-106.

Eshet-Alkalai, Y., & Amichai-Hamburger, Y. (2004). Experiments in Digital Literacy. *CyberPsychology & Behaviour, 7*(4), 421-429.

Geck, C. (2006). The generation Z connection: Teaching information to the newest Net Generation. *Teacher Librarian, 33*(3), 19-23.

Jer's Vision. (2009). *Day of Pink*. Retrieved March 14, 2009, from http://www.dayofpink.org/

Levin, D., & Arafeh, S. (2002). *The digital disconnect: The widening gap between Internet savvy students and their schools*. Retrieved October 4, 2008, from http://www.pewinternet.org/pdfs/PIP_Schools_Internet_Report.pdf

Nelson, K. (2008). *Teaching in the digital age*. Thousand Oaks, CA: Corwin Press.

North Vancouver School District. (2007). *Digital Expression*. North Vancouver, BC: North Vancouver School District.

November, A. (2008). *Web literacy for Educators*. Thousand Oaks, CA: Corwin Press.

Merchant, G. (2007). Writing the future in the digital age. *Literacy, 41*(3), 118-128.

Pletka, B. (2007). *Educating the Net Generation*. Santa Monica, CA: Santa Monica Press.

Qatra Academy. (2008). *123 elearning: Digital literacy and elearning*. Retrieved September 30, 2008, from http://123elearning.wikispaces.com/Digital+Literacy#toc1

Resnick, M. (n.d.) *Rethinking learning in the digital age*. Retrieved September 25, 2008, from http://llk.media.mit.edu/papers/mres-wef.pdf

Richardson, W. (2009). *Blogs, wikis, podcasts, and other powerful web tools for classrooms*. Thousand Oaks, CA: Corwin Press.

Rutenbeck, J. (2000). The 5 great challenges of the digital age. *Library Journal: Net Connect, 30*(33). Retrieved October 1, 2008, from ProQuest Education Journals database. (Document ID: 62842836).

Seimens, G. (2008). *Connectivism: A Theory for the Learning Age*. Retrieved October 2, 2008, from http://www.elearnspace.org/Articles/connectivism.htm

Tapscott, D. (2009). *Grown up digital*. New York, NY: McGraw-Hill.

Valenza, J., & Rodoff, K. (2008). *Information fluency*. Retrieved October 1, 2008, from http://informationfluency.wikispaces.com/

Warlick, D. (2005). *Raw materials for the mind: A teacher's guide to digital literacy*. Raleigh, NC: The Landmark Project.

Waterhouse, S. (2005). *The power of elearning: The essential guide for teaching in the digital age*. Boston, MA: Pearson Education.

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Capping Course Instructor

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