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Multicultural and Multilingual Youth Projects from Turkmenistan: Developing 21st Century Skills through Global Connections and Teaching Beyond Borders

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Abstract:

This presentation is for teacher educators and K12 teachers who would like to integrate global education, 21st Century skills and new media in education, this paper outlines my experiences as a Fulbright Scholar teaching multicultural education, media literacy and educational technology in Ashgabat, Turkmenistan; offers creative strategies for producing media with youth; and showcases their projects and digital stories from Central Asia.

The research participants deconstructed and assessed the national and local curriculum and standards; presented their curriculum projects such as video documentaries reflecting not only on their stories but also international issues and perspectives through their online contact to global community and documented their stories in order to articulate the realities of conditions in schools through their research, analysis, and dialog. Through the discovery process, the participants explored, designed, and created the strategies, curricula, and programs for improving student outcomes, also the candidates gained alternative point of view on their subject fields and renewed interest and commitment to socially responsible teaching.

Background:

This paper outlines my experiences as a Fulbright Scholar working in Turkmenistan, developing creative strategies and 21st Century Skills among youth with limited resources and equipment, using Global Positioning System (GPS) and Social Interaction Software (SIS) to promote global collaboration. I tried to document workshop participants' discoveries, experiences, and challenges of integrating new media in the classroom and most of their projects and digital stories were shared using Web 2.0 tools. The study explored wide range of meanings workshop participants associated with new media; impact of GPS and SIS in education; and ways in which participants integrated history, culture, and media in their projects. It is designed for educators who would like to integrate global education and 21st Century skills in the curriculum.

My original assignment was to teach and conduct research in an academic setting and looking forward to collaborating with Turkmen colleagues on new media and technology issues. After waiting an official assignment over a month, I realized it was not possible for a foreigner to get such permit. Instead, I found myself organizing workshops, out of school activities for Turkmen students and teachers. Most workshops I developed related to new media were difficulty to deliver due to limited technology and Internet. During one of my workshops, I was inspired by my students who were practicing my digital camera and GPS (global positioning system). I barely knew how to use a GPS device.[1] I decided to learn more about the GPS and developed a workshop series called "Maps, Math and Media Introduction Global Positioning System and

[1] GPS device I used is at https://buy.garmin.com/shop/shop.do?pID=310

Interactive Map Making." First, I organized *geocaching* activity. My students came up with an idea to create a map of the capital city of Ashgabat, bus routes and historical sites. I was warned not to use the GPS device in public, it may be confiscated and I may find myself in trouble with authorities. Instead, I was invited to present for many conferences to showcase my GPS device, for instance, I presented at Disaster Management Institute, which was working on developing a map for earthquake fault lines in Turkmenistan. With one shared GPS device, my students and many volunteered community members started an ongoing project. Even business people who attended my presentations were inspired to use GPS to collect data on sales and locations. I was on national TV many times and interviewed by many journalists, lastly I had a chance to showcase my students' GPS work to the government officials, minister of education, university faculty and administrations in UNESCO ICT in Education conference.

Objectives

The study explored wide range of meanings associated with Global Positioning System (GPS) and Social Interaction Software (SIS); impact of geocaching, and digital video in the curriculum; and ways in which integrating new media and technologies into education.

The purpose of this study was to meaningfully integrate geography and social networking sites into "Maps, Math, and Media" workshop as a means of further developing their 21st century skills and to develop creative strategies and possibilities of teaching new literacies with limited resources and equipment. Our goal was to: a) To present the role of new technologies in order to argue the challenges and advantages of Global Positioning System (GPS) and Social Interaction Software (SIS) in K-16 curriculum across content area s (i.e. math, geography, cultural studies); b) To introduce maps and media across content areas in developing multiple literacies (i.e information, technology, geography, media literacy): c) to demonstrate creative strategies and possibilities for engaging K-16 students in meaningful literacy activities while incorporating maps and media.

Perspective(s)

The use of social software is exploding especially among the younger generation not only in the US but around the world. More than half (55%) of all online American youths ages 12-17 use online social networking sites, according to a new national survey of teenagers conducted by the Pew Internet & American Life Project. Pew International reported (2007): "the use of social media – from blogging to online social networking to creation of all kinds of digital material is central to many teenagers' lives." According to this report, Web-savvy teen content creation continues to grow, with 64% of online teenagers ages 12 to 17 engaging in at least one type of content creation, up from 57% of online teens in 2004. They use land line telephones (39%), cell phones (35%), face-to-face meetings (31%), and instant messages (28%) or text messages (27%). They use social networking tools to send messages (21%) and email (14%).

According to Jenkins (2006), whether we embrace it or not, participatory culture is emerging through an explosion of new media technologies. Social software allows us to archive, annotate, appropriate, and recirculate media content. Our goal is not to take away these tools but, Jenkins (2006) suggests, "…to encourage youth to [use them to] develop the skills, knowledge, ethical frameworks, and self-confidence needed to be full participants in contemporary culture." (p.8) He continues: "Many young people are already part of this participatory process through: *affiliations* (informal and formal memberships built around various forms of media, which include social networking sites, such as facebook, myspace, voicethread), *expressions* (producing creative expression, such as mugglenet fan fiction, youtube, videojug, toondoo, sketchcast, gaia),

collaborative problem-solving (working in teams to complete tasks and contribute to a knowledge base using a wiki or secondlife), and *circulations* (changing the distribution and circulation of media through tools like blogging and podcasting, such as digg)." (p. 8)

Owen and et al (2006) use the phrase *boundary crossing.* They continue: "Students can be members of online learning communities that contain other ages, cultures and expertise. They have the opportunity to move beyond their geographic or social community and enter other communities, with the obvious implication that others can move into theirs. Communities can be strengthened where there are weak boundaries because they let newcomers in." (p.37) For example, Web projects such as 6 million others by Yann Arthus-Bertrand not only bring testimonials on various issues from different cultures and backgrounds but also invite the world community in translating these stories in many languages. Arthus-Bertrand's website [http://www.6milliardsdautres.org/] presents us the importance of new communication tools and its power for building communities and crossing boundaries.

On the other hand, just like the invention and use of writing and the printing press in the past, there are growing concerns about the invention and use of social software in education. Eco (1996) explains in his speech that each invention in human history generated suspicion and resistance and "humans have an eternal fear: the fear that a new technological achievement could abolish or destroy something that we consider precious, fruitful, something that represents for us a value in itself, and a deeply spiritual one." (p.1)

Research documents how Global Positioning System (GPS) and Social Interaction Software (SIS) can be used to support traditional literacy practices as well as facilitate the further development of multiple and critical literacies. According to Jenkins, Purushotma, Clinton, Weigel, and Robinson (2006), "The new literacies almost all involve social skills developed through collaboration and networking. These skills build on the foundation of traditional literacy, research skills, technical skills, and critical analysis skills taught in the classroom. (p. 4)" National Standards such as International Society for Technology in Education (ISTE) and International Reading Association (IRA) advocates the use a wide range of instructional tools, and curriculum materials to support instruction and promotes access for students to a new media and technologies in classrooms and libraries.

The Partnership for 21st Century Skills (2007) suggests that teaching and learning in the 21st century requires that students and teachers have: subject specific knowledge, learning skills, use 21st century tools to foster learning, teach and learn in the 21st century context, connect learning to the real world, and use assessments that measure 21st century learning. Therefore, in this workshop, my twelve students and I got familiar with GPS and SIS technology to better prepare ourselves for the literacy demands we encounter as global citizens in the 21st century.

In addition to The Partnership for 21st Century Skills, Burkhardt and et al (2003) at The North Central Regional Educational Laboratory (NCREL) prepared the "enGauge" publication which cross-lists 21st century skills that will be increasingly important to students entering the work force. It consists of five main sections: (1) "Digital-Age Literacy"- discusses basic, scientific and technological literacies; visual and information literacies; and cultural literacy and global awareness; (2) "Inventive Thinking" - focuses on adaptability/ability to manage complexity; curiosity, creativity, and risk-taking; and higher-order thinking and sound reasoning; (3) "Effective Communication" - deals with teaming, collaboration, and interpersonal skills; personal and social responsibility; and interactive communication; (4) "High Productivity" - discusses the ability to prioritize, plan, and manage for results; effective use of real-world tools; and relevant, high-quality products; (5) "Information Technology" - identifies possible social effects as regards information technology.

With the advent of new handheld devices such as GPS and social interaction software, there will be an expanded access to alternative resources and global connections. Teaching and learning

have potential to be a continuous life-long process; it is personalized, learner-centered, situated, collaborative, and ubiquitous. Suter, Alexander, and Kaplan (2005) summarized the notion of social interaction software "as a tool (for augmenting human social and collaborative abilities), as a medium (for facilitating social connection and information interchange), and as an ecology (for enabling a 'system of people, practices, values, and technologies in a particular local environment')." (p.48)
Growing number of initiatives and projects directed for K16 education such as Oercommons.org[2] was shared during the Maps, Math and Media workshops not only to seek out for teaching and learning content around the world but also to share and showcase our multimedia projects, and collaborate others using Web 2.0 features. Mejias (2006) wrote in response to his teaching and using social interaction software in his classrooms: "Social interaction software allows students to participate in distributed research communities that extend spatially beyond their classroom and school, beyond a particular class session or term, and technologically beyond the tools and resources that the school makes available to the students."

As we move towards a highly connected world, our well being, resources, economies are tied to each other. The New London Group (2000) states: "If it were possible to define generally the mission of education, it could be said that its fundamental purpose is to ensure that all students benefit from learning in ways that allow them to participate fully in public, community, [creative] and economic life." (p.9) The International Society for Technology in Education (2007) and the National Education Technology Standards (NETS) adds digital citizenship for students in addition to critical thinking, informed decision-making, and real-world problem solving through technology, literacies, and skills.

We see common thread and focus among the educational research institutions and projects. Education standards and curriculum has been re-designed for the students who are living in a world that is changing rapidly. The tools for working in that world need to be accessible and usable by anyone, regardless of individual resources, capabilities and abilities.

Richardson (2006) writes: "In essence, that's still what I found so powerful about weblogs today, more than four years later. Writing to the Web is easy. And there is an audience for my ideas. Those two concepts are at the core of why I think weblogs have such huge potential in educational settings." (p.17) He talks about the power of social interaction software which allows students to interact with audiences rather than 'hand in' homework to an audience of one. He argues the importance of building networks far beyond the classroom walls, forming *learning* communities around the students' interests. He adds "It's not hard to understand why rows of desks and time-constrained schedules and standardized tests are feeling more and more limiting and ineffective." (p.17)

Open Learning Initiative from Carnegie Mellon and Open Courseware at Massachusetts Institute of Technology (MIT) are some of the open learning projects that are focused more on higher education. There are also repositories such as Merlot.org which is a user-centered, searchable collection of peer reviewed online learning materials, catalogued by registered members to develop an online community where educators from around the world share their projects.

Freire's (2002) notion of "dialogue" in education insists on breaking the "contradiction" of the teacher-student relationship (p. 72). He was critical of "banking education," wherein learners are asked to file and silently absorb the deposits that they are imparted from the oppressor. Srinivasan (2006) adds, "Liberating education consists in acts of cognition, not transferals of information." (p.256) Today, various tools (such as, instant messaging, webcams, and digital voice recorders)

[2] Oercommons.org - is an open learning network to create an online experience that engages educators in sharing their best teaching and learning practices. It offers P-16 educators access to course materials, provides platform to share and learn.

bring multicultural voices into the classroom and liberates teachers and students from a textbook format. Curriculum can be redesigned based on the needs and aspirations of the students. Kahn & Kellner (2007) argues that critical pedagogy itself can reconstruct the current terrain in education as it works to overcome inequalities through the appropriate use of technology and the establishment of critical consciousness on the issues surrounding technology and society.

Social interaction software provides profound changes in open educational settings that are based on a social re-constructivist paradigm of learning and promote a creative and collaborative engagement of learners with digital media content, tools, and services in education. Brundrett and Silcock (2002) wrote, "Many have argued for a "social reconstructivist" education (Brehony, 1992, Dewey, 1916, Engelund, 2000 and Jones, 1983), not especially because they see reconstructivist teaching as virtuous in itself, but because they think it is the route to a more egalitarian society" (p. 69).

Social interaction software is ideal for distributed learning. Mejias (2006) wrote in response to his teaching and using social interaction software in his classrooms: "Social interaction software allows students to participate in distributed research communities that extend spatially beyond their classroom and school, beyond a particular class session or term, and technologically beyond the tools and resources that the school makes available to the students."

Social interaction software allows greater student independence and critical autonomy (Masterman, 1985, p 24-25), greater collaboration, and increased pedagogic efficiency (Franklin & Van Harmelen, 2007). It also provides learners with an effective method of acquiring the 21st century skills. Tucker (2007) cites Bugeja's "digital displacement" phenomena: "though family members may be sharing the same physical space, psychologically each one may be in his or her own little universe, making difficult for parents to penetrate the child's universe, and impairing communication." (p.3) Bugeja (2008) warns of digital distractions and outlines significant issues to consider in implementing changes in education. He writes: "Due to academia's reliance on technology and the media's overemphasis on trivia, we are failing to inform future generations about social problems that require critical thinking and interpersonal intelligence." (p.66)

As corporate entities create pressure from the outside, coming up with new technologies on a minute by minute basis, Noon (2007) questions what it means to be a media literate "global citizen" and questions the role of schools in preparing students for the work force. Gould (2003) argues we tend to promote the need for a productive citizenry rather than a critical, socially responsive, reflective individual." (p. 197)

Jenkins et al. (2006) highlighted some of the additional core concerns and challenges integrating new media into the classroom settings: (1) participation gap - opportunities and inequalities in accessing new media technologies; (2) transparency problem - children need to be actively guided in reflecting on their media experience; (3) ethics challenge - children need help developing the ethical norms to cope with online environments. To address these challenges, educators, parents, and community need to work together, rethink which core skills and competencies the younger generation need in their education, and redesign a curriculum to prepare them for the future.

Reingold (2008) who is the founder of Social Media Classroom (SMS) argues the importance of teaching literacies instead of worrying about keeping up with the new technologies. Based on his teaching experience, he claims, "Just because they're [digital natives] on Facebook and chat online during class and can send text messages with one hand does not mean that young people are acquainted with the rhetoric of blogging, understand the way wikis can be used collaboratively, or know the techniques necessary for vetting the validity of information discovered online." (p.1)

Despite all the concerns and challenges integrating social interaction technologies into the curriculum, there is a growing number of research and support by academics. For instance, Digital Youth Research [http://digitalyouth.ischool.berkeley.edu/] is a collaborative project that studies number of empirical and theoretical work on youth subcultures, new media, and popular culture. Wesch (2008a) argued the importance of welcoming social media into the classroom as powerful learning tools and wrote: "When students recognize their own importance in helping to shape the future of this increasingly global, interconnected society, the significance problem fades away." (p.7)

Methods

After the formal introduction to workshop and group activities, all participants explored a *Gallery Walk*[3] that was designed for exploring the goggle earth, role of and different types of maps. Gallery Walk for this project was a collection of artifacts (i.e. maps, pictures, posters, audio and video clips) designed to showcase the importance of geography across content areas. It also provided learning centers for each individual to interact and complete the tasks while interacting in group discussions and writing responses. There were different maps were available for participants to view and explore. The participants wrote their reactions next to these maps and discussed in the significance and possibilities for incorporating these maps and technology across curriculum areas.

The next project was designed to provide hands on experience with using GIS and SIS as well as to use new technologies to develop interactive maps and social interaction modules online using a five computer lab with internet connection. Participants engaged in Geocaching - high-tech treasure hunting game using GPS device. This outdoor experiential learning activity was called Hi5 (Hiking for Health, Happiness, Head, Hand and Heart) to Nature. After geocaching, they continued to explore GPS and SIS software such as googleearth.com and communitywalk.com, collecting data using GPS device on the bus routes and historical sites in the city of Ashgabat and created interactive maps and online projects of their own.

Data sources

This research is based on the qualitative study conducted on teaching interdisciplinary Math, Maps and Media workshop and investigated 12 (2 male and 10 female) workshop participants, ages between 12-29. There were over 20 community members (including teachers, business people, and taxi drivers) attending and contributing and supporting our GPS/SIS project. Each were from different backgrounds and educational levels.

Methodology included analysis of background and media surveys, video narratives, reflection papers, responses to online and experiential learning activities and online and multimedia projects.

Our investigation was guided by these questions:

1. What are the participants' personal experiences and reactions in GPS, SIS and geocaching and mapping and multimedia projects?
2. What skills, methods, strategies, and tools do we need to provide to our students to improve teaching and learning?

[3] Gallery Walk is based on Museum approach to teaching. http://serc.carleton.edu/introgeo/gallerywalk/index.html

3. How do we design and implement community based globally connected effective instruction models with limited resources and equipment and prepare them for the 21st century skills?
4. What common problems and discoveries do the participants share during the process of developing maps and using GPS and SIS?
5. What suggestions do participants make in order to improve teaching and learning?

Results

To date, few scholarly studies have investigated the power of GPS and SIS in global education. I have been in touch with them through facebook and skype under the leadership of two colleagues who co-presented with me recently on two international conferences as virtual presenters. They have been focusing on specific strategies utilizing Geographical Information System (GIS), the reading and writing of interactive maps to facilitate multiple literacies. They collected resources on Art in Geography, Cartography, Environmental Ethics, GPS/ GIS in Education.

Their projects such as communitywalk.com project and video narratives reflects not only on their experiences but also international issues and perspectives through their online contact to global community. Their stories articulate the realities of conditions in their schools through their research, analysis, and dialog.

They argued the challenges and advantages of integrating new media into Turkmen curriculum; developed 21st Century skills in researching and creating digital resources and media messages using ning, voicethread and community walk; examined the national curriculum and GPS/ SIS software in developing global understanding; experienced how a critical approach to the study of new media combines knowledge, reflection, and action to promote educational equity, and prepares new generation to be socially responsible members of a multicultural, global society.

One participant said, “We are happy to meet you. Thank you for proving a new eye glass to view the world.” Another wrote, “More than learning new technologies, I got a chance to reflect on my learning and enjoyed making maps using the technology.” They found the online activities and the resources engaging and helpful in understanding the role its unique characteristics.
The participants repeatedly said how much they feel connected by the social software, enjoyed being part of the world community. Why youth loves social networks sites is a question studied by boyd (2008). An 18 year old youth response to her mother is noteworthy. “If you’re not on MySpace, you don’t exist” boyd (2008) suggests “Perhaps instead of trying to stop them [youth] or regulate usage, we should learn from what teens are experiencing.” (p.138) Adults and educators need to be able to navigate and have a presence in their world. As one said, “I am at the center of the earth once I have the Internet connections.” By actively involving participants in producing media (i.e facebook, communitywalk, toondoo, wikis, blogs and digital stories), they understood the conventions of the medium and gained alternative points of view on their environment and renewed interest and commitment to community service. As they became the producers of their own media projects, they developed 21st Century skills, and became informed consumers and citizen of the world.

Significance

Today new generation use variety of mediums to communicate and form communities of interest outside “the classroom.” Soukup (2006) uses Oldenburg’s “Third Place” to explain the need for social interaction software in contemporary society, such as chat rooms and multiuser environments. Because of displacement of people from traditional communities and the

emergence of a consumption-oriented culture, Oldenburg (1999) believes that we long for disappearing public spaces because these 'great good places' or 'third places' provide unique functions within a local community. There is an obvious disconnect between current educational practices and what the students are exposed to in their daily lives. GPS and SIS are no longer the for the corporation and communication professionals. These software such as ning, google earth are successfully adopted by many, although their use in education is still in its infancy. (Hendron, 2008, p. 238)

GPS/SIS provides space for its participants to co-construct meaning using multilingual (Google Translator) and multimedia (slideshare) tools. Participants are bricoleur (Levi-Strauss, 1998) where they are the author as well as the cast, collector, and the director of their projects. Content of their knowledge is co-constructed by the participants.

This study discusses the impact and power of GPS and SIS and outlines its promising implications for global education, creativity and collaboration among its users. Social Interaction Technologies and Collaboration Software have been changing the way we experience our world. From showcasing digital portfolios (secondlife) to posting online reflections and journals (blogspot); co-writing books (wikibooks) to co-producing digital stories (voicethread); cocreating interactive maps (communitywalk) to collecting data (GPS) to solve community based issues, new technologies are increasingly being used for educational and lifelong learning environments as part of 21st century skill. The usage of social interaction software develops opportunities and supports "Open Learning" practices and processes, and promotes exchanges, connections, and collaboration among people who share common ideas and interests.

Future trends:

Social interaction software has tremendous potential for a transformational effect in education. There are a growing number of projects and initiatives, such as The School 2.0 eToolkit, that was developed by the U.S. Department of Education, SRI International Center for Technology in Learning (2007). *School 2.0* provides tools such as leadership resources, reflection tool, bandwidth panner, transformation toolkit in order to encourage the education community to develop a learning ecosystem and "to guide the school or district through the process of creating learning environments that are future-focused and which leverage technology to be both engaging and productive." The *School 2.0* eToolkit website provides Learning Ecosystem "map" which is considered a work in progress for educational institutions to explore and build on. The learning ecosystem map involves the combination of home, school, and community that collaborate to bring the world into classroom and outlines the possible educational and management scenarios "where teaching, learning, instruction and assessment take place and where school management, planning, staffing, and design come together to create the next generation of schooling" (p.1)

The educational system will continue to be challenged to encourage the development of the 21st century skills in relevant and meaningful ways. With the help of social interaction software, schools' websites become more interactive, accessible and multilingual. It encourages community to dialog with the educators in multiple ways and languages. It also helps develop school policies, such as Acceptable Use Policies (AUP), as a community.

Virtual multiuser environments such as secondlife are attracting many users because it allows the user to participate in interactive activities while learning, exploring and creating. This environment is dynamic and constantly co-created by its participants. Unsworth (2008) argues electronic media and video games change the way we interact with stories and new types of narratives will continue to be developed. (p. 63) These narratives will acquire and develop new skills and literacies.

Note:

In addition to participants' narratives, our presentation slides, online resources and bibliography of recent literature, our wikispace, as well as our GPS/ GIS and SIS projects will be made available to all participants on our social networking site for further dialog and collaboration.

REFERENCES

Burkhardt, G., Monsour, M., Valdez, G., Gunn, C., Dawson, M., Lemke, C., Coughlin, E., Thadani, V., & Martin, C. (2003). *21st century skills: Literacy in the digital age*. Retrieved January 29, 2008, from http://www.ncrel.org/engauge

boyd, d. (2008). Why youth (heart) social network sites: The role of networked publics in teenage social life. In D. Buckingham (Ed.), *Youth, Identity, and Digital Media* (pp. 119-142). Cambridge, MA: MIT Press.

Eco, U. (1996, November 12). *From Internet to Gutenberg.* Lecture conducted at the meeting of The Italian Academy for Advanced Studies in America, Retrieved February 3, 2008 from, http://www.italianacademy.columbia.edu/pdfs/lectures/eco_internet_gutenberg.pdf

Franklin, T. & Van Harmelen, M. (2007). *Web 2.0 for content for learning and teaching in higher education*. Retrieved February 3, 2008, from http://www.jisc.ac.uk/media/documents/programmes/digital_repositories/web2-content-learning-and-teaching.pdf

Freire, P. (2002). *Pedagogy of the oppresse*d. New York: Continuum.

Gould, E. (2003). *The university in a corporate culture*. New Haven: Yale University Press.

Hendron, J. G. (2008). *RSS for educators: blogs, newsfeeds, podcasts, and wikis in the classroom*. Washington, DC: International Society for Technology in Education.

International Society for Technology in Education. (2007). *National educational technology standards for students: The next generation*. Retrieved January 18, 2008, from http://cnets.iste.org/NETS_S_standards-1-6.pdf

Ito, M., Horst, H., Bittanti, M., boyd d.,Herr-Stephenson, B. Lange, P.G., Pascoe, C.J. & Robinson, L. (2008). *Living and Learning with New Media: Summary of Findings from the Digital Youth Project.* Chicago: The MacArthur Foundation. Retrieved Dec 31, 2008, from http://www.macfound.org/atf/cf/%7BB0386CE3-8B29-4162-8098-E466FB856794%7D/DML_ETHNOG_WHITEPAPER.PDF

Jenkins, H. (2006, October 20). *Confronting the challenges of participatory culture: Media education for the 21st century (part one)*. Retrieved March 20, 2008, from

http://www.henryjenkins.org/2006/10/confronting_the_challenges_of.html

Jenkins, H., Purushotma, R., Clinton, K., Weigel, M., & Robinson, A. (2006). *Confronting the challenges of participatory culture: Media education for the 21st century*. Chicago: The MacArthur Foundation. Retrieved Feb 2, 2008, from http://www.projectnml.org/files/working/NMLWhitePaper.pdf

Kahn, R. & Keller, D. (2007). Paulo Freire and Ivan Illich: Technology, politics and the reconstruction of education. *Policy Futures in Education, 5*(4), 431-448.

Lévi-Strauss, C. (1998). *The savage mind.* London: Weidenfeld & Nicolson.

Masterman, L. (1985/2001). *Teaching the media*. New York: Routledge.

Mejias , U. (2006, June/July). Teaching social software with social software. *Journal of Online Education*, *2(5).*

New London Group (2000). A pedagogy of multiliteracies: Designing social futures. In B. Cope & M. Kalantzis (Eds.), *Multiliteracies: Literacy learning and the design of social futures* pp. 9-38). London: Routledge.

Noon, D. (2007, June 14). Democracy 2.0. *Borderland*. Retrieved December 20, 2007, from http://borderland.northernattitude.org/2007/06/14/democracy-20

Oblinger, D., & Oblinger, J. L. (2005). *Educating the net generation*. Boulder, CO: EDUCAUSE.

Oldenburg, R. (1999). *The great good place: Cafes, coffee Shops, bookstores, bars, hair salons and other hangouts at the heart of a community.* (2nd ed.). New York: Marlowe& Company.

Owen, M., Grant, L., Sayers, S. & Facer, K. (2006). *Social software and learning.* Futurelab. Accessed on January 14, 2008. http://www.futurelab.org.uk/research/opening_education.htm

Partnership for 21st Century Skills. (2007, July 23). Framework for 21st century learning.

Retrieved February 8, 2008, from http://www.21stcenturyskills.org/documents/frameworkflyer_072307.pdf

Pew Internet and American Life Project. (2007, December 19). Teens and social media. Retrieved March 31, 2008, from http://www.pewinternet.org/pdfs/PIP_Teens_Social_Media_Final.pdf

Prensky, M. (2005). *Search vs. research. Or, the fear of The Wikipedia overcome by new*

understanding for a digital era. Retrieved March 20, 2008, from http://www.marcprensky.com/writing/Prensky-Search_vs_Research-01.pdf

Rheingold, H. (2008, October) *Writing, Reading, and Social Media Literacy Writing, Reading, and Social Media Literacy*. Harvard Business Publishing: Retrieved December 31, 2008, from http://discussionleader.hbsp.com/now-new-next/2008/10/the-importance-of-social-media.html

Richardson, W. (2006). Blogs, wikis, podcasts and other powerful web tools for classrooms. Thousand Oaks, CA: Corwin Press.

SRI International Center for Technology in Learning. (2007). *Learning Ecosystem.* Retrieved April 4, 2008, from School 2.0 Web site: http://etoolkit.org/etoolkit/

Srinivasan, R. (2006). Where information society and community voice intersect. *The*

Information Society, *22* (5), 355-365.

Soukup, C. (2006). Computer-mediated communication as a virtual third place: Building

Oldenburg's great good places on the World Wide Web. *New Media & Society, 8*, 421-440. [Online http://nms.sagepub.com/cgi/content/abstract/8/3/421]

Stimson, B. (2007, October), *An Educator's Manifesto! Arise! You have nothing to lose but your chains!*Classroom 2.0: Retrieved December 31, 2008, from

http://www.classroom20.com/forum/topics/649749:Topic:56987

Suter, V, Alexander, B. & Kaplan, P. (2005). Social software and the future of conferences—Right now. *EDUCAUSE Review*, *40* (1).

Tucker, P. (2007, January-February). The over-mediated world. *The Futurist, 16*. 12-13.

Unsworth, L.(2008). Multiliteracies, e-literature and English teaching, *Language and Education: International Journal* 22 (1).

VirtualAbility. (2008). *Virtual Ability Our People*. Retrieved December 31, 2008, from Virtual Ability, Inc. Web site: http://virtualability.org/ourpeople.aspx

Wesch, M. (2008a). Anti-Teaching: Confronting the Crisis of Significance. *Education Canada.* 48 (2), 4-7.

Wesch, M. (2008b, October 21). *A Vision of Students Today (& What Teachers Must Do)*

Britannica Blog;. Retrieved December 31, 2008, from

http://www.britannica.com/blogs/2008/10/a-vision-of-students-today-what-teachers-must-do/

KEY TERMS AND DEFINITIONS (includes all the terms included in the full paper)

Acceptable Use Policies (AUP)

AUP is a document with a set of rules developed by schools and school districts to prevent potential legal action, to inform parents of the use of new media and technologies in the school, and to provide guidelines for educators and students.

Banking Education

In the banking concept of education, education is an act of depositing, in which the students are the depositories and the teacher is the depositor.

Bricoleur/ Bricolage

Bricolage is a term used in the construction or creation of a work from a diverse range of things which happen to be available or a work created by such a process. It is in essence building by trial and error and is often contrasted to *engineering*: theory-based construction. A person who engages in bricolage is called a *bricoleur* and usually invents his or her own strategies for using existing materials in a creative, resourceful, and original way.

Boundary crossing

One benefit of social interaction software is that anyone usually can be members of online learning communities that do not discriminate against students because of age, culture or level of expertise. The phrase *boundary crossing* means students are able to move beyond their geographic or social community, enter other communities, and invite others to join theirs.

Critical autonomy

The process by which a member of the audience is able to read a media text in a way other than the preferred reading. Also used to describe the ability of media literacy students to deconstruct texts outside the classroom.

Distributed learning

Distributed learning can occur anytime, anywhere, in multiple locations, using one or more technologies. Learners complete courses and programs at home or work by communicating with faculty and other students through various forms of computer-mediated communication and Web-based technologies. Learners participate in classroom activities at their own pace and at a self-selected time.

Gallery Walk
Gallery Walk is based on Museum approach to teaching. *Gallery Walk* can be collection of artifacts (i.e. maps, pictures, posters, audio and video clips) designed to present the particular topic to the audience

Geocaching
It is an outdoor activity in which the participants use a Global Positioning System (GPS) receiver or other navigational techniques to hide and seek containers (called "geocaches" or "caches") anywhere in the world.

Learning Communities
Learning communities are informal learning environments. Emphasis is on authentic and collective learning. Learning communities are formed by groups of people who work together on projects, support one another, and engage in socio-cultural experiences.

Open Learning
Open or flexible learning is a type of distance education where the focus is on learning rather than teaching. It is student-centered, addresses local needs and requirements as opposed to standardized curriculum, and provides choices for students in meeting their educational goals.

Read/Write Web
This term refers to the new era of Internet, sometimes used to describe "Web 2.0." User will be able to contribute and publish content on the web in addition to passively read or search information.

School 2.0 eToolkit
It is designed to help schools, districts, and communities develop a common education vision for the future and to explore how that vision can be supported by technology. By encouraging a discussion of community-based next-generation schools, the eToolkit is designed to inspire to think creatively about teaching, learning, and management and then explore ways that technology can help meet those goals. It was produced by the SRI International Center for Technology in Learning with support from the U.S. Department of Education.

Social Media Classroom (SMS) is a free and open-source web service that integrates wikis, chat, blogs, tagging, media sharing, social bookmarking, RSS, and other read/write web tools. SMS provides teachers and learners with an integrated set of social media that each course can use for its own purposes and includes curricular material: syllabi, lesson plans, resource repositories, screencasts and videos.

Social Reconstructivist Theory

Social reconstructivist perspectives claim that the learning environment is active, that assessment is based on creative work, and that education is autonomous (or relatively autonomous) and can and does induce social change. Social Reconstructivist Paradigm represents knowledge as socially constructed through language and interpersonal social processes. The role of education is to enhance students' learning through the interpersonal negotiation of meaning.

Third Place
The sociologist Ray Oldenburg coined the term *third place* or *great good places* to describe the public spaces used for informal social interaction outside of the home and workplace.