



LEADERSHIP SYMPOSIUM: MOBILIZING 21ST CENTURY TEACHING & LEARNING

LEADERSHIP SYMPOSIUM REPORT

Advanced Broadband Enabled Learning (ABEL)

www.abelearn.ca



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Introduction

On February 19th, 2010, the Advanced Broadband Enabled Learning (ABEL) program hosted a Leadership Symposium, *Mobilizing 21st Century Teaching and Learning*, at which educational leaders began a dialogue and participated in action planning to build capacity for, and incorporate the effective use of technology for staff and student learning. The one-day session was facilitated by Sheryl Nussbaum-Beach, writer, doctoral candidate at the College of William and Mary, President of 21stCentury Collaborative, LLC, (<http://www.21stcenturycollaborative.com/>) and co-founder of Powerful Learning Practice, LLC (<http://plpnetwork.com/>). The Symposium was attended by Directors of Education, Superintendents, Principals, Faculty, Curriculum Consultants, Leadership Development staff and teacher-leaders from over eleven school districts representing both the Anglophone and Francophone communities. As well there was representation from the Ministry of Education, private sector and not-for-profit educational organizations.

This leadership symposium was the first of a series of professional opportunities for educators to explore, share, and develop plans for learning, teaching, and training in a digital world. **Blueprints for Change**, May 11th, 2010 at Bill Crothers Secondary School will provide an opportunity to continue the conversation by focusing on system support and the provision of technology to enhance student achievement. The **ABEL Summer Institute**, August 23, 24, and 25th will provide teachers, teacher-leaders, and administrators with opportunities to engage in professional learning that models and supports teaching and learning for the 21st century learner. Finally, the **Quest Conference**, November 17, 18 and 19th, 2010 will explore how technology engages learners in our digital world and leads to improved student achievement.

Rationale for the Symposium and Symposium Outcomes

There can be little doubt that information communications technology has had a transformative impact on society, changing the way we work and learn; access and share information; interact with people and collaborate and communicate. This transformation has resulted in a new economy, one that is knowledge-driven, connected, and global and that requires a learning focus that incorporates digital learning and system thinking. All educators and leaders face the challenge of adjusting their practices to ensure that students and staff are prepared to learn and work in this rapidly changing global landscape. Consequently, the Leadership Symposium on February 19th, 2010



The Leadership Symposium asked leaders to design strategies for system change that embraced both the needs of the 21st century learners and the role that technology plays in supporting effective instructional and learning practice.

asked leaders to design strategies for system change that embraced both the needs of the 21st century learner and the role that technology plays in supporting effective instructional practice and professional learning. During the symposium participants:

- explored the technological shift that has moved society from 20th to 21st century leading and learning;
- gained an appreciation of the effective use of technology for teaching and learning in the 21st century from teacher-practitioners, principals and students;
- experienced 21st century tools and learning strategies first-hand as participants in the symposium;
- began to design and develop system plans that mobilize 21st century teaching and learning;
- learned how the proven ABEL program and its sister project Learning Connections supports teams of teachers and leaders to work together to build instructional capacity for the effective use of technology for learning; and
- engaged in meaningful conversation with thoughtful leaders and innovative colleagues.

Participants were welcomed to the university by Dr. Stan Shapson, Vice President of Research and Innovation, selected from a carousel of sessions in which teachers and students demonstrated the efficacy of new models of teaching and learning that make effective use of technology, listened to Dr. Ron Owston, Director of the Institute for Research on Learning Technology report on what the research says about blended learning for teaching and learning and its impact on teacher professional learning, and attended a number of planning sessions facilitated by Sheryl Nussbaum-Beach <http://www.21stcenturycollaborative.com>. See the attached agenda for the day.

The Keynote Address: Unleashing Passion – Leading in the 21st Century

In her opening keynote address, Sheryl Nussbaum-Beach developed three major themes: how technology is reshaping 21st century society, the imperative for educational leaders to rethink 21st century leading and learning, and what strategies 21st century leaders can use to unleash powerful teaching



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and develop new educational leaders in their schools and districts. The following is a brief summary of her presentation and provided some of the context for participants as they reflected, discussed, and planned to mobilize 21st century learning.

How technology is reshaping 21st century

society: The explosion of new knowledge and the accelerating rate of technology adoption in a society where most people have access to the Internet and a range of digital tools is breaking down social isolation and creating a participatory culture. This culture, Sheryl Nussbaum-Beach argued, is characterized by relatively low barriers to engagement, strong support for sharing creations with others, informal membership, the belief that one's contributions matter, and concern for how others perceive self and work. She stressed that schools need to redefine themselves or become irrelevant in preparing students for the future, and challenged leaders to develop new literacy skills and new strategies in order to use evolving technologies to lead learning and effect change.

The imperative to rethink 21st century learning and leading:

Ms. Nussbaum-Beach also articulated the shifts that have taken place in learning since the introduction of the Internet and the development of new technology: knowledge is no longer linear but distributed, learning that once took place at school now takes place anytime and anywhere; teaching is no longer a private event but a public and collaborative practice; the learner is no longer a passive participant in that event but a learner in a participatory culture; and the learner now learns, not as an individual but in a networked community. She emphasized how important it was for leaders to understand the cultural shift that has occurred and the nature of change itself, to think in terms of the school as a learning community, to recognize the importance of relationships and engage in capacity building, to mobilize collective collaboration and communication, to view their leadership role as action researcher, and to be transparent in all of their professional activities.

What strategies 21st century leaders can use to unleash powerful consequences:

Ms. Nussbaum-Beach pointed out that social and intellectual capital has become the new economic values in the world community and that the greatest challenge for educational leaders is how to engage the hearts and minds of learners. She argued that passionate leaders unleashed learner potential by focusing on possibilities rather than classic 20th century problem solving (identifying the problem, conducting root cause analysis, brainstorming solutions, and developing action plans). Instead effective educational leaders in the 21st century appreciated what is, imagined what might be, determined what should be, and created what will be. As schools were only one node on a network



[Click here to view a webcast of the Leadership Symposium's keynote speech.](#)

of learning, it was important for leaders to take a multi-channel approach to leading and learning, to recognize the efficacy and power of a professional learning community, to understand the networks that were in play, and to engage in collaborative leadership. She advised educational leaders to build an online community of inquiry among themselves and to create a personal learning network as well.

The Facilitation

After the keynote address, Sheryl Nussbaum-Beach began the facilitation by asking participants to think about change in preparation for collaborative action planning. She provided four prompts to stimulate thought:

- What about the world and society has changed since you went to school?
- What about students has changed since you went to school?
- What about schools has changed or not changed since you went to school?
- What should school 2.0 look like in order to meet the needs of the 21st century learner?

Informal groups were invited to brainstorm responses to one of these prompts with the help of video clips and/or podcasts that informed their responses. These resources focused on the global learner and why it was important to become one, new brain research into how young people learned in a digital world, demographic changes that have brought ESL and ESD students into our classrooms, the different opportunities for learning that young people have today, the tacit curriculum, and how our concept of at-risk may be handicapping our students in the learning environments we have created.

The collaborative action planning began with a facilitated discussion of the barriers and restraints to managing change and culture shift in today's schools. As individuals, participants were asked to jot down on sticky notes at least five ideas that were proactive solutions to overcoming a barrier or restraint to reculturing schools around 21st century change, and then as pairs to group these ideas into emerging categories. Finally participants were asked to group themselves according to a category about which they felt the most passionate, and to craft action statements on how to overcome the barriers to change and meet the needs of the 21st century learners.



"I enjoyed the round table in groups. It was informative to hear the views of so many others. Inspiring. Thought provoking." - Delegate

The Results: Mobilizing 21st Century Teaching and Learning

A. The Barriers and Restraints to Managing Change and Culture Shift in Schools:

The following statements are a compilation of ideas that were expressed before any attempt to consolidate and/or categorize them. They reflect in content and language the discussion of the barriers and restraints in the facilitated discussions in six groups.

- The current curriculum does not reflect the future needs of our students; nor does it allow for appropriate evaluation of how they learn in the 21st century.
- Many teachers have a traditional mindset about the roles of teachers and students and have not yet moved from a teacher centered to a student centered classroom. Some do not understand the imperative for change; some are fearful of it, while others do not value the role that technology can play for learning. In addition, some parents do not value the technology that we use and society does not embrace the open school perspectives as we envision them.
- There is unequal access to technology and the Internet for both students and teachers. Board firewalls and site filters prevent the full exploration of knowledge, and school policies prevent the use in the classroom of those digital tools that students use for learning and communication outside the school.
- The physical design of our schools still presupposes a traditional approach to teaching and learning, and the regimented way in which schools structure the day, the week and the year promotes inertia, limits professional learning for teachers, inhibits professional collaboration, prevents differentiated instruction, and negatively affects student success.
- Technology is not available to all because of cost, poor equipment discourages teachers, hub and infrastructures are inconsistent and some schools are so antiquated that appropriate technology cannot be installed.
- Professional training which reflects the pressure that teachers are under, allows for time to become familiar and comfortable with the technology, and illustrates how to embed the technology into effective practice is not supported or available everywhere.



Some do not understand the imperative for change; some are fearful of it, while others do not value the role that technology can play for learning.

- Students and teachers do not form a learning community in which teachers currently model the correct use of the technology for learning.
- Schools struggle with uneven teacher responses to student needs because policies are not progressive, leaders stifle innovation and federations oppose a 21st century vision of both professional and student learning.
- There is sometimes a failure to recognize that change is a slow process, learning how to use technology effectively is a journey, and transition from a teacher-centered to student-centered learning is difficult.
- The concept of literacy that is currently embraced and for which educators and leaders are held accountable is too narrow for ensuring that our students are literate in the 21st century.

B. Proactive Solutions for Overcoming Barriers and Restraints:

The following is a selection of proactive solutions. The categories are those chosen by participants at the symposium. It is extensively reported in order to capture the rich discussion that contributed to the identification of solutions that will support and lead change.

Curriculum

- Identify key 21st century skills and change curriculum expectations and evaluation practices to incorporate them.
- Empower teachers by ensuring they have an understanding of what 21st century skills are and how to embed them in the curriculum.
- Redefine literacy to reflect the current and future reality as “the ability to express oneself in the main medium of society”.
- Focus on teachers as the drivers in effective technology use for learning because they are in the front line delivery of curriculum.
- Reduce the provincial curriculum to a set of 3 year benchmarks and introduce a research based set of developmental learning stages based on big ideas that all children must achieve.
- Introduce accountability for essential skills versus specific learning outcomes.
- Reorient the assessment structure to check off when overall expectations have been learned and not just met.



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Technology

- Provide ubiquitous wireless broadband access throughout the school/system so that students can capitalize on their own digital devices and so teachers can introduce new technologies.
- Provide teachers with access to the tools so that they can model their use and teach students how to use them appropriately and effectively.
- Permit all staff and students to use all applications available in the public domain.
- Set up the infrastructure to accommodate student smart devices.
- Provide full use of wireless without restrictions.
- Provide all teachers with the technology and hardware they require in the classroom.



Promote site-based collaborative leadership in which parents, community, students and staff build a culture that embraces technology rather than a system-designed vision and model.

Structure

- Create a timetable that frees teachers who are engaged in creating 21st century learning. Provide environments to collaborate and learn from each other, and restructure the school day/week to provide more time for collaboration and authentic learning.
- Promote site-based collaborative leadership in which parents, community, students and staff build a culture that embraces technology rather than a system-designed vision and model.
- Gather key stakeholders for a provincial working round table on teaching and learning with technology: unions, faculties of education, education related associations, students, etc. to align vision and practice.
- Talk to the local community to gather feedback as to what level of integration they are comfortable with.
- Define a centralized provincial direction to address best practice solutions, equity, and a multi-faceted approach.
- Establish focused/targeted goals and teacher expectations in order to reach success on a clear/defined pathway.
- Create a superintendent level position to address and administer information technology related solutions.
- Structure learning time in a more adaptive/flexible schedule.
- Ensure that Ministry, board and teachers are in committee meetings together.

- Restructure the school day/week/year to provide more time for collaborative, authentic learning.
- Introduce flexible staffing models and increased staff numbers to facilitate collaborative team-teaching opportunities.
- Develop pockets of inquiry in schools and classrooms with a responsibility to report out findings to the broader community.
- Group students flexibly according to learning needs and allow them to start and finish on more flexible schedules.
- Redraw school boundaries to share space and resources.
- Dismantle the factory model of schools to allow flow, access, voice, choice and differentiated life-long learning.
- Identify a significant problem in the school or system that would benefit from a technology based solution and focus assets on solving the problem.

Resources/Funding

- Develop a district strategic plan for integrated knowledge after re-evaluating current funding allocations at the Ministry, board, school, and classroom levels.
- Plan for a significant infusion of resources and distribute them equitably.
- Have schools develop individual plans that infuse technology into the hands of teachers/students.
- Access Ministry and board initiatives providing time and money to support professional learning.
- Do not invest in textbooks anymore; go for all digital resources. Invest in knowledge online (textbooks, sites, lessons) to free up funds.
- Recognize that corporations can provide money/infrastructure without exerting undue influence or marketing, and create government/corporate partnerships to ensure equitable access to technology for all students.
- Hire more technological staff to present, share, inspire, challenge, research, and mentor teachers in each school.
- Seek changes in the provincial funding formula to allow for flexibility in the allocation of resources (e.g. using textbook money for IT).
- If there isn't enough money to cover stable technological platforms and the most current software in schools, use the older but still useful platforms/software in the earlier grades and put the more current software into grades 11/12.



Dismantle the factory model of schools to allow flow, access, voice, choice and differentiated long learning.

Time

- Examine how teacher free time is allocated and look for opportunities to utilize that time in more meaningful ways.
- Schedule shared teacher time for developing pedagogy with technology, release time during the day for hands-on experimentation, for visits to classes, and for meaningful planning and professional discourse.
- Provide professional learning funds for teachers, EA's, and administrators to attend conferences, seminars, workshops, and job-embedded learning.
- Embed P. D. into daily practice.
- Change the bell schedule to accommodate professional training.

Collaboration

- Provide in-class support for teachers and students at the same time.
- Ensure that students, business partners, parents, community leaders, etc. attend workshops and leadership sessions like this.
- Provide clear, easy sharing work/lessons/good resources with school/board/ province/world teachers.
- Make stronger links through sector councils/ industry representatives, trustees so that there can be increased cooperation on working together for resources, in kind donations, and experimental learning opportunities for students/teachers.
- Plan 1:1 lunch and learn sessions...demonstrations, what I do sessions, etc., to provide motivation hooks for teachers in schools.
- Develop a shared understanding of what 21st century skills are, opportunities such as focused conversations among stakeholders (parents, students, teachers, administrators).
- Think deeply and connect the dots for people.
- Engage in consistent and congruent system/school based communication with explicit communication about the nature of the 21st century classroom.
- Get people talking about what's possible.
- Bring the federations on board and convince them to move to a model where teachers are on-going learners themselves, and facilitators of student learning, and students develop 21st century skills.



Get people talking about what's possible.

Leadership

- Employ leaders who understand the importance of innovation and are prepared to make this a priority in their work locations.
- Ensure that administration, superintendents, and Ministry people learn the technology and model its use.
- Ask leaders to take charge of promoting 21st literacies and become role models for teaching them.
- Embrace dissonance and dissension and welcome a diversity of ideas from students and teachers in moving forward.
- Make this effort a shared and supported journey.
- Engage in clear and compelling communications about vision, goals, and strategies to achieve 21st century leading and learning.
- Provide locally developed (from the ground up) teacher professional development.
- Proactively encourage change by supporting innovative staff, encouraging “risk-taking” and celebrating success.
- Identify official and unofficial teacher leaders in every school and district and empower them in the process.



Proactively encourage change by supporting innovative staff, encouraging ‘risk-taking’ and celebrating successes.

Inspiration/Motivation

- Use technology to enhance what we are doing well, not necessarily to replace it.
- Continue to encourage creativity and create a collaborative learning culture that embraces thoughtful change.
- Use the expertise that is in the school and that is less intimidating.
- Applaud what is being done and share/spread the word on great innovative practices.
- Work with parents and the community to help them understand why students are using technology tools.
- Separate issues of behavior from issues of technology.
- Teach parents and students how to protect themselves from cyber bullying, predators, identity theft, etc...
- Break down the silos between departments so that all see that technology is not separate from everything else that we do.
- Develop and deliver compelling messages on why and how school has to change.
- Develop a powerful language of advocacy.

Professional Development/Professional Learning

- Provide proper training for teachers with time to become familiar and comfortable with the tools, consolidate their learning, and become familiar with the best examples or exemplars.
- Reframe what teachers perceive as professional learning and value the learning that teachers have in their everyday lives.
- Take a blended learning approach to job-embedded teacher and principal professional development.
- Refocus teacher perspective on what learners need, on what learning is expected, and on how technology supports this learning.
- Use the concept of digital literacy as a rationale for teaching and learning.
- Focus on teaching/learning through technology, not on how to use the technology.
- Provide professional learning that always models the use of technology in a context relevant to teachers.
- Train teachers on how to become mentors and facilitators with the new learning.
- Use on-site job-embedded learning with digital coaches staying on location for a number of days/weeks.
- Establish carousels within schools where teachers can learn tools from each other.
- Introduce one new tool per meeting with examples of how it can be used.
- Demystify technology.
- Engage in differentiated professional learning.
- Take a small group approach in each school, building capacity one or two at a time.
- Indicate to schools where teachers can go for periods of time to learn new methods in a deeper way.
- Add a technology component into the TPA process.



Acquire and communicate research that connects the dots between technology and student achievement.

Support

- Highlight the support already available: curriculum, IT, government policy, Literacy and Numeracy Secretariat (LNS) resources, and technology staff.
- Acquire and communicate research that connects the dots between technology and student achievement.

- Develop a collective belief system.
- Clearly articulate beliefs around learning that embraces voice, creativity and innovation in place of conformity.
- Believe in and use open source (stop paying Microsoft license fees and use the cost savings for professional learning).
- Continue to have IT and Curriculum sit at the same table.
- Focus on what is already working – increased professional collaborative planning and co-learning.
- Provide more opportunities for teachers to share and build lessons using the Internet and technological tools so that they will understand the power for learning.
- Distribute multimedia exemplars of ideal 21st century lessons on the web.
- Develop/distribute a technology competencies continuum for teachers to gauge level of skill and use.
- Establish minimum competencies for teachers and leaders.
- Provide more job-embedded learning focusing on the integration of technology into effective practice.
- Establish roaming technology leadership teams who identify and train teachers in each school to be leaders.
- Unleash the power of student expertise by having student experts support teachers in learning new technological skills.
- Have digital literacy teachers available onsite to introduce new software.
- Get more teacher feedback to ascertain what they need personally to help incorporate technology into their practice.
- Use the accreditation system to motivate teachers.
- Honour all learning, formal and informal.



Clearly articulate beliefs around learning that embraces voice, creativity and innovation in place of conformity.

Research

- Research which technologies/solutions can deliver the most “bang for the buck” in terms of student learning and achievement.
- Compare student success at schools with significant technological integration to those without.
- Look for best practice and work to sustain, duplicate and develop them across the organization.

C. Immediate Action Statements:

Participants used the proactive solution ideas above to articulate action statements. Individual groups were asked to select a category about which they felt the most passion and to suggest actions that should be undertaken immediately. In some cases the groups decided to create new categories. Their action statements are presented in total but where two or more groups worked on the same category the categories have been combined.

Curriculum

- Identify required skills for the 21st century workforce.
- Incorporate 21st century skills into the curriculum.
- Restructure assessment to ensure 21st century learning is recognized and rewarded.

Technology

- Ensure all teachers and students have devices and connectivity.
- Develop a plan for purposeful enhancement of student learning through technology.
- Allow students to use their own technology and give them access to sites to ensure greater collaboration.
- Provide the hardware that allows teachers and schools virtual access to professional resource people and resources.
- Place greater emphasis on the appropriate use of technology.

Support

- Share best practices and reward innovation.
- Mentor teachers and leaders to build capacity and networks.
- Engage in Job embedded/pedagogically focused PD.

Policy

- Establish provincial policy that commits to integrating technology throughout the system and develop connections and best practices in all curriculum/system areas.
- Develop in each board an environment that empowers teachers and students to develop their own relevant learning and skills through PD infrastructure and local policy.
- Convince federations and unions to support 21st century learning for students and teachers.



Restructure assessment to ensure 21st century learning is recognized and rewarded.

- Institute 21st century timetabling in every board.
- Mandate accountability for use of technology in order to improve learning.

System Structure/Modifications

- Have each School Board develop a set of minimum standards and expectations with regard to the use to technology for learning.
- Implement opportunities for flexible, seamless structures that recognize learning happening in different contexts.
- Institute operational systematic collaboration between school/board administration and teachers in the classroom.
- Allow flexible scheduling for learning independent of time, place, and space at all levels.
- Shape attitudes at all levels (parents, community, teachers, and administration) to support the use of technology to enhance learning.
- Provide appropriate infrastructure.
- Build trust among students, parents, community, and staff.



Build trust among students, parents, community and staff.

Resources (Funding)

- Allocate professional development funds to support the technological advances/integration for learning.
- Develop strategic plans for fund allocation to purchase and service technology.
- Collaborate to provide service (training networking required for 21st century).
- Ensure learners are permitted to access all public domains with their own equipment (iPhones, iPods, netbooks, laptops) to reduce the need for money.
- Reconstruct budgets with a view to incorporating technology into instruction.
- Change provincial funding formula to allow for flexibility in the allocation of resources (i.e. using textbook dollars for IT and elearning resources).
- Explore models for cost-sharing, and allocation of provincial and regional funds to ensure equitable access.
- Give “them” (not necessarily to the loudest) the resources they need.
- Leverage what is already available (i.e. open source).

Time

- Provide release time or resource days for a school based project that utilizes technology to encourage 21st century teaching and learning. Include CRT's, staff collaboration, webinars, ABEL, etc.
- Understand that it takes time to develop comfort level to use the various resources available.
- Provide scheduled and unscheduled time for teachers to enable dialogue, collaboration, celebration of both students and teachers' success, and professional development.

Leadership and Collaboration

- Establish a system culture of continuous learning and collaboration.
- Bring all stakeholders to the table and work collaboratively with the larger community.
- Encourage distributed leadership and a risk-free learning and leading environment.
- Foster an understanding that information communication technology (ICT) can impact all learning for all learners in leaders and teachers.
- Make principal involvement in collaborative learning mandatory.



Professional Development/Learning

- Focus ongoing professional development for teachers in the areas of why technology is pedagogically important, how to use technology effectively and how to use student expertise to support them in learning new technological skills.
- Provide PD that integrates technology in content-based situations/ contexts (i.e. history, etc.).
- Model the best use of technology for learning in PD sessions.
- Include critical filters for all electronic tools and use process sheets.
- Provide teachers time to collaborate/plan/mentor/partner and learn on a regular basis.
- Give teachers access to learning facilitators in a variety of formats on an ongoing basis (e.g.- digital literacy coaches).
- Make sure the PD is self directed, not board dictated, involves teachers in the same subject areas, is peer-to-peer, and free of pressure.

Establish a system culture of continuous learning and collaboration.

Conclusion:

Leading education in the 21st century means changing practice that builds capacity for teachers and students to embrace the new learning opportunities that information communications technology affords. This includes re-defining our notion of literacy to include digital knowledge, skills, and attitudes; changing professional learning programs to model the effective use of technology; building strong pedagogical understanding that ensures that differentiated instruction meets the needs of every student; re-thinking the education structures that guide allocation of time and resources (infrastructure, content and hardware/software); and developing new collaboration and communication practice to ensure student success.

At the conclusion of the one-day Symposium, leaders shared their action statements and committed to work on their implementation strategies back at their local jurisdictions. Incorporating new teaching and learning strategies that make effective use of technology and affecting lasting change in the classroom is not an easy feat; it requires vision, leadership, commitment, and persistence from all stakeholders. With the passionate contributions and commitment from the Symposium delegates, strategies for system change that embrace the needs of the 21st century learner are taking shape.

The ABEL Program Office received positive feedback from delegates via Twitter messages, feedback surveys, and word of mouth. Others who were unable to attend the conference thanked the ABEL team via Twitter for streaming the keynote speeches live so they could also participate in the thinking and dialogue. If you have leadership and implementation experiences, [click here](#) to share them with us on Twitter. Using the ABEL Program Twitter hash tag (#ABEL) before your "tweet" will connect you to others striving to realize the mobilization of the 21st century classroom journey.

Next in ABEL's series of professional learning opportunities is the 2010 ABEL Summer Institute (ASI). This two-and-a-half day conference provides teachers, teacher-leaders, faculty, and administrators with an opportunity to engage in professional learning that models and supports teaching and learning for the 21st century learner. This year's theme, Creating the Future Now, focuses on new designs for classroom learning and leadership strategies that leverage the digital realm to engage students and improve student achievement. ASI 2010 will be held August 23, 24, and 25 at York University.

For more information, please [click here](#). For more information on the conference, the ABEL Program, or on upcoming professional learning opportunities, please contact the ABEL Program Office at abelinfo@yorku.ca.



Leaders shared their action statements and committed to work on their implementation back at their local jurisdictions.

APPENDIX

**ABEL Presents: Mobilizing 21st Century Teaching and Learning
A Series of Leadership and Learning Opportunities
Friday February 19, 2010
York University, Technology Enhanced Learning Building
8:30a.m. –4:00p.m.**

This leadership symposium prepares leaders to design strategies for system change that embraces the needs of the 21st century learner and the role that technology plays in supporting effective instructional practice. At this one-day session leaders will:

- Engage in meaningful conversation with thought leaders and colleagues
- Gain appreciation for the effective use of technology for teaching and learning from teacher-practitioners, principals and students
- Experience 21st century tools and learning strategies first-hand as participants in the symposium
- Begin to design and develop system plans that mobilize 21st century teaching and learning
- Learn how the proven ABEL program and its sister project Learning Connections supports teams of teachers and leaders to work together to build instructional capacity for the effective use of technology for learning.

TIME SLOT	ACTIVITY
8:00am – 8:30am	Breakfast and Registration – Meet and Greet Activity
8:30am – 9:00am	Welcome to the University Mobilizing 21st Century Learning: Dr. Stan Shapson
9:00am – 10:30am	Keynote Speaker: Sheryl Nussbaum-Beach http://www.21stcenturycollaborative.com/ Facilitated session with Q and A
10:30am – 10:45am	Break
10:45am-11:30am 11:30am-12:15pm	How does it work? The tools The strategies the results Carousel – Teacher, Students, Principal Delegates are invited to visit one of three sessions where teachers and students demonstrate the efficacy of new models of teaching and learning that make effective use of technology. This is an active learning session with opportunities for Q and A.
12:15pm-1:00pm	Networking Lunch
1:00pm-2:00 pm	Keynote – What the research says! Blended Learning Strategies for Teaching and Learning Ron Owston – Director of the Institute for Research on Learning Technologies
2:15pm-3:00 pm	Making Meaning of 21st Century Teaching and Learning: Facilitated discussion with the goal of defining strategies for teaching and learning in the 21 st century. What did you hear?; What did it mean?; And what <u>can you do with the ideas and information?</u>
3:00pm-3:15pm	Break
3:15pm-4:00pm	Mobilizing 21st Century Teaching and Learning: Group Facilitated Discussion and Action Planning
4:00pm–5:00pm	Reception and Networking

Annotated Bibliography: Additional Resources

Leading Education in a Digital World Valuable Web Sites with Interesting Articles

Becta at <http://schools.becta.org.uk>

Becta is a British government agency that is leading the national drive to ensure the effective use of technology for learning in British education and industry. Under such headings as leadership and management, curriculum, learning and teaching, professional development, and extending opportunities Becta offers advice, materials, articles, and tools. This is a particularly rich resource for classroom teachers, principals, superintendents, and managers.

The Consortium of School Networking at <http://www.cosn.org>

The Consortium for School Networking (CoSN) is a major voice for K-12 education leaders who use technology strategically to improve teaching and learning in the United States. CoSN provides products and services to support leadership development, advocacy, coalition building, and awareness of emerging technologies. Of particular interest are its *“CoSN Compendium”* (2008), a series of monographs exploring timely issues of importance to K-12 technology decision makers, its *“Emerging Technologies”* series, designed to keep such decision makers current with technological developments, and its *“Webcast Series”*, designed to stimulate thought and discussion about many current issues in ICT innovation and implementation.

ICT Digital Literacy at <http://www.ictliteracy.info>

This portal provides a rich global resource and interesting collaborative environment for disseminating ICT literacy materials, entering interactive discussions, exploring recent research, and contacting those interested in digital literacy

worldwide. Its resource directory offers a wide range of vetted PDFs on topics such as social networking, professional development, K-12 curriculum, digital literacy throughout the world, sustainable ICT, and international. It also provides valuable links to global forums, and private sector projects and resources. This portal is a rich vein of gold just waiting to be mined by students, educators, and managers interested in what is happening in the global world of digital literacy.

The ICT Test Bed Project at <http://www.evaluation.icctestbed.org.uk>

The ICT Test Bed, set up by the United Kingdom’s Department of Education and Skills, and Managed by Becta, investigates how the sustained and embedded use of ICT in learning spaces improves learner outcomes, classroom practice and institutional development in the United Kingdom. Of particular interest are its reports on the impact that embedding technology over four years (2002 –2006) has had in 30 British schools on teaching strategies and learner outcomes, leadership and management, professional development, inter-institutional collaboration and institutional links with the home and the community.

The International Society for Technology in Education at <http://www.iste.org>

The International Society for Technology in Education (ISTE) provides leadership and service to improve teaching, learning, and school leadership by advancing the effective use of technology in PK–12 and teacher education. ISTE presents innovative educational technology books and programs, conducts professional development workshops, forums, and symposia, and researches, evaluates,

and disseminates findings regarding educational technology on an international level.

Of particular interest are its *"National Educational Technology Standards for Students"* (2007), available on line, its *"National Educational Technology Standards for Teachers"* (2008), available at the NECC Conference in San Antonio in late June 2008 and online after that event, and its *"National Educational Technology Standards for Administrators"* (in development) and scheduled for release in 2009.

The Irving K. Barber Learning Centre for Digital Literacy at

<http://archive.ikebarberlearningcentre.ubc.ca/medlit.html>

This centre at the University of British Columbia provides valuable links to free online journals on media and digital literacy, a range of national and international web portals, and a list of academic centres, institutes and associations, all with a strong Canadian focus. In addition, it provides valuable rubric for assessing the quality of Internet resources at (<http://www.library.ubc.ca/home/evaluating>). This is a somewhat limited but still valuable resource.

The Metiri Group at <http://www.metiri.com>

This web site, sponsored by Cisco, provides educators with summaries of the major research into the use of technology in schools and its impact on learning. Of particular value are the lists of 21st century skills, a cross match of lists of skills produced by ISTE and EnGauge, a rubric of skills continua for ascertaining progress and research into multimodal learning through media categorized according to the tools and resources used by teachers for learning in the classroom.

The McArthur Foundation Digital Media and Learning Initiative at

<http://digitallearning.macfound.org>

The MacArthur Foundation launched its digital media and learning initiative in 2006 to help determine how digital technologies are changing the way young people learn, play, socialize, and partici-

pate in civic life. The site provides information about ongoing projects and emerging research; an innovative "knowledge network" of leading experts in the field; interesting testimonies from young people about how digital technologies are changing their lives; and recent webcasts and podcasts of panel discussions and conference presentations on digital media and learning. Of particular interest is the occasional paper *"Confronting the Challenges of Participatory Culture: Media Education for the 21st Century"* (Jenkins, 2006), a white paper that shifts the focus of the discussion of media literacy from the digital divide to the participatory culture that more than one-half of today's students experience in the digital world, and outlines the new media literacies that young people need in the new media landscape.

The Ontario Research and Innovation Optical Network at <http://www.orion.on.ca>

The Ontario Research and Innovation Optical Network (ORION) is an ultra high-speed fibre optic network that connects Ontario's research and education institutions to one another, and to partners and colleagues throughout Canada and around the world. Orion connects schools and school boards to other ORION users such as universities, colleges, and research labs, provides access to large databases, and provides opportunities to develop new real-time collaborative projects, including multipoint videoconferencing, grid-computing and advanced research applications across school districts in the province.

The Pew Internet and American Life Project at <http://www.pewinternet.org>

The Pew Internet and American Life Project, an initiative of the Pew Research Center, explores the impact of the Internet on children, families, communities, the work place, schools, health care and civic/political life. The site provides data-based reports and presentations on the pervasive use of technology among teens, presents findings on the impact of this use for educators, and makes available its data for further analysis. Of particular interest is the report *"Teens and Technology"* (Lenhart et al., 2005), a research-based analysis of

the pervasiveness of teenage technology use, the emerging technologies that teenagers use, and the purposes for which they use that technology in their private lives.

Project Tomorrow at

<http://www.projecttomorrow.org>

Project Tomorrow is a national education non-profit group based in Irvine, California that supports the innovative use of science, math, and technology resources in K-12 schools and communities, facilitates the replication of model projects, and provides online tools and resources for students, teachers, and parents. Of particular interest is its Project Speakup, which conducts research among students on their uses of technology for living and learning. Its most recent research data "*Learning in the 21st Century: A National Report on Online Learning*" (2006) presents the impact of online learning on student perceptions, learner and teacher collaboration, curriculum development, and engagement with the global community, and profiles online learning in six American school districts.

Slideshare Present Yourself at

<http://www.slideshare.net>

This web site provides some interesting and valuable PowerPoint presentations on a wide range of subjects from automotive to business to education to travel, many of which are of a high caliber, and some of which are downloadable. Entering *Digital Literacy* into the search engine brings up **Digital Literacy Literature Review: From Terminology to Action**, by Dr. Tabet Newman of Timmus Limited, an e learning and consultancy firm in the United Kingdom. This PPT Presentation is an argument for the thoughtful embedding of the teaching of digital literacy in all subject areas of the K-12 curriculum. Entering *Social Networking* into the search engine brings up **The Avatar as Communication** by Dr. Angela Thomas and Anya Ixchel, an exploration of how female avatars relate to female identity. For those willing to search, this unvetted web site can provide complete presentations, good definitions, and valuable ideas.

You Tube at <http://www.youtube.com> or <http://www.youtube.ca>

This website provides some surprisingly valuable resources for use in the classroom, and compelling video streaming for advancing the use of technology for authentic learning in the classroom. Entering *Students and Technology* in the search engine brings up **A Vision of K-12 Students Today**, a project created to inspire teachers to use technology in engaging ways to develop higher level thinking skills. Entering *The Future and Technology* into the same search engine brings up **(Dis)Connects on Writing Centers, Digital Natives and Digital Immigrants**, David Taylor's presentation at the 2009 CCCC Convention on how the University of Maryland uses digital technology to improve more traditional literacies in their student body. For those willing to search, this unvetted web site can provide some interesting finds.

Advanced Broadband Enabled Learning at

<http://www.abelearn.ca>

Advanced Broadband Enabled Learning (ABEL), situated in the Office of the Vice President Research and Innovation at York University in Toronto is a pan-Canadian program that uses its networks for knowledge sharing and collaboration and its professional learning program to transform teacher and faculty professional practice. The above website offers just-in-time, job-embedded professional learning to Ontario teachers who are integrating ICT into their curriculum and pedagogy, provides technological tools and resources and technological and professional support, and builds real and virtual learning environments in which teachers can learn. For more information email abelinfo@yorku.ca.

Articles, Videos, and Papers

2020 Shaping Ideas – Don Tapscott [Video]. (2010). Retrieved April 9, 2010, from <http://www.youtube.com/watch?v=ne7BLwrFS2I&sns=em>

In this video, Don Tapscott addresses how young people are learning and working and innovating after growing up with new technologies and the internet. If society is going to benefit from the innovation that youth bring because of their appetite for the use of information communications technologies then systems and institutions need to change. This video will be of interest to those leading change and looking for the way to effectively connect to and understand the next generation.

Bailey, Mark. (2009). "Classroom 2.0: Technology Engages Student Learning". *Education Today*, 21(1), 12-15.

This article describes in detail the dynamics of learning history in a Grade 8 classroom in Ontario where technology has been fully integrated for authentic learning. Of interest to those who wish to see what it looks like.

Bughin, Jacques, Chui, Michael, and Johnson, Brad. (2008). "The next step in open innovation". *The McKinsey Quarterly*, electronic journal available at <http://www.mckinseyquarterly.com>

This article presents a model of innovation as a convergence of like-minded parties engaged in the creation of common body of knowledge or a common product and investigates the phenomenon of distributed co-creation to use the technical term. Of value to those interested in the forms of collaboration facilitated by social networking.

Christensen, C., Baumann, H., Ruggles, R., and Sadtler, T. (2006). "Disruptive Innovation for Social Change". *Harvard Business Review*, December, 94-101.

This article presents a broad perspective on social change and introduces and illustrates the concept of catalytic innovation. It provides specific examples of catalytic innovators in a wide range of categories, including online learning, and illustrates how they work to effect social transformations. Of value to those interested in change and change management.

Dlott, Ann Marie. (2007). "A (Pod)cast of Thousands". *Educational Leadership*, April, 80-82.

Although American in context, this article presents replicable examples of Podcasting projects in the elementary school. Of value to elementary panel teachers using iPods with their students.

Fullan, Michael. (2007). "Change the Terms for Teacher Learning". *Journal of Staff Development*, 28(3), 34-35.

In this paper, the author argues that professional development as a term is a major obstacle to progress in teacher learning because external ideas alone do not result in changes in classroom practice. Quoting Richard Elmore, he states that improvement is a function of learning to do the right thing in the context of student success and in the setting where teachers work.

Fullan, Michael. (2004) "The Tri-Level Solution School/District/State Synergy". *Education Analyst (Winter, 2005)*, 4-5.

In this article, the author argues for total system transformation through the conscious, deliberate, reflective actions of the state in tri-level capacity building within a framework of accountability. He focuses on the appropriate actions of the school, the district and the state, and defines capacity building as defined as actions that lead to an increase in the collective power of a group to improve student achievement, especially by raising the bar and closing the gap for all students.

Girod, Mark & Cavanaugh, Shane. (2001). "Technology as an Agent of Change in Teacher Practice". *T H E Journal*, 28(9), 40-47.

Girod and Cavanaugh speculate that technology-rich classrooms will lead teachers to push new boundaries of knowledge, resources and content by using technology, move teacher belief towards a problem-solving, constructivist view of learning, empower students by providing them with a freedom to learn, explore, and critique knowledge, and create new innovative "learning communities" in the classroom.

Hur, Jung Won and Brush, Thomas. (2009). "Teacher Participation in Online Communities: Why Do Teachers Want to Participate in Self-Generated Online Communities of K-12 Teachers?". *Journal of Research on Technology in Education*, 41(3), 270-302.

This research study examines reasons why K-12 teachers participate in online communities and the implications for designing teacher professional learning programs. Of value to those interested in creating effective online communities of practice.

Jarche, Harold. (2009). "Network Learning".

This article describes how the internet is changing how we work, learn and socialize and provides ideas and suggestions on how the internet can be used in learning and businesses to adjust to the changing internet workplace and learning culture. This article will be of interest to educators, administrators and managers who are looking to use the internet to help improve their students' learning, schools, and businesses.

Leu, Donald J. Jr., Kinzer, Charles K. , Coiro, Julie L., Cammack, Dana W. (2004). "Toward a Theory of New Literacies Emerging From the Internet and Other Information and Communication Technologies in Theoretical Models and Processes of Reading International Reading Association". Newark: DE. Also available at <http://www.readingonline.org/newliteracies/leu>

This article argues for an evolving definition of what we mean by literacy, presents a detailed overview of the new literacies in the digital age, and proposes a paradigm for viewing literacy in the 21st century. This is of interest and value to educators who are exploring the new skills that students are developing as they use technology for learning in their classrooms.

Levin, T., & Wadmany, R. (2006). "Listening to Students' Voices on Learning with Information Technologies in a Rich Technology-Based Classroom". *Journal of Educational Computing Research*, 34(3), 281-317.

Levin and Wadmany point out that change is not generated in the classroom by the technology itself, but by the restructured collective vision of the teacher and the students, after experiencing new modes of learning in appropriately designed, relevant, and technologically rich classroom learning environments.

McConnell, David. (2005). "Examining the dynamics of e-learning groups and communities". *Studies in Higher Education*, 30(1), 25-42.

This is a detailed ethnographic study of three networked e-learning groups working to produce a product collectively, two of which were successful, one of which failed. The author shows that the place of identity, control, security and guilt can be central to the work of collaborative e-learning groups. Although focused on adults in a Masters Degree program, this article is of interest to teachers and students working in this new environment at any level.

Murphy, Janet, & Lebens, Robert. (2009) "Leveraging New Technologies for Professional Learning in Education: digital literacies as culture shift in professional development". *e-Learning*, (6)3, 275-280.

This article highlights the lessons learned from an award-winning professional learning program developed by the Advanced Broadband Enabled Learning project (ABEL), a Research and Innovation initiative at York University in Toronto, Canada. Ongoing research into this program reveals that teachers who are learning via technologies refine their understanding of digital literacy, and develop curriculum designs and instructional strategies that facilitate differentiated instruction through digitally mediated designs, increase student engagement in learning, and improve student achievement.

Murphy, J., & Lebens, R. (2008). "Unexpected outcomes: Web 2.0 in the secondary school classroom". *International Journal of Technology in Teaching and Learning*, 4(2), 134-147.

This paper presents a small-scale research study into teacher use of Web 2.0 tools and applications in secondary school as a result of teacher participation in a technologically mediated and job-embedded professional learning program. The authors provide examples of how Web 2.0 and social networking tools have had a positive impact on ESL literacy, shaped student social attitudes, challenged social stereotypes, transformed teacher understanding of their roles and raised new pedagogical issues about student achievement, the nature of literacy, and equity in evaluation practices.

MacDonald, R. J. (2008). "Professional Development for Information Communication Technology Integration: Identifying and Supporting a Community of Practice through Design-Based Research". *Journal of Research on Technology in Education*, 40(4), 429-445.

This research study investigates how a design-based research methodology supports a community of practice and contributes to ICT integration. Of value to those interested in the relationship between research and practice.

Nunamaker, J. Reinig, B. and Briggs, R. (2009). "Principles for Effective Virtual Teamwork". *Communications of the ACM*, 52(4), 113-117.

This article presents criteria for effective virtual teamwork, and cogent advice on organizing, motivating, and managing a virtual team. Of interest to those who get things done with teams in the virtual world.

O'Connor, Eileen, & Sakshaug, Lynae (2009). "Preparing for Second Life: Two Teacher Educators Reflect on Their Initial Foray into Virtual Teaching and Learning". *Journal of Educational Technology Systems*, 37(3) 259-271.

In this article two teachers reflect on how they worked with Second Life to meet their differing instructional needs and the ways they prepared students for their new learning experiences, and offer suggestions for teachers who want to use SL in their classrooms. Of particular interest to teachers new to Second Life.

Patten, Kathryn B., Craig, Kathryn, and Valcarcel, Dorothy. (2007). "iPods and English-language learners: a great combination". *Teacher Librarian*, 34(5), 34-39.

This article presents four action research studies into using iPods with English language learners in two elementary and two middle schools. Teachers report improvements in writing skills, vocabulary development, and comprehension. The article includes recommendations on how to integrate iPods into curriculum so as to ensure improvement in traditional literacies. Of interest to participants in the Learning Connections community.

Pachler, N. & Daly, C. (2009). "Narrative and learning with Web 2.0 technologies: towards a research agenda". *Journal of Computer Assisted Learning*, 25, 6-18.

This paper explores how narrative enables users of Web 2.0 technologies to participate meaningfully in the exchange of experiences and ideas, and suggests a research agenda for exploring such technologies as social utilities in the construction of knowledge. Of particular interest to teachers using blogs in their classrooms.

Prensky, Mark. (2006). "Listen to the Natives". *Educational Leadership*, 63 (4), 26-36.

The author argues that those entrusted with the stewardship of our children's 21st century education will need to take stock of the fact that our students are generally fluent in the language of computers, video games, and the Internet; that they are comfortable working with the most cutting-edge technologies; and that they learn easily through game play. Educators need to engage students electronically, collaborate with students and give them a meaningful voice in school, ensure that the curriculum teaches 21st century skills and knowledge, and find a more flexible way of organizing schools.

Säljö, R. (2010). "Digital tools and challenges to institutional traditions of learning: technologies, social memory and the performative nature of learning". *Journal of Computer Assisted Learning*, 26, 53-64.

This article presents a concise overview of how technology through the century has shaped learning and the concept of literacy and proposes a new transformative metaphor for learning to replace the metaphor that has been in place for centuries.

Siegle, D. (2007). "Podcasts and Blogs: Learning Opportunities on the Information Highway". *gifted child today*, 30(3), 14-19.

This article provides a cogent argument for the use of Podcasts and blogs as tools for learning and a number of rich web sites that teachers and students can access for teaching ideas, clear instructions, sophisticated examples, and free software. Valuable for both beginners and experienced users.

Siegle, D. (2008). "Videoconferencing: Moving Beyond E-Mail and Chat". *gifted child today*, 31(4), 14-18.

This article offers videoconferencing ideas for students, helpful planning hints, videoconferencing websites where one can access free materials and software, and clear instructions on how to use MeBeam and Skype. Valuable for both beginners and experienced users.

Swan, Karen, Kratcoski, Annette, Mazzer, Pat, and Schenker, Jason. (2005). "Bringing Mohamed to the Mountain: Situated Professional Development in a Ubiquitous Computing Classroom". *Journal of Educational Computing Research*, 32(4) 353-365, 2005.

Swan et al. describe an ongoing situated professional development program in which teachers bring their intact classes for an extended stay in a ubiquitous computing environment equipped with a variety of state-of-the-art computing devices. The program not only increases teachers' knowledge and confidence in technology integration but also changes the ways in which teachers think about and use a variety of technologies in their classrooms.

Swan, Karen, Van T Hooft, Kratcoski, Annette, & Schenker. (2007). "Ubiquitous Computing and Changing Pedagogical Possibilities: Representations, Conceptualizations and Uses of Knowledge". *Journal of Educational Computing Research*, 36(4) 481-515.

An extension of the above study, this article identifies the ways in which ubiquitous computing environments support both individual and social construction of knowledge and the role that digital devices play in such support. Of interest to teachers who need concrete examples of what teachers and students learn and what they generate in a computer rich classroom.

Wenglinsky, Harold. (2006). "Technology and Achievement: The Bottom Line". *Educational Leadership*, 63 (4), 64-73.

By analyzing test score and questionnaire data from the National Assessment of Educational Progress (NAEP), the author finds that students who make more frequent use of computers for generic academic tasks—word processing, art projects, creating charts, tables, and graphs, and communicating through e-mail and chat groups—had higher achievement in history. He concludes that high schools will get the biggest boost to student achievement by ensuring that students have the basic technology skills they need to apply technology flexibly to learning tasks in their content-area courses.

Updated: April 2010