

A PRELIMINARY SNAPSHOT

The Future of e-Learning

*realities,
myths,
challenges and
opportunities*



Contact North/Contact Nord

ROUNDTABLE
ON
e-Learning

Tuesday, March 25, 2003 · Wednesday March 26, 2003
Toronto · Ontario · Canada

CONCEPT

- Contact North/*Contact Nord*, Canada's largest distance education and training network, headquartered in Sudbury and Thunder Bay, Ontario, is hosting a series of international roundtable discussions - think tanks - on e-learning. Our objective is to facilitate on-going Roundtables, dialogues, discussion and research papers that will build and maintain an ongoing knowledge base - a kind of institute on e-learning - for use by institutions in Ontario, Canada, and around the world.
- The Roundtables will bring together a blue-ribbon panel of recognized experts representing the forefront of e-learning from the public and the corporate sector, service and support organizations and government.
- The first Roundtable will primarily focus on the current and emerging realities (and myths!) of e-learning today and produce a snapshot of what we see as the major trends and directions in e-learning. We will inevitably touch on the challenges and opportunities that will be the main topic of a future roundtable.
 1. Significant developments in e-learning
 2. Exemplary practises in e-learning
 3. Growth and engines of growth in e-learning
 4. Key technologies and platforms
 5. Contributions being made or that should be made by government, institutions, private sector providers, etc.
- The first Roundtable - a two day event - will be held in Toronto, Ontario, Canada on Tuesday, March 25, and Wednesday, March 26, 2003.
- Each Roundtable will result in summaries and distillations of the discussions, synergies from the collective wisdom of the group of experts, powerful planning and policy backgrounders for institutions, governments and funders, strategic thinking and recommendations, and a framework for provincial financial and other policies with respect to educational technologies.

CONTEXT

Canada entered the 21st century with a population better educated than ever, according to new data from the 2001 Census. The hallmark of the 1990s was the tremendous growth in the number of Canadians with a college or university education, a trend that began at the end of the Second World War. *StatsCan*, (<http://www12.statcan.ca/english/census01/Products/Analytic/companion/educ/canada.cfm>)

Canadians are now at the top of the class, holding the highest percentage of university degrees and college diplomas among the major industrialized countries. Canada has the highest proportion of educated people among the 30 countries of the OECD..., with 41 per cent of the working-age population holding a degree or diploma. That is followed by 37 per cent in the US and 36 per cent in Ireland. (*Globe and Mail*, March 12, 2003)

The Canadian education system has much to be proud of but has no right to rest on its laurels. According to the analysis by *StatsCan*, and reported by the *Globe and Mail*, three developments have set the stage for advances in higher education: a labour market that had a preference for skilled workers to compete globally and in a technologically advanced economy, immigration rules designed to attract the highly skilled, and a recession in the early 1990s that was particularly difficult for young Canadians. There is growing pressure on Canadian educational institutions and the workplace itself to enable all Canadians access to higher education and to continuing education.

In recent times, there have been a series of efforts at the provincial and national level to examine and enhance the presence of e-learning in Canada. The Government of Canada established the Advisory Committee for Online Learning (chaired by Dr. David Johnston, President of the University of Waterloo) and the National Broadband Task Force. The federal Office of Learning Technology (OLT) continues to support and promote research on online learning. The Council of Ministers of Education, Canada (CMEC), currently chaired by Ontario's Minister of Training, Colleges and Universities, The Honourable Dianne Cunningham, has called for the Federal Government to "provide significant financial investments in on-line connectivity,

especially to promote the development of e-learning." (*Canada NewsWire* November 15, 2001). Ontario continues to play a leadership role in its capacity as the Chair of CMEC.

The Canadian Association for Distance Education (CADE) held their annual conference hosted by Athabasca University in May 2002 in Calgary in conjunction with the International Council on Open and Distance Education (ICDE) annual conference. The conference title was *New Century - New Models: New Standards for the Educational Mainstream*. Many of the keynote speakers spoke to the notion of how much change is occurring in distance education and how we will soon only speak of 'learning'.

At the provincial level, the efforts by the Deputy Minister of Training, Colleges, and Universities, Kevin Costante, aided by Assistant Deputy Ministers, Bill Forward and Jessica Hill, the Community Services Cluster CIO, Dr. Catherine Henderson, and Colleges Branch Director, Janet Hope, to help institutions and service organizations in Ontario develop a concerted strategy to e-learning has been enormously constructive. The initiatives of TVOntario to support public-private partnerships in the development of online learning programs and courseware should have a significant impact on the enhancement of expertise in e-learning in Ontario. The Council of Ontario Universities (COU) produced a report, *A Time to Sow: Report from the Task Force on Learning Technologies*, which strongly supports a future for e-learning. We have a new university in Ontario with a focus on technology. The Association of Colleges of Applied Arts and Technology of Ontario (ACAATO) outlined a business case for distributed learning in a plan entitled *eCAAT - A Distributed Learning Network for Ontario College Learners*. We have accomplished a lot in a few short years.

While much has happened there still remains a need for ongoing thinking, discussion, and exploration of the emerging realities, challenges and opportunities of e-learning. John Ralston Saul recently wrote, "*Canadians are almost embarrassed that our discourse needs to be one of uncertainty and complexity. We haven't yet learned to*

think of a permanently ongoing experiment as a statement of success.” (Globe and Mail, March 11, 2003).

While he wrote this in the context of a reflection on Canada’s position with respect to the pending US war with Iraq and comments made by Supreme Court of Canada Chief Justice Beverley McLaughlin at the 4th Annual LaFontaine-Baldwin Lecture, his sentiment could just as easily have been a commentary on the state of learning (and e-learning) in Canada. We are uncertain, as a whole, of where to go next. The state of our learning system is complex in a “non-monolithic society”. And yet we have, and wish to continue to have, the best education system in the world. This Roundtable will hopefully provide a venue for a very learned discussion about the future, the complexity and uncertainty of (e)learning in Canada.

EXPERT PARTICIPANTS

The sixteen leaders acknowledged e-learning leaders from the public and private sector participating in this first in a series of Contact North/*Contact Nord* Roundtables on e-learning, are educators, administrators, researchers, authors and policy makers.

They all have a strong focus on and an abiding interest in how information technology can help increase access, improve flexibility and enrich the learning experience.

These international leaders come from a variety of geographic locations including Australia, Canada, United Kingdom and the United States. They have worked, presented and consulted on all five continents.

- **Dr. Dominique Abrioux** (Canada), President, Athabasca University, Canada's Open University; President, Canadian Virtual University - *université virtuelle canadienne*; Vice-President for North America, International Council of Distance Education (ICDE); Honorary Fellow, Commonwealth of Learning; member, Government of Canada Educational Marketing Advisory Board; Commissioner, Council for Higher Education International Commission (USA).
- **Dr. Terry Anderson** (Canada), Canada Research Chair in Distance Education, Athabasca University, Canada's Open University; co-author of e-learning *in the 21st Century: A Framework for Research and Practice*, of *Using Disruptive Technologies in the Universities: Confessions of an Agent Provocateur*, and of *Networked Learning: Pedagogy of the Internet*; member of the editorial boards of the *Journal of Distance Education*, of *Internet in Higher Education*, and of the *International Review of Research in Open and Distance Learning*; former Director, Contact North/*Contact Nord*.

- **Dr. Roberto Bamberger** (USA), Manager, Microsoft Corporation's Learning Solutions and Professional Development; member of Microsoft Corporation's Education Solutions Group; Associate Editor of Interactive Learning Environments; former Director of Computing and Educational Media Services; former Assistant Professor, School of Electrical Engineering and Computer Science, Washington State University; former consultant to Asymetrix Learning Systems.
- **Dr. Tony Bates** (Canada), Director, Distance Education and Technology, Continuing Studies Division, University of British Columbia; author of over 350 articles and papers and seven books in the area of distance education and the use of technology for teaching, including the award-winning *Managing Technological Change - Strategies for College and University Leaders*; co-author of the upcoming *Effective Teaching with Technology in Higher Education for Success*; Research Associate, Contact North/*Contact Nord*.
- **Dr. Tom Carey** (Canada), Associate Vice-President, Learning Resources and Innovation; Director, Centre for Learning and Teaching Through Technology, and Professor of Management Science, University of Waterloo; Co-chair North American MERLOT (Multimedia Educational Resource for Learning and Online Teaching); Senior Associate of the TLT Group in Washington D.C.; former Co-leader of the Workplace Research theme in the Telelearning Network of Centres of Excellence.

- **Ms. Gisèle Chrétien** (Canada), President, Collège Boréal; former member of Canada's Advisory Committee for Online Learning; member, Board of Directors, TVOntario; member the Government of Canada Educational Marketing Advisory Board; member, Board of Directors, Contact North/*Contact Nord*; member of the Board of Directors of the Mining Innovation, Rehabilitation and Applied Research Corporation (MIRARCO).
- **Mr. Stephen Downes** (Canada), Senior Research Officer with the National Research Council of Canada, working with the e-learning Research Group; frequent presenter on e-learning and author of many reports and articles, including *The Future of Online Learning*, *Nine Rules for Good Technology*, *Models and Strategies Towards A Canadian On-Line Education Infrastructure* and *Design Principles for a Distributed Learning Object Repository Network*; author and editor of *OLDaily*, a daily electronic listing of news and developments related to online learning; Research Associate, Contact North/*Contact Nord*.
- **Mr. Tim Gilbert** (USA), IBM Corporation Expert in e-learning; founder of WorldRoom Consulting to assist in the development of next generation interactive communications and e-learning solutions; established VisiocomUSA; editor of *Teleconferencing Business Magazine*; worked with many major manufacturers of VTC hardware and WBC software including Polycom, PictureTel, Vtel, Tandberg, Sony, Centra and WebEX.

- **Dr. Diana Laurillard** (United Kingdom), Head, e-learning Strategy Unit Department for Education and Skills, United Kingdom; author of *Rethinking University Teaching: A Framework for the Effective Use of Technology in Education*; former Head of the Open University's Institute of Educational Technology, the largest centre for educational technology in the world; former Pro-Vice-Chancellor, Learning Technologies and Teaching, The Open University; member of Harvard University Visitors Committee for IT; member of the Foresight Panel on " Learning Processes in 2020", UK
- **Dr. Diana Oblinger** (USA), Executive Director of Higher Education, Microsoft Corporation; author of five books, including *The Learning Revolution*, *The Future Compatible Campus*, *Renewing Administration*, *E is for Everything* and *Best Practices in Student Services*, and of more than two dozen monographs and articles on higher education and technology topics; Senior Fellow for EDUCAUSE Center for Applied Research; former Vice President for Information Resources and Chief Information Officer for the 16-campus University of North Carolina system.
- **Ms. Mary O'Hara** (Canada), Vice-President & Practice Leader, People Development for BCE Corporate Services; provides support and leadership to Bell Canada and BCE Companies in the areas of Talent Management, Enterprise Learning and Personal Development and is responsible for e-learning programs and enablers throughout Bell Canada and BCE.

- **Dr. Gilbert Paquette** (Canada), Director, CIRTA Research Centre (LICEF); Professor, Télé-Université, Québec; Canada Research Chair in Cognitive Engineering of Teletraining; President of Canal Savoir; former Leader of the TeleLearning • NCE research theme "Telelearning for the Workplace".
- **Dr. Ross Paul** (Canada), President, University of Windsor, and author of *Open Management and Open Learning: Leadership and Integrity in Distance Education*; Chair, Board of Directors, Optical Research Advanced Network of Ontario (ORANO); founding President of CREAD, a distance education consortium for all of the Americas; former Vice-President (North America) for the International Council of Distance Education (ICDE); Chair of WEDnet.
- **Dr. Richard Skinner** (USA & Canada), President and Vice-Chancellor, Royal Roads University; former President and Chief Executive Officer of GLOBE (GLOBAL Learning Online for Business and Education) of the University System of Georgia, USA; Chair, international team assisting the Ministry of Higher Education in the United Arab Emirates; consultant with EDS on the US Army's eArmyU initiative, a program that offers higher education online to U.S soldiers around the world; work with higher education authority for Ireland to plan a distance education system for that country.
- **Dr. Jim Taylor** (Australia), Deputy Vice-Chancellor, Global Learning Services, The University of Southern Queensland, Australia; President, International Council of Distance Education (ICDE); author of *The Future of Learning - Learning for the Future: Shaping the Transition*; of *5th Generation Distance Education*, and of *The Death of Distance: the Birth of the Global Higher Education Economy*; consultant to the International Institute of Educational Planning, UNESCO, Paris.

- **Ms. Jutta Treviranus** (Canada), Established and directs the ATRC, a center of expertise on barrier-free access to academic technology. Interim Director, University of Toronto Resource Centre for Academic Technology (supports the effective application of technology to meet the teaching, learning and research goals of the University of Toronto); chair of the World Wide Web Consortium (W3C) Authoring Tool Accessibility Working Group and the IMS Global Learning Consortium Accessibility Working Group on international standards and technology-assisted teaching and learning. Directs a number of Pan-Canadian inclusive e-learning, research networks including TILE, CNICE and the Barrier-Free Project.

LIAISON WITH THE BOARD OF DIRECTORS OF CONTACT NORTH/*CONTACT NORD*:

- **Ms. Barbara MacPherson** (Canada), Senior Policy Advisor, Postsecondary Education Division of Ontario's Ministry of Training, Colleges and Universities; primary responsibility for over 10 years has been the research, development and implementation of various components of Ontario's e-Learning strategy; Ontario government's liaison to the Contact North/*Contact Nord*'s Board of Directors; former administrator of the School for Addiction Studies of Ontario's Addiction Research Foundation.

CHAired AND HOSTED BY:

- **Mr. Maxim Jean-Louis** (Canada), President & Chief Executive Officer, Contact North/*Contact Nord*, Northern Ontario's Distance Education & Training Network; member, Board of Directors, The Optical Research Advanced Network of Ontario (ORANO); member, Chair's Advisory Council on e-Government, Government of Ontario; Chair, Broadband Wireless Multimedia Group and of TECNorth.

COORDINATED BY:

- **Ms. Lois Tobin** (Canada), Coordinator, Business Development and Community Relations, Contact North/*Contact Nord*; Head, Ontario Centre of Excellence in Videoconferencing; Architect, Wired for Learning: Technology Working in the Classroom Program, Contact North/*Contact Nord*; co-author, *Building Basic Skills for Adults in Small Remote Communities*, and of *Using Videoconferencing as a Mode of Curriculum Delivery for Learners with Special Needs in Small and Remote Communities*.

RECORDED BY:

- **Dr. Douglas Knight** (Canada), Research Associate, Contact North/*Contact Nord*; author of *Learning and Cost-Effectiveness of Instructional Technologies: A Proposed Research and Evaluation Agenda*; *Technology Outcomes for Students: A Proposed Development and Accountability Framework*; co-author, *Building Basic Skills for Adults in Small Remote Communities*; and *Learning Online: A Guide for Online Instructors*. Online Instructor and course developer, Faculty of Extension, University of Alberta.

THE SYNOPSIS

In preparing for this important discussion on e-learning, Contact North/*Contact Nord* conducted interviews with each of the sixteen expert participants who will be joining us for the Roundtable. The interviews with expert participants focused on four key questions regarding e-learning:

1. What are the **realities** of e-learning today?
2. What are the current **myths** in e-learning?
3. What are the **challenges** in e-learning?
4. What are the **opportunities** in e-learning?

The goal of this first Roundtable is to provide a snapshot of where e-learning is today and to develop a series of recommendations that policy-makers, educators and the private sector can use to advance the concept of e-learning around the world.

In order to help facilitate the discussion, we have produced a preliminary synopsis of the interviews with each of the expert participants to provide an initial snapshot of where e-learning is today.

It is interesting to note that while there are a wide variety of opinions on e-learning from the expert participants on many specific subjects, in general, the participants' responses to our four key questions are remarkably similar.

Perhaps one of the comments from our participants sums up the general view of e-learning today:

"Most of the hype has now disappeared, and people have returned to a sense of reality in that they recognize that where we're at today is past the irrational exuberance of the late 1990s around e-learning."

From this starting point, we are pleased to provide this synopsis of the *realities, myths, challenges and opportunities* in e-learning today.

WHAT ARE THE REALITIES OF E-LEARNING TODAY?

Interestingly enough, all of the participants are essentially on the same page with the general opinion that e-learning has come a long way since the initial hype of the mid-90's around anything associated with the 'e'. The e-learning field is starting to mature and gain new found acceptance.

Given that this varied group of participants arrived at essentially the same conclusion re-inforces the position that e-learning is in a maturing state and is poised to grow in the coming years.

Like many of the other 'e' based concepts such as e-commerce, it was initially predicted that e-learning would quickly eclipse the traditional learning methods and traditional educational institutions would cease to exist. However, this clearly did not happen.

In validating this view, one of the expert participants states, *"The goal is not to have e-learning. The goal is to address the learning needs of individuals, groups, disciplines and subjects, and to find the best possible way to do that. So in that sense, e-learning is part of a long-term evolution of learning and learning technologies as approaches to learning."*

To summarize, e-learning is perhaps not the best term to use. Rather, we should be describing this approach as learning enhanced through information and communication technologies where the technology becomes the enabler for learning and opens up a whole new realm of possibilities to learners.

In general, the expert participants express a profound sense of optimism for the future of e-learning. They talk about the need for further research into the best learning and instructional methods, how to make the best use of the technology, and how to prepare instructors and students to make the best use of the technology. They clearly see significant opportunities for growth in this field.

The expert participants clearly identified two realities:

1. We are over the hype and e-learning is a maturing, growing concern.
2. Successful e-learning initiatives have combined the appropriate use of technology with effective instructional methods and designs.

Here is a sampling of some of the opinions of the various expert participants on the realities of e-learning today.

- “e-learning still hasn’t reached its stride yet, but it is showing a lot of potential. There are signs in different areas that widespread adoption of e-learning is imminent and that the difficulties that have plagued us in those early days will be a thing of the past.”
- “We are probably on the end of the early adopter phase and moving more into the mainstream. It is important to remember that e-learning is still a recent thing.”
- “We are at a very good stage in that we are past the hype stage - both the positive and negative hype. We seem to have lost a number of the unrealistic expectations. We have also lost a number of the fears that surround e-learning.”
- “We are poised to make something of e-learning.”
- “To all appearances, e-learning is spreading very fast. All large organizations have e-learning programs being introduced in one form or another, and most, if not all, universities and colleges have courses that are being delivered using technology.”

- “There is a general acceptance of online learning today that is different from the acceptance of distance learning in the past...It is generally accepted now because traditional universities are engaged in it, and they bring their credibility.”
- “Generally, we are not where we thought we would be at this stage. There is still a great deal to do.”
- “I think we’ve gotten over the initial struggles with the other e-industries. We’ve gotten over the euphoria and now we’re down to slugging it out to see how we make this technology both cost- and learning-effective. We’re over the hyper growth, a shakedown and into the emergence of the serious players.”
- “e-learning will be much more ubiquitous in the sense that students will continue to attend face-to-face classes, but almost all of their face-to-face stuff will have an e-learning resource component, so that they’ll be able to interact with their classmates and with their teachers outside of that classroom, which they’re already doing.”
- “Most of the hype has now disappeared, and people have returned to a sense of reality in that they recognize that where we’re at today is past the irrational exuberance of the late 1990s around e-learning.”

THE REALITIES SNAPSHOT

WHAT ARE THE MYTHS IN E-LEARNING TODAY?

Like any new advancement, there are inevitable myths about it.

For example, take the myth surrounding e-commerce - if you listened to certain commentators and futurists in the later part of the 1990's, today we would all have wired refrigerators in our homes that would automatically order groceries for us and we would be buying everything on-line. As we all know, that did not happen as we continue to make our regular trips to the grocery store and other retail outlets, which are in fact expanding in most jurisdictions and not contracting, as many would have suggested.

There were similar myths in the field of e-learning that our expert participants identified during their extensive interviews, including:

1. e-learning will *save* money!
2. e-learning is a *replacement* for classroom teaching and that the traditional university would disappear.
3. e-learning is inherently *superior* or inherently *inferior* to other alternatives.
4. Anyone can go on-line and be successful in an on-line course with *no training*.
5. e-learning is *one* kind of delivery mode.
6. e-learning is not a *profit-generating* venture and those who tried to use it as a profit venture have failed.
7. e-learning *replaces* teachers.

8. e-learning is *impersonal*.

9. Distance education will *disappear*.

Almost all of the expert participants cite the first two myths in their interviews and elaborate a great deal on the myths from the perspective of their particular organizations.

Some of the interesting quotes in this field include:

- “The big myth that we are tackling at the moment is this: Does e-learning, in fact, replace teachers?”
- “One of the myths is the notion that e-learning is something that just sort of ‘happens’ to you. I think it is something that you seize and direct. This future is in our hands.”
- “One myth is the belief that ‘pure’ e-learning is insufficient in its own right to achieve quality outcomes. That’s a myth that was promoted by people in institutions who tried e-learning without much of an experiential base and not much focus on pedagogy, resulting in poor outcomes.”
- “One of the myths that has evolved was that distance education would disappear. It was just a passing fad, a trend. Now I think that e-learning is building on many of the experiences of distance education.”
- “One myth is that e-learning was somehow going to supplant traditional classroom learning. There’s never been any technology that I know of - educational technology - that has in some way supplanted the basic model that we have.”
- “The big myth is that e-learning is one kind of delivery.”

- “ One of the myths...is that e-learning will save money. If you look at what colleges and universities are actually spending, it is a myth. e-learning doesn't save money.”
- “One myth is that e-learning is impersonal. It does not have to be impersonal.”
- “In the case of e-learning, we are often not talking about hard costs in terms of actually demonstrating savings to budgets. We are talking about soft costs vis-à-vis cost avoidance.”

THE MYTH SNAPSHOT

WHAT ARE THE CHALLENGES IN E-LEARNING TODAY?

The interviews with our expert participants reveal a broad range of challenges across a variety of fields including structural challenges, infrastructure support, pedagogical issues, training for faculty, platforms, copyright issues, learning object repositories, and technical support.

In reviewing the challenges, we note that some of the challenges also present significant opportunities for the future of e-learning, which will be discussed in the next section.

The identified challenges (in no particular order) include:

1. Recognition of courses or credits between institutions.
2. Structural changes within the current education environment that will support e-learning. Most institutions and funding agencies are still based on traditional delivery models and do not take into account the fact that the e-learning model has different needs.
3. The concept of change management within educational institutions. These institutions were built on a traditional delivery model and it takes tremendous time and effort to re-orient these models for a different delivery model.
4. The impression on the part of some people, and in particular legislators and policy makers, of what is good education and what is not. This lack of knowledge can stall the advancement of e-learning.
5. Funding support for education in general.

6. e-learning can be complex for learners - we haven't reached the point of making e-learning *simple* for learners to access and effectively use.
7. Cultural issues given that e-learning has the potential to be international in flavour.
8. Academic engagement.
9. Affordable and high speed access to the Internet.
10. Software platforms are becoming increasingly expensive and many institutions are developing their own platforms.
11. Faculty training in the use of the technology, how to teach and how to develop good e-learning materials.
12. Understanding the many ways that people learn.
13. The generational disconnect between what teachers understand and can do with technology and what kids can do with technology.
14. Technological infrastructure to support e-learning within the educational institutions i.e., a laptop for every student, Internet access, etc.
15. The lack of available content in French.
16. Credentialing - are students getting a quality education?

17. The ownership and development of content including the following issues:
 - i. The development and easy access to quality learning objects.
 - ii. Due to copyright restrictions, it is becoming increasingly difficult to put content online.
 - iii. The view that learning activity is more important than the content.
18. The lack, in Canada, of a national education policy.
19. The technology is not as reliable and not as simple as it could be for the learner.

Here is a sampling of the thoughts of a number of the expert participants:

- ☛ “There is still the matter of credentialing. Are the students getting a quality education? And what does quality mean in this environment? The whole accreditation process for e-learning is just in its very early stages.”
- ☛ “Although, we still think that the key challenge before us is teaching people how to teach with technology, the real challenge for e-learning is to try and find a way to incorporate an understanding about how people learn, and then how to use the technology to make that possible.”
- ☛ “Another thing which just has to happen is the technology has to become much more reliable and much easier to use.”
- ☛ “The important issue is to help the traditional professor or trainer in the private sector to evolve towards diversification of roles.”

- "Canada should commit itself to providing all of the content needed to create an education - kindergarten to a degree - all of that content freely available online for all of the people of the world. It takes us out of the era where the basic necessities of an education were something that were unattainable for people and puts us into the era where an education is something that may be freely obtained by any person in the world."
- "Bandwidth is an issue. Battery life is probably a bigger issue. Fuel cell technology becomes really interesting."
- "When I think about the content, I think that content is the wrong thing to talk about because it lets you slip into a view of the world where I'll just give students these things to read and they'll just learn. I think the more important aspect is the learning activity itself, right?"
- "There continues to be a couple of challenges in particular in Canada. One is the availability of French content. The other is that, from a learner's point of view, not everything is effectively delivered from a web-based perspective. It is not a panacea - we need to be clear that it is a very useful enabler and a tool, but it is not the only solution and nor should we think of it that way."
- "At the policy level, whatever the government can do to enhance competition or infrastructure that will make affordable access to the Internet more readily available is a big contribution. The digital divide is a genuine issue both within developed countries and in developing countries, though obviously more severe in the latter."
- "The huge challenge is academic engagement."
- "One obstacle within the education sector is our refusal [in Canada] to have a national education policy, and at the provincial level, our refusal to have a post-secondary education policy."

- “The biggest obstacle that I typically see is very much the human side of the equation. One of the other issues may be around change management. This is a huge issue. We are asking people and our staff to do things differently, to learn new ways of working as well as using technology.”
- “One of the major barriers obviously is funding support. The funding - that we’ve experienced, at least - is usually attached to many conditions, such as consortiums. People sometimes get together for financial reasons instead of for the obvious: a common vision and common goals.”
- “There needs to be continuity and linkage between what we do in one environment, an academic environment, and what we do in a corporate training environment, continuing education environment, and retraining.”

THE CHALLENGES SNAPSHOT

WHAT ARE THE OPPORTUNITIES IN E-LEARNING TODAY?

As an evolving application, e-learning presents a host of opportunities to expand access to education for learners around the world, to use technology to effectively teach students and to accommodate their individual learning needs.

Our expert participants identified the following opportunities:

1. One of the most striking opportunities identified by the expert participants is the opportunity to conduct more extensive research in the learning field. A *research* agenda should be pursued that includes the following specific topics:
 - i. To learn more about the ways distance education or e-learning is as effective as face-to-face instruction.
 - ii. To examine the problems that particular instructional technologies poses.
 - iii. To clearly understand the strengths and weaknesses as information and communication technology is brought into learning processes.
 - iv. To understand what kind of technologies really enhances learning.
 - v. To develop flexible and usable methodologies as an instructor's role is being differentiated into many roles.
 - vi. To research and create more flexible tools and platforms to support tutoring.
 - vii. To develop more flexible and powerful search engines.
 - viii. To understand how technology can be effectively leveraged to enable more cost effective instructional methodologies.

- ix. To understand how we support different learning styles and different personality styles in a learning environment.
 - x. To learn more about interaction, how much human interaction we build into e-learning from the beginning and how to support it.
 - xi. To understand what types of learning experiences produce good learning outcomes.
 - xii. To discover what the appropriate blend of different methodologies and delivery techniques will best serve learners.
 - xiii. To truly understand where e-learning fits into our educational and training systems.
 - xiv. To discover more about the sense of readiness in learners to learn.
2. There is an opportunity to develop greater *partnerships* between various institutions, government and the private sector to further enhance e-learning. Technology providers have a unique vantage point of working with a significant number of customers across various sectors and understand what works and doesn't work.
 3. Canada has an opportunity to become a world leader in the field of *learning objects*, intelligent search engines and intelligent databases.
 4. Opportunities exist to enhance the *multilingual* aspects of e-learning and reach even more learners worldwide.
 5. *Standards* present an excellent opportunity for the e-learning community to evolve further and benefit learners and instructors.

6. Without invading a learner's privacy, opportunities exist to track more aspects of the e-learning experience - time on-line, time spent on particular aspects, etc. - that will allow us to make the *experience* better. This is something that is not available in the traditional learning environment.
7. *Technology* presents an opportunity for the good professor/instructor to become a great professor/instructor.
8. The development of 'digital communities of practise' is an opportunity for instructors to *learn* from one another no matter where they are.
9. Opportunities exist to *overcome*, through the development of software, inadequate connectivity by allowing learners to connect, download their courses, complete the work and then re-connect.
10. Technology companies and institutions have an opportunity to work more closely *together* to do joint research and development to best meet everyone's needs.
11. The development of an *electronic digital library* affords an opportunity to share more resources and promote collaboration amongst institutions.
12. Institutions have an opportunity to *collaborate* to a greater degree and not re-invent the wheel on a regular basis.
13. There is a great opportunity to support learners with *disabilities* through the use of technology.
14. e-learning presents an opportunity to increase the *interaction* between learners and instructors.
15. *Students* have an opportunity to drive the e-learning process.

16. The incredible opportunity that exists when providers of learning make a shift from providing content to providing very tailored, customized learning *services*.
17. e-learning presents significant opportunities for *professional* development within the corporate world and to significantly reduce corporate training and development costs while increasing overall skills levels.
18. There is an opportunity for *governments* to play a critical role in advancing e-learning including:
 - i. An opportunity to develop a national education policy and a national education governance body in Canada.
 - ii. To ensure that e-learning is not regarded as a business proposal but rather as a learning and education proposal.
 - iii. To make certain that a national infrastructure is in place to support e-learning and the motivation to share between provinces.
 - iv. To advance the question of accreditation in Canada in order to ensure that Canadian institutions can compete on an international basis.
 - v. To take the necessary steps to secure an adequate level of funding for learning in Canada.

Here is a sampling of some of the specific thoughts from our expert participants on the opportunities:

- ☛ "There is a real need for partnership."
- ☛ "We need search mechanisms - we need a 'Google' for e-learning."

- “One of the things that e-learning is doing, which is probably very positive, is that it’s raising the expectations for interaction since most of the students taking e-learning are also attending classes on campus. One of the very positive benefits may be that students will demand more interaction in their classrooms.”
- “One of the major barriers that Canada faces in this area is that we don’t have an educational governance body at a national level. While there are many reasons why this was so for traditional teaching and traditional education, there are huge motivators within e-learning to have some national body that coordinates and sets out policies and strategies for implementing e-learning.”
- “There’s going to be a huge growth in demand for continuing professional development in the information age. The only viable way to meet the demand is through e-learning.”
- “Students are also driving the e-learning process. That’s the kind of bottom up pressure that I think is most legitimate. That’s where the change is coming from by and large. That’s where the change should come from.”
- “From what I see throughout the world, Canada has the opportunity to take a lead in the area of learning objects.”
- “It is a huge area for potential growth. If we understand that the providers of learning and the market are shifting from the provision of content to the provision of services and, specifically, to the provision of very tailored, very customized services, we have a huge economic opportunity here.”
- “One of the levers of change that institutions and governments have at their disposal is funding. They can provide incentive for change through funding opportunities and not just through projects, but also in the way in which an institution reforms the way it is using its existing funding or some investments to help them change to a new form of funding.”

- "A lot of e-learning has to do with creating that sense of readiness within the learner. I think content is one piece of it. Access is another piece of it. Technology enables that access. Learner readiness is a huge factor. We need to research that more."
- "WWW is a handy acronym for our approach. There's a whole network of possibilities out there and our philosophy is to give people what they Want, Where they want it, When they want it."
- "Given the diversity of delivery possibilities in e-learning today, one of the most important research questions is how can we map learning styles of individuals to given content and adjust delivery techniques used dynamically to the individual."
- "I actually think there's quite a bit of opportunity to do joint research, to do joint development, and I think we as technology companies who touch across multiple academic institutions have the ability to see different innovative activities going on and we have a responsibility to start helping be part of the dissemination channel for those innovations."
- "Next generation e-learning will include a robust semantic web with knowledge management systems the aim of which will be to manage this explosion of data; automated web systems that encompass learning, research and knowledge management."
- "A lot of research should revolve around interaction, because interaction is so pedagogically important and because it's so cost-dependent, the biggest factor in your courses: how much human interaction you're building in from the beginning, and how are you going to support it?"

THE OPPORTUNITIES SNAPSHOT

THE FUTURE OF E-LEARNING

In developing the snapshot of the current realities, myths, challenges and opportunities, the expert participants provide a glimpse at what e-learning will look like as we move into the future.

Some of the specific thoughts on the future of e-learning include:

1. The strong view, held by many of the expert participants, that the 'e' will disappear and we will focus on how technology can enhance learning.
2. e-learning will take us to new heights in providing access to educational opportunities and creating learning environments that work for everyone.
3. e-learning is an enabler to find new ways of getting students to interact with each other or getting students to interact with the material.
4. A view that standards and an open architecture are critical to the future of e-learning.
5. Content will be freely available to those who want to use it.
6. The thought that there will be far more automation of routine tasks within the learning process of the future.
7. The focus for the future will be on learning activity rather than the content.
8. Simulation technologies will be used to a far greater degree in the learning process.
9. e-learning will be used extensively throughout the corporate world to reach employees wherever they are which will result in increases in productivity.

10. Corporations, governments, and educational institutions will develop partnerships to a far greater degree than ever before to advance learning.

Here is a sampling of some of the specific thoughts from our expert participants on the future of e-learning:

- "We have to take the 'e' out of e-learning and make it just learning."
- "e-learning will be much more ubiquitous in the sense that students will continue to attend face-to-face classes, but almost all of their face-to-face stuff will have an e-learning resource component, so that they'll be able to interact with their classmates and with their teachers outside of that classroom, more than they're already doing."
- "Canada should commit itself to providing all of the content needed to create an education - kindergarten to a degree - all of that content freely available online for all of the people of the world. It takes us out of the era where the basic necessities of an education were something that were unattainable for people and puts us into the era where an education is something that may be freely obtained by any person in the world."
- "In The Fifth Generation, I promote the vision that students will ultimately be able to be taught by a reusable learning objects database incorporating automated response systems working in conjunction with a virtual cohort of students. The cost-effectiveness of this model will lead to its inexorable rollout."
- "Talking about content is the wrong way to proceed. That lets you slip into a view of the world where the instructor says, 'I'll just give students these materials to read and they'll learn.'" The more important aspect is the learning activity itself, the entire learning activity."

- “For the full benefit of e-learning to be realized robust standards and open architecture must be rigorously pursued. Excellence must not be permitted to flounder on the shoals of competitive proprietary architectures.”
- “I can have the world's greatest learning object for teaching fractions to seventh graders, and I can make that learning object available and easily discoverable. And I could have all the metadata that tells me everything about it. I can have sample lesson plans. But really the thing that will get another teacher to adopt that learning object is being able to interact with somebody, discuss those best practices - what did work, what didn't work - and so I view that in order to make learning objects really reusable that effectively what you'll start seeing is the formation of discipline specific communities of practice with some pieces of learning objects or content being the centre of gravity of those communities of practice.”
- “Bell realized significant cost savings in 2002 with our aggressive push of using e-learning with its 45,000 employees, but not only cost savings, we certainly see a high correlation to productivity.”
- “The goal is not to have e-learning. The goal is to address learning needs of individuals, groups, disciplines and subjects, and to find the best possible way to do that. So in that sense, e-learning is part of a long-term evolution of learning and learning technologies as approaches to learning.”
- “We'll know that we have made significant progress when the issue of whether there is still an initial 'e' in e-learning...It should cease to be an issue in 10 years.”
- “e-learning or the engagement in learning online will become integrated with the other more traditional forms of learning.”

- “The best is yet to come. The best that is yet to come will come about because of a convergence of some serious rethinking of how to best produce learning. The technology will become a whole lot less clunky than it is right now. We’re in the early stages”
- “My vision of the future of e-learning is that we will drop the ‘e’ because, in one form or another, all learning will use some electronic technology.”
- “e-learning will become part of every learning experience.”
- “The critical enabler for future success and development of e-learning will be our collective ability to pool resources and funding to consolidate as buyers, corporations and as higher educational institutions.”
- “There are a lot of ways in which e-learning can take you to a place that nothing else can. We should be looking at the weird and wonderful things it can do and not using it to teach what is perfectly well taught through a book. We should use it to explore new ways of getting students to interact with each other or getting students to interact with the material.”

THE CONCLUSION

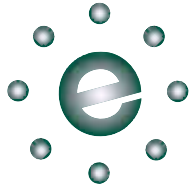
Based on the interviews and opinions of some sixteen Ontario, Canadian and international experts in the field of e-learning, we offer the following preliminary snapshot of e-learning today:

The concept of e-learning has evolved from the dot.com hype of the late 1990's into a steadily maturing field that is expanding the use of information and communication technology in conjunction with effective 'traditional' learning precepts to present a powerful option for learners and instructors. e-learning is helping to transform learning, at least learning methods and designs, from a place, person, content and time bound process to one that is truly ubiquitous, continuous, interactive and engaging.

As the e-learning industry continues to develop, we have dispelled many of the myths of the late 1990's and placed e-learning on a more realistic footing. It is not a panacea yet it can be transformational. It is not about 'e'lectronics, it is about learning enhanced by, through and across a variety of media. Just as movies are not recordings of live theatre, e-learning is not a digital manifestation of live classrooms. It is an extension, an enhancement, a transformation of learning processes.

As with all growing developments, e-learning faces a number of challenges that it must overcome to be truly relevant. Through a significant emphasis on research, problem solving, change management and implementation, an abundance of opportunities present themselves to further enhance learning experiences for students at all levels and to provide access to educational and training opportunities.

In producing this preliminary snapshot, a quotation from one of our expert participants comes to mind instantly, "e-learning will be part of every learning experience" and learning will be the better for it.



Contact North/*Contact Nord*
ROUNDTABLE
ON
e-Learning

Contact North/*Contact Nord* Roundtable on e-Learning
The Future of e-Learning *realities, myths, challenges and opportunities*
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