Technological Literacy: An Emerging Language That Shapes Our Lives

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When was the last time you 'Googled', surfed the Net, bought an item from an on-line store, entered a blog or a chat area, installed a 160 gigabyte hard drive in your machine, increased the bandwidth from your ISP, thought about a VoIP telephone connection and/or wrote some HTML code? Chances are that many adults have become intimidated with the rapidly increasing terms and words used to describe technological aids.

Increasingly complex computer based technology has increased the size of our word list. Yet despite the new literacy, computer hardware is still doing the same job as it has always done and with the same binary digit (0's and 1's) simplicity. The Central Processing Unit (CPU) or Units in some of the newer hardware, controls the input, processing and output, as it has always done, directing and controlling the flow and functions within the computer. CPU's have undergone many changes and are more powerful and faster, able to accommodate multiple tasking activities. An ever increasing array of software enables users to solve complex tasks more quickly. Some simulate authentic life situations with seemingly little effort. Speech recognition has and will become more commonplace and reliable. New technologies will create opportunities for users to make homes and vehicles more attuned to our individual needs and demands through commands that enable sophisticated diagnos-

tics, analysis and correction possibilities, modifying their own functions and system requirements and possibly even the hardware. Options and technological add-ons will multiply exponentially; so too will the language and literacy required to stay abreast of the technology.

If CPU, URL or USB challenges your technological speak-ease consider, PDA, MP3, DVR or GPS. Consider parallel or firewire interfaces, platforms, shared memory, WLAN, DVD/CD/RW drives and Ethernets, UNIX & Linux OS, upload-download, hibernate, migrate, recovery, cookies, virus scans, Java applets, User Authentication, FTP, terminal server, ActiveX, Binary and script behaviours, partition, firewall, client certificate selection, nonencrypted form data, Flash, and SpyWare utilities.

Most of the terms above were not even in someone's imagination 10 years ago. Now they are commonplace. If these descriptors are not part of your everyday vocabulary, turn to any adolescent, pre-teen or younger child for meaning and direction.

Teachers it seems have little reluctance in asking students for assistance with computer literacy. Teachers have long recognized that unlike students they do not have the opportunity to spend unlimited, dedicated time on task to learning the skills and language associated with technology. And unlike children, teachers have other responsibilities that often conflict with the learning curve

required to acquire the skills necessary to navigate a computer or manipulate a program with ease. Even when teachers do allocate time to sit at the computer, most do not have the luxury of 'free' learning time so are most likely relegated to clearing electronic mail or writing a page or two or attending to work related tasks. Few teachers that I know spend time studying how to read and write to a CD, scan a document, install a security package or simply play a game. Some find time to search the Web for a valuable resource but often that becomes limited to just a few of the initial 'hits' rather than exploring several of the hundreds of alternatives.

Even though educators may not have as much time as their students to explore the technology, teachers continue to gain expertise and experience by using programs such as Reader Rabbit, Geometer's Sketchpad, the Electronic Report Card, Curriculum Unit Planner and various word processing and spreadsheet applications. Long gone are the days when teachers could decide whether or not they wanted to try a computer program. Today's classroom teacher understands that using computers to complete everyday career and home tasks is an imperative. Teachers strive to search for the very best methods to deliver learning material and it is well documented that computers do make a difference to learning and, there is no doubt that they act as a 'magnet' for our students.

More and more programs are now available to help deliver subject material and remediate or enrich students' skills. The Ontario Ministry of Education has licensed programs for use in schools that enrich subjects like mathematics, science, language arts, music, history, health stud-

ies, social studies, and geography. These pieces of software have been designed carefully by pedagogical experts to enhance students' educational experiences.

Teachers understand that we must experiment with any innovative method including the technology in order to give our students opportunities to expedite the acquisition of knowledge. Therefore, classroom teachers must continue to embrace technology by learning and developing new skills and methods that will assist them to present lesson material. The current star in educational technology is the World Wide Web. It has proven to be an excellent source of information and resources for teaching and learning. It is, as Mitchell et al (2001) write, "a marvellous communication tool for interacting with others for educational purposes".

Educators world wide have contributed to numerous World Wide Web-based sites that provide opportunities for teachers to build a fantastic resource base for their teaching strengths and that challenge and engage students (Windschitl, 1998). Web Quests have become one of the latest strategies that educators both design and use to help students navigate the Internet. A good site to begin an exploration with WEB QUEST is by logging on to one of the pioneers of this notion, Bernie Dodge at http://edweb.sdsu.edu/courses/edtec596/about_webquests.html

Literature that supports web-based technologies as a "can and do" make a difference in how teaching and learning are achieved, has been growing (Harasim et al., 1995). Research shows that by experimenting and working with programs the use and potential use of web-based

delivery technologies can increase opportunities to cultivate unique forms of teaching and learning different from the traditional classroom experience. Teachers and students will learn to adopt new perspectives and different responsibilities through a more student-directed approach. The use of computers in learning promotes constructivist models of learning to flourish as a consequence and function in concert with web technologies (Coley et al., 1997).

A variety of time saving strategies can be employed to increase computer literacy, functionality, enjoyment, and teacher productivity.

1. We all understand how apprehensive we are if we are engaged in a conversation where the language or terms are foreign to us (e.g. Daly, 1991; Gay, 1993). This leads to a further understanding of the language associated with the technology. Learn the language of the technology and try to become comfortable with the terminology as the need arises. That is, it is likely unwise to attempt to learn many new terms at one sitting, especially out of context. Become familiar with the terms when you need to understand their meaning. It is known that once people become more literate with the jargon they will also feel more comfortable talking about and interacting with others to extend their own knowledge.
2. Use Information Technology when appropriate but do not force it into lessons or presentations. If the use of computers and other information technology will enhance lesson preparation and/or delivery, then implement it. If

you try to make IT work for all situations, you will only end up being frustrated with the technology.

3. Stretch the application to a variety of subject matter. For example, we all have used a word processor to write a letter, some notes or a lesson plan. However, there are so many functions on word processors today that go untouched. Try having your students use the word processor to create a class or school newspaper. If you have many students but few computers, students can work in groups on the few computers to create various sections of the paper; a group of three could be designing and creating the class news while another group is working on the sports section. This type of activity, from researching the roles of all the people involved in a newspaper to visiting a local newspaper to actually writing, editing, illustrating and publishing can easily become a complete unit. Just imagine all of the possibilities for integration across subject areas.
4. Examine software that has been licensed for educational use. For example, in Ontario, the Ontario Ministry of Education has established the Ontario Software Acquisition Advisory Committee (OSAPAC) to acquire licensing agreements with software companies. A full list of the up-to-date software that has been licensed can be viewed at the OSAPAC site: <http://www.osapac.org/>
The software, licensing agreement details, resources and even the curriculum expectations that may be ac-

- commodated are also available on this web site.
5. Contact colleagues and experts who are effectively using the technology in classrooms. Get ideas from them about the language of computers to build your literacy and ask them how to enhance lesson material and delivery methods. Get together with these colleagues and others to brainstorm ideas and determine way of collaborating to effectively augment your teaching strategies.
 6. Be creative with your presentations and the material that you will be presenting. Start by learning the in and outs of the presentation software that is available. For example, once you become familiar with the language associated with programs like Corel Presentations or MS PowerPoint you will find that there is a crossover in terminology with other program packages.
 7. Attend professional development and conference opportunities. It is doubtful that we can learn all that we should know in isolation. The people who have developed PD sessions have a good working knowledge of the programs, the language associated with the programs and also have developed pedagogical expertise with the programs. Even short workshops on that are designed around specific programs with a narrow focus on grade level or subject material are worthwhile. The resources that have been created will certainly be worth the time when you implement them with your own students.
 8. Schedule some time each day to explore new features. For example, every teacher should understand the practicality of mail merges and be able to implement this powerful function to help them with regular contact with the parents and guardians of their students. You may find that the mail merge function makes your life easier when communicating the room number, time and some topics that you would like to discuss on the night of parent/teacher interviews. This is merely one example of one function of a program. The many unexplored functions of programs that we use everyday and the software that has been designed for educational purposes certainly deserves exploration and consideration for classroom application.
 9. When you assign computer time to your students, define the expectations that you want your students to accomplish. Design activities that will guide the students to the end goals of the expectations as you would for any learning that you have devised for your students. Be careful to use terms that are correct for the activity and the software so that the literacy of the students also advances. It is not difficult to devise activities that make the time with the computer a meaningful learning experience and not merely a 'chance to play some games'.
 10. Check lesson plans and units that are available from web sites to find plans that are suitable to the subject and grade level. There are many web sites that are dedicated to teachers with wonderful tips and even freeware or

shareware that might help make your teaching experience more rewarding. For example, do you have a good crossword creator or word search maker in your arsenal?

Please check

http://www.teach-nology.com/web_tools/crossword/

as an example. You can find web versions of these, download software that is freeware or shareware, or visit your local software vendor. Also, be sure to visit web sites like the Ontario Curriculum Unit Planner at <http://www.ocup.org/> or The Educator's Reference Desk at

<http://www.eduref.org/>.

For a more complete listing, please check my reference and lesson plan web site at

<http://www.ed.brocku.ca/~jkerr/ref.html>

and

<http://www.ed.brocku.ca/~jkerr/soft.html>

Teachers know and understand that these are exciting times in their careers in which the opportunities to learn new skills and expand their students' and their own literacy are numerous. Experimentation with contemporary language, unique methodologies, distinctive approaches and creativity can facilitate techniques helpful to educators as they find ways to augment instructional strategies and expedite educational experiences of our most valuable resource – *our children!*

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Language and Literacy Researchers in Canada (LLRC) www.csse.ca/CACS/LLRC

is an association housed within the Canadian Association for Curriculum Studies (CACS) and is a constituent of Canadian society for the Study of Education (CSSE). It is dedicated to promoting research and discussion within a broadly defined understanding of literacy within but not exclusive to the Canadian context. It is accepted that literacy is situational and that individuals generally acquire

numerous literacies as they navigate different linguistic spheres and encounter rich perspectives across a range of developmental, socio-cultural, and media contexts. **Individuals interested in this group or the one day conference proceeding CSSE, May 27, 2005, U.W.O. London, Ontario** should contact JulieAnn Kniskern, President at kniskern@brandonu.ca

Cozy Reading

Cozy Reading is a community partnership in Halton Region that helps promote a love of books and develops literacy skills in young children. The Cozy Reading program has significant benefit to children who have had little experience being read to and for children with speech and language difficulties.

The program is currently available to schools throughout Halton

Region with Junior and Senior Kindergarten (JK/SK) programs. Volunteers read to JK & SK students in small groups (2-3 children) for approximately 20 minutes per session.

Partners in the program are: Oakville Parent-Child Centre/Ontario Early Years Centre as Lead Organization, Burlington Family Resource Centre/Ontario Early Years Centre, Milton Community Resource Centre/Ontario

Wendy Butt

Early Years Centre-North Halton, Early Literacy Consultant-Halton, Halton Catholic District School Board and Halton District School Board.

For more information about this program or volunteering please contact Wendy Butt, Cozy Reading Coordinator at 905-825-4011 or cozyreading@bellnet.ca or www.cozyreading.ca.

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