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In this issue...

Committed to the mission of enhancing teaching and learning

EDITOR'S MESSAGE

How successful are we in teaching the Information Generation in Manitoba?

According to Don Tapscott, (1998) "The lecture, text-book, homework assignment, and school are all analogies for the broadcast media- one way, centralized, and with emphasis on predefined structures that will work best for the mass audience." Today, teaching methods and even many computer-based instruction programs are largely based on the broadcast view of learning. The teacher is mainly a transmitter." Does this describe Manitoba schools today?

While computer technology (CT) is rapidly becoming an almost universal presence in education many questions persist about its value. Throughout the early and mid nineties some technology enthusiasts touted that CT would bring about systemic school reform, that by using and programming computers students' thinking and problem-solving skills would improve, and that wider use of the Internet would help remedy inequities in education and the list goes on.

After a decade of research, it is clear that these grand claims have not been achieved. Computers themselves do not automatically change the nature of teaching and learning, develop students' thinking and problem-solving skills or level the playing field for all students. While there is reason to be optimistic about the use of CT in education, it is becoming more evident that computers alone cannot reform education or change the way students learn. In this issue we have assembled a number of articles which address some of the criticisms that have been leveled against the use of CT in education, examine the needs expressed by educators and look at solutions and new directions.

The article by Jim Dalton combines current theories of learning, brain research and learning styles to articulate a metaphor, "technology is the ignition to drive learning". The article lays the foundation for understanding how CT can support teaching and learning.

In order to get a glimpse of what is actually happening in two Winnipeg high schools today, read the article by Barb Waselewski, Irene Nordheim and Patti Field. They explain a program, which connects high school students and seniors. In a related article David Harkness and Kevin Gordon, two high school students involved in the program express their point of view.

On the other hand we must also address the serious criticisms leveled at the way in which CT is used in education. The article by Otto Toews acknowledges these shortcomings which have been thoroughly researched in **the child and the machine.** Toews explains a well-researched educationally sound CT application, which he designed to improve students' writing using thinking and writing strategies and on-line tutors in the Internet environment.

The article by Robert Cross addresses CT in Manitoba schools by analyzing a survey he designed and conducted to determine the needs and opportunities of Information Technology in the K-12 school system. He discusses the needs, issues, barriers, and opportunities that exist in the implementation of information and communication technologies. It is interesting to note that many of the criticisms leveled at the use of CT are addressed in this article. Cross concludes that School and Division web sites bedesigned to support teaching and learning in the classroom. "That is, an online learning community environment that is curriculum based..." needs to be developed.

In the article titled "The Classroom and Virtual Schooling," Roy Schellenberg suggests that virtual schooling may well bring very significant change to the education landscape. However it will require an implementation strategy that includes district and intra-district level co-operation.

The article by Debra Parker explains the Curriculum Navigator: an Information Technology integration resource and planning tool for Manitoba teachers. The Curriculum Navigator supports the integration of information technology with core curricula by providing educators with flexible, integrated, instructional and assessment strategies that help students to achieve curricular outcomes.

Research is an essential component for the implemen-

tation of CT. The research report by Beverley Zakaluk explains an intervention designed to support at risk readers in grade one to engage in multi-media authoring by creating their own talking books. Her hypothesis was that when young students talk, draw, then write, they come to understand how written language works. While the hypothesis was notconfirmed the researchers learned about the complexities of integrating technology into literacy instruction. For example teachers need more technical support and they need to develop awareness that computers can be powerful tools for developing literacy skills.

Teacher librarians play an important role in implementing CT in schools. The article by Michelle Larose-Kuzenko explains how one elementary school extended and enhanced their research reports using multi-media authoring tools. The products were shared with other classes for instructional purposes.

There is good reason to be optimistic about CT in Manitoba Schools. Do we have enough hardware and software, technical support, teacher in-service training, and curriculum materials? NO! And we never will. What we have are knowledgeable educators who believe that computers are powerful, supportive, and flexible tools that can be used to create electronic learning communities. We have teachers willing to take up the complex challenge of integrating CT into Manitoba curricula.

Reference

Tapscott, Don, (1998). Growing Up Digital: The Rise of the Net Generation: Toronto, Ontario: McGraw-Hill, (p. 129)