

## TECHOLOGIES IN EDUCATION: HOW TO FULFILL THE PROMISE

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### **Abstract**

Educational Technologies have, over the past 20 years, held out the promise of dramatic changes and improvements in classrooms around the world, but, until now, few schools have made a deep commitment to making these changes.

All other major components of society, including business and industry, the medical professions, government and the military, have long ago passed the point of debating whether and how technology can be used in their field. It is only in education where, for the past two decades, much more has been *written about*, than *done with*, technology.

Innovative projects around the globe have demonstrated that computer technology, including telecommunications and multimedia, especially in combination on the WWW, have the capacity to transform classroom learning from a closed didactic system to an open, exploratory and collaborative experience. Telecommunications and multimedia can provide opportunities to authentically accomplish the hands-on, collaborative, inquiry-based learning that are essential to systemic reform in education. With these tools educators can assist students to communicate ideas to peers, and to the larger community, rather than produce work for the eyes of their instructors only.

This panel, representing two nations, will briefly share experiences in using new technologies to enhance school learning. Then we will engage the audience in exploring how educators can overcome some of the barriers that are preventing the full use of technology to transform education, as it has forever changed many other institutions of our society.

We will discuss how we can overcome issues preventing progress in technology integration, such as:

- The fact that many educators, when they chose a career in teaching, never expected to need to become experts in the use of technology;
- The implementation and support of a technology-rich educational environment calls for expertise beyond that which can be expected from current teaching and staff positions;
- The need to incorporate and operationalize new knowledge about the brain, cognitive development, and the importance of early learning;
- Fully realizing the potentials of technology within schools requires systemic changes in how schools are defined and organized.