

# Ideas on the Edge

## Putting On a New Game Face

REAL-TIME ANIMATION TECHNOLOGY FROM THE SHERIDAN INSTITUTE ADDS A NEW INTERACTIVE DIMENSION TO TELEVISION.

If there's one thing better than watching an animated character on TV, it's being that character. And new technology developed at the Sheridan Institute of Technology and Applied Learning will soon make it possible.

Using advanced real-time animation tools and interactive cable television technology, viewers will be able to participate as animated characters in television shows, their voices controlling the characters' lip movements and basic facial expressions. But interactive real-time animation is only one part of the package. Many more viewers will be able to take part by pressing buttons to express their views or vote on outcomes. "We can have a hundred thousand people participating," explains Professor Avrim Katzman, the Sheridan Institute researcher who is spearheading the project.

One of the earliest applications

*"WE CAN HAVE A HUNDRED THOUSAND PEOPLE PARTICIPATING."*



## “We married our expertise.”

The new animation and broadcast technology from Sheridan was developed in conjunction with a private partner, Brampton’s E-TV Interactive Technologies. “We partnered based on our respective strengths,” explains Dr. Katzman. “They had more experience in cable television and programming for set-top boxes. Our strength was in animation and real-time gaming. We simply married our expertise in these two areas.” The partnership has produced a new spin-off enterprise—iPlayMedia—that will market the technology. Interest is already being expressed from potential customers as far away as England.

will likely be the production of television game shows in which a handful of home viewers play animated contestants. A much larger home audience will provide feedback on their performance, through cable set-top box, via the Web, or with text messaging. The first game show is already in development, in partnership with a Toronto production company. Game producers in England have also expressed an interest.

As the technology matures,

Professor Katzman also sees application of the game show model to interactive distance education. “The host becomes the instructor, with the students as the participants. On the back end, we can retain statistics about responses, so the education process isn’t just one-way. We can measure results.” The

interactive aspect of the technology also suggests intriguing possibilities for collaborative work environments and even participatory democracy. While internet-based teleconferencing schemes are limited in the number of participants, the tools developed at Sheridan use

cable television to expand reach and participation to thousands of viewers. One example of a potential civic

application: use television interaction to present concepts and build consensus around large urban development projects.

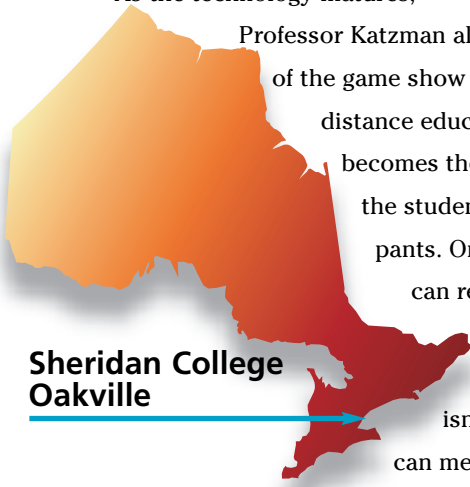
The technology is the product of Sheridan’s Visual Design Institute, where Professor Katzman and a team of colleagues are working on a variety of new media applications. The Institute’s sophisticated computer facilities were funded in

part by an investment from the Ontario Innovation Trust. The equipment represents not only an investment in Sheridan, but also an investment in the province’s economic future. The kind of research that can put a new game face on television also helps Ontario present a high-tech face to the world. And a global reputation for innovation in advanced communications will help draw investment and fuel growth. “This new technology will be used internationally,” says Professor Katzman, “and that will keep and create jobs in Ontario.”

**Project:** Interactive Visualization Environment Lab  
**Institution:** Sheridan Institute of Technology and Applied Learning  
**Research Discipline:** Natural Sciences/Applied Mathematics  
**Principal Investigator:** Avrim Katzman  
**Trust Investment:** \$700,000  
**CFI Investment:** \$700,000  
**Total research investment from all sources:** \$2,069,720

**RESEARCH THAT MATTERS**  
REAL-WORLD BENEFITS FOR ONTARIANS:

- new tools for education and decision-making
- new entertainment options
- jobs and prosperity in the future through technological leadership in the global entertainment, information and communication sectors



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## Infrastructure for Innovation About the Ontario Innovation Trust

The Ontario Innovation Trust was created in 1999 by the Government of Ontario to invest in research equipment and facilities at Ontario’s universities, colleges, hospitals and other non-profit research institutions. The Trust is governed by a volunteer Board of Directors, according to the terms of a Trust agreement established by the Ontario government. A small permanent staff looks after day-to-day operations.

Since its inception, the Trust has committed almost \$843 million to strengthen Ontario’s position in the global marketplace of ideas. This represents more than a third of the \$2.44 billion in total funding that has been invested in Trust-supported projects.