

Steve Karpik

★★★
Exhibit
Experience
Development
★★★

- ▶ Exhibit development
- ▶ Software development
- ▶ Web application development
- ▶ Project management
- ▶ Computer-Human Interaction



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StopMotion Animation Station

Ontario Science Centre - 2006

Ready. Set. Animate! This exhibit encourages visitor creativity and innovation by challenging them to make an animation using basic craft materials. Using a simple interface, the visitor can build a video frame-by-frame and then save the production for online sharing and download. A huge hit with Science Centre visitors, the experience has resulted in thousands of animations being created by participants of all ages and was at the forefront of participatory multimedia exhibit development.

Credits:

- Application architect
- Software developer

Tools:

- C#, ActionScript 3, Flash, SQL



Learn more about this exhibit!
Watch the video [here](#).

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Fish Music

Ontario Science Centre - 2006

Make beautiful music with the fish! Visitors interactively create an ambient soundscape in collaboration with a tank of fish. Fish swimming through their tank trigger the playback of electronic music samples. Humans follow suit and by moving within the exhibit space trigger similar music samples, creating a collaborative improvisation between species. The resulting tranquil soundscapes have been described by delighted visitors as both moving and Zen-like.

Credits:

- Technical lead
- Project manager
- Software developer

Tools:

- Flash, ActionScript 2



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Face Time

Ontario Science Centre - 2012

Create a video mash-up of your face! Using an intuitive touch table interface, this exhibit allows visitors to explore issues related to their identity by dragging video clips of other people's face features onto their own faces. If you have a new nose, is it still you? A new mouth? New eyes? What if you add facial features from someone of a considerably different age, gender or ethnicity? And what kind of identity do you have if you have a mouth in the middle of your forehead? This exhibit is Mr. Potato Head for the digital age.

Credits:

- Concept originator
- Technical lead
- Project manager
- Software developer

Tools:

- C#, Flex, TCP/IP sockets, XML messaging



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Word Harp

Ontario Science Centre - 2006

Expect the unexpected! Imagine a harp with no strings, but with sensors and light beams that mimic the real thing. Also imagine “plucking” the light beams and instead of hearing music, seeing poetry. The Word Harp provides visitors with a synesthetic experience where one sensory mode is coupled to another totally unexpected one. The poetry that is generated is completely random, and – like the cut-ups of William Burroughs and other beat artists – is nonetheless laden with meaning.

Credits:

- Technical lead
- Project manager
- Software developer

Tools:

- Flash, ActionScript 2, MDM Zinc, Rabbit microcontroller C



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Hot Zone Presentation Space

Ontario Science Centre - 2005

A Times Square for science! Like Times Square in New York City, the Hot Zone at the Ontario Science Centre is the main intersection and hub of the building. On the walls, on the floors, in the air are images, sounds and sights that convey the energy of current science. What's big that's happening right now? The Mars landing? The Higgs boson particle? You'll find it all in the Hot Zone. The main stage and several multi-media enabled presentation areas are abuzz with current trends, controversies and issues in science and technology.

Credits:

- Software architect
- Technical lead

Tools:

- C#, MS SQL, Python



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Are You Different?

Ontario Science Centre - 1999

How unique are you? A large part of what makes us who we are is our genetics. Humans have 23 pairs of chromosomes which define us genetically. By answering a short series of questions – like can you roll your tongue? – the visitor learns just how similar or different they are in a genetic sense from all the visitors who have used the exhibit before them. Are you a genetic one-of-a-kind? This exhibit lets you find the answer.

Credits:

- Software developer

Tools:

- Macromedia Authorware

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The Amazing Aging Machine

Ontario Science Centre - 2000

Watch yourself age right before your eyes! Using technology developed by Core Digital, this exhibit lets you peak into your future. What will you look like when you age? What will your child look like when they are 80? The exhibit produces images at ten-year intervals up to the age of 80, with an emotional impact that is always delightful and occasionally disturbing. Visitors are provided with a password that allows them to download their aged images from the OSC website.

Credits:

- Concept originator
- Technical lead
- Project manager

Tools:

- Adobe/Macromedia Director, MS SQL, ASP .NET, C#



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Garbage Sorting

Ontario Science Centre - 2010

Reduce. Reuse. Recycle! Ever wonder what happens to your blue bin contents once they get to the recycling depot? How do they separate out your cat food tins from your egg cartons from unrecyclable pet fur? Someone actually has to stand in front of a conveyor belt and sort through all the stuff you put in your blue bin – and that takes a lot of work. In this exhibit, we encourage people to reduce and reuse as well as recycle. A touch table simulates the actual sights and sounds of a City of Toronto conveyor belt and puts you in the shoes of a garbage sorter.

Credits:

- Concept originator
- Technical lead
- Project manager

Tools:

- Adobe/Macromedia Director



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StrangeMatterExhibit.com

Ontario Science Centre - 2004

What's materials science? You could call it the study of stuff! Just about everything you use every day – the shoes you wear, the dishes you eat from, the CDs you listen to, the bike or skateboard you ride – it's all made of different kinds of stuff. This award-winning website aimed at children explores how that stuff is put together, how it can be used, how it can be changed and made better to do more amazing things – even creating completely new kinds of stuff: that's what materials science is all about.

Credits:

- Project manager
- Team lead

Tools:

- HTML, CSS 2, Flash



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Biathlon

Ontario Science Centre - 2009

Be an Olympian! The OSC celebrated the Vancouver Winter Olympics with a biathlon exhibit – cycling and shooting with laser rifles – where visitors learned about the science behind the winter sport. The bicycles powered whimsical figurines around a ski course and once completed, the competitors – with hearts still racing – shot Olympic-style laser rifles at an array of five targets. Time penalties were assigned for missed shots, real-time results were displayed for all to see, and a champion was declared at the end of each race.

Credits:

- Technical lead
- Application architect
- Senior software developer

Tools

- Flash, ActionScript 3, C#, TCP/IP sockets, XML messaging, Rabbit Microcontroller C, PLCs



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