

#### Canadarm

Canada's most famous robotic achievement, the Canadarm was developed by Spar Aerospace and the National Research Council of Canada. Over the years it has lifted a variety of payloads in NASA's space shuttle program.

## Electron Microscope

Postgraduate students working in the Physics Department of the University of Toronto, James Hillier and Arthur Prebus developed the first ever high-resolution electron microscope for use in all types of specimens. Biological research has not been the same since.

# JAVA

XML

e int getHetght James Gosling, another Canadian, developed the Java programming language used worldwide return netght in a variety of applications from publishing to advertising to animation.

# ublic char getA char answer



Extensible Markup Language (XML) is touted by many to be the next revolution in the World Wide Web. XML was co-developed as a standard to structure information by a Canadian, Tim Bray.

#### ARCHIE

Canadians have played an important part in the evolution of the World Wide Web. ARCHIE, the world's first Internet search engine, was developed in 1990 by Alan Emtage, Bill Heelan, and Peter Deutsch in Montréal. ARCHIE was designed to query selected FTP archives on a regular basis—a type of web-crawling still used by today's Internet search engines.



#### **Key Frame Animation**

Canadian scientists, Nestor Burtnyk and Marcelli Wein, eliminated the need for animation artists to draw each and every frame. Their invention revolutionized the animation industry. With clusters in Montréal, Vancouver, and many other cities across the country, Canada has one of the largest pools of talent in the animation and gaming industries in the world.

#### **G**-suit



The first G-suit was developed by a team led by Dr. Wilbur Franks at the University of Toronto's Banting and Best Institute in 1941. Franks' G-suit used water-filled bladders around the legs and were used in World War II. Today, G-suits are worn by aviators and astronauts around the world.

### IMAX

The next time you really want to see a movie on the 'big' screen, Think Canada's IMAX theatres. Developed in 1967 by four Canadians—Graeme Ferguson, Roman Kroitor, Robert Kerr, and William C. Shaw—IMAX Corporation has since become the world's leading-edge film and digital imaging technology company, playing films in more than 280 theatres across 40 countries.

#### **Black Holes Exist!**

While the existence of black holes is common knowledge today, Canadian astronomer, Dr. C.T. Bolton was the first to provide the observational proof that black holes exist. In 1972, Bolton's research on Cygnus X-1 as a black hole spawned a whole new discipline of knowledge in astrophysics.

ρ

d