

SPECIAL FEATURE

Computing Research that Changed the World: Reflections and Perspectives

March 25, 2009 | 8:45 am - 5:00 pm | Members Room, Thomas Jefferson Building, Library of Congress

[Slides by Session](#)
[Demonstrations](#)

Introductory Session

Ed Lazowska

(UNIVERSITY OF WASHINGTON)



*Introduction:
Changing the World*

[One Page Summary](#)
[Slides - 992 KB](#)
[YouTube Video \(19:41\)](#)
[Video Download - 181 MB](#)
[Bio](#)

This invitation-only symposium, "Computing Research that Changed the World: Reflections and Perspectives," was organized by **Computing Community Consortium** in collaboration with **Congressman Bart Gordon (D-TN)**, **Congressman Ralph Hall (R-TX)**, **Congressman Daniel Lipinski (D-IL)**, **Congressman Vern Ehlers (R-MI)**, **Congressman Rush Holt (D-NJ)** and **Sen. Jay Rockefeller (D-WV)**. It was held at the Library of Congress on March 25, 2009.

The overall message of the symposium was that computing research has made game-changing advances in the last two decades, from which we can extract lessons for structuring future programs to sustain that track record.

The symposium featured four sessions: "**The Internet and the World Wide Web**," "**Evolving Foundations**," "**The Transformation of the Sciences via Computation**," and "**Computing Everywhere!**". Each session consisted of three talks and a short discussion that identified future challenges. These four sessions were followed by a discussion among all the speakers, with input from attendees, which framed a call-to-action for the future.

The Internet and the World Wide Web

Alfred Spector

(GOOGLE)

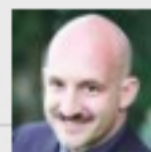


Why We're Able to Google

[One Page Summary](#)
[Slides - 1.1 MB](#)
[YouTube Video \(19:41\)](#)
[Video Download - 181 MB](#)
[Bio](#)

Eric Brewer

(UC, BERKELEY)



*The Magic of the "Cloud":
Supercomputers for Everybody,
Everywhere*

[One Page Summary](#)
[Slides - 2.9 MB](#)
[YouTube Video \(17:36\)](#)
[Video Download - 227 MB](#)
[Bio](#)

Luis von Ahn

(CARNEGIE MELLON)



Human Computation

[One Page Summary](#)
[Slides - 1 MB](#)
[YouTube Video \(11:50\)](#)
[Video Download - 168 MB](#)
[Bio](#)

Evolving Foundations

Barbara Liskov

(MIT)



*Security of Online
Information*

[One Page Summary](#)
[Slides - 208 KB](#)
[YouTube Video \(19:26\)](#)
[Video Download - 256 MB](#)
[Bio](#)

Daphne Koller

(STANFORD)

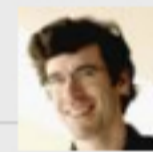


*Learning to Improve Our
Lives*

[One Page Summary](#)
[Slides - 4.7 MB](#)
[YouTube Video \(17:34\)](#)
[Video Download - 256 MB](#)
[Bio](#)

Jon Kleinberg

(CORNELL)



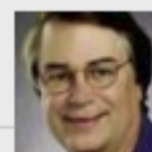
*Global Information
Networks*

[One Page Summary](#)
[Slides - 768 KB](#)
[YouTube Video \(20:11\)](#)
[Video Download - 340 MB](#)
[Bio](#)

The Transformation of the Sciences via Computation

Larry Smarr

(UC, SAN DIEGO)



*Supercomputers and
Supernetworks are Transforming
Research*

[One Page Summary](#)
[Slides - 1.5 MB](#)
[YouTube Video \(14:38\)](#)
[Video Download - 258 MB](#)
[Bio](#)

Chris Johnson

(UNIVERSITY OF UTAH)



*Computing and
Visualizing the Future of Medicine*

[One Page Summary](#)
[Slides - 3.3 MB](#)
[YouTube Video \(16:03\)](#)
[Video Download - 261 MB](#)
[Bio](#)

Gene Myers

(HHMI, JFRC)



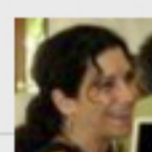
Zooming In On Life

[One Page Summary](#)
[Slides - 3.5 MB](#)
[YouTube Video \(18:09\)](#)
[Video Download - 267 MB](#)
[Bio](#)

Computing Everywhere!

Deborah Estrin

(UC, LOS ANGELES)



Sensing Everywhere!

[One Page Summary](#)
[Slides - 2.5 MB](#)
[YouTube Video \(18:23\)](#)
[Video Download - 287 MB](#)
[Bio](#)

Pat Hanrahan

(STANFORD)



Pixels Everywhere!

[One Page Summary](#)
[Slides - 2 MB](#)
[YouTube Video \(22:06\)](#)
[Video Download - 391 MB](#)
[Bio](#)

Rodney Brooks

(HEARTLAND ROBOTICS)



Robots Everywhere!

[One Page Summary](#)
[Slides - 2.1 MB](#)
[YouTube Video \(17:39\)](#)
[Video Download - 280 MB](#)
[Bio](#)