

Accelerating Change

Physical Space, Virtual Space, and Interface

Stanford University
Palo Alto, California
November 5 - 7

2004
CONFERENCE

- Accelerating interconnectivity of the physical world
- Increasing accuracy of the simulated world
- Growing intelligence of the human-machine interface



The Conference

Dear Change-Aware Professional:

Accelerating Change 2004, the only gathering of its type in the world, offers a unique opportunity to learn from leading thinkers in the science, technology, business, and humanism areas of accelerating change.

AC2004 delivers three main benefits: a community of thoughtful attendees, foresight into coming events, and strategies for navigating the future. The conference provides guidance for understanding and using the unprecedented changes now occurring and soon to occur in computation-driven technologies, and for choosing intelligent paths through the thicket of information, options, and technological innovation.

Today, every technology-dependent executive and organizational leader is a *de facto* futurist. Certain types of change are so rapid and disruptive that only the most foresighted are ready for what comes. At the same time, many new technologies are overhyped, overinvested, and underdesigned. Efficiently driving change today requires a pragmatic innovator's attitude, a philosophy of lifelong learning, and a desire to network with a multidisciplinary community of insightful renaissance thinkers.

Intelligent strategic thinking begins with a commitment to support communities like AC2004. I cordially invite you to join us at Stanford this November.

Respectfully,



John Smart
President, ISAC

The Institute

The Institute for the Study of Accelerating Change (ISAC) is a 501(c)(3) nonprofit corporation. ISAC exists to further research, education, consulting, and selective advocacy of communities and technologies of accelerating change. We explore accelerating developments in special domains of science and technology, and their potential impact on business and society. We recognize that humanity's central choice in technology development is not a blind advocacy of acceleration, but a selective catalysis. Discovering which technologies have the greatest potential benefit in each environmental context, and selectively advancing those in a culturally sensitive manner, while regulating and delaying detrimental technologies, is the essence of modern individual and social choice.



Physical Space Keynote 1
Helen Greiner
Co-Founder and Chairman of the Board, iRobot



Virtual Space Keynote 1
Will Wright
Co-Founder, Maxis
Creator, *The Sims*



Interface Keynote 1
Richard Marks
Special Projects Manager,
Research and Development,
Sony Computer Ent. America



AC2004 Emcee
Sonia Arrison
Director of Technology Studies,
Pacific Research Institute (PRI)



Change Leader
David Brin
Physicist, Science Fiction and
Non-Fiction Author,
The Transparent Society



Change Leader
Lada Adamic
Research Scientist,
HP Labs



Physical Space Keynote 2
Shai Agassi
Executive Board Member, SAP



Virtual Space Keynote 2
Cory Ondrejka
VP of Product Development,
Linden Lab, creators of
Second Life



Interface Keynote 2
Doug Engelbart
Digital Interface Legend,
Father of the Mouse,
Founder, Bootstrap Institute



AC2004 Emcee
Melanie Swan
Research Director of Telecom
Economics, RHK;
CIO, Cygnit Capital



Change Leader
Peter Thiel
Co-Founder/Former CEO,
PayPal;
President, Clarium Capital



Change Leader
Gee Rittenhouse
VP of Wireless Research,
Lucent Technologies

There should be a periodic conference of different types of people to think about ... some means by which we can make the best of both worlds. The best of the purely human world, and the best of this extraordinary, wonderful, and terrifying world of [technological] technique.

Aldous Huxley (1959)

Theme Speakers



Physical Space
 Jim Spohrer
 Director, Almaden Services
 Research, IBM Almaden



Physical Space
 Dave Hall
 Chief Scientist, Digital Auto
 Drive (DARPA Grand
 Challenge)



Physical Space
 Andreas Olligschlaeger
 President, TruNorth Data
 Systems



Physical Space
 Cynthia Breazeale
 Innovation Center & Strategic
 Programs Manager, Intel



Physical Space
 Peter Graf
 Senior VP of Marketing &
 Collaborative Solutions, SAP



Physical Space
 Dana Blankenhorn
 Technology Business Journalist
 and Consultant; Author, *The
 Blankenhorn Effect: How to Put
 Moore's Law to Work for You*



Physical Space
 John Smart
 President, Institute for the
 Study of Accelerating
 Change



Virtual Space
 Dan Gillmor
 Business and Technology
 Columnist, San Jose Mercury
 News; Author, *We, the Media*



Virtual Space
 Gordon Bell
 Project Director,
 MyLifeBits, Microsoft
 BARC



Virtual Space
 Clark Aldrich
 Co-Founder, SimuLearn
 Lead Designer, *Virtual Leader*;
 Author, *Simulation and the
 Future of Learning*



Virtual Space
 Keith Halper
 CEO and Co-Founder, Kuma
 Reality Games



Virtual Space
 Nova Barlow
 Online Community
 Developer, Themis Group



Virtual Space
 Jaron Lanier (tentative)
 Founder, VPL Research
 Visiting Scientist, Silicon
 Graphics; Computer Scientist,
 Composer, Artist



Virtual Space
 Brock Pierce
 CEO, Internet Gaming
 Entertainment (IGE)



Virtual Space
 Milton Chen
 CTO, VSee Lab



Virtual Space
 Robert Gehorsam
 CEO, Forterra Systems;
 Formerly VP of Strategic
 Initiatives, There, Inc.



Interface
 Peter Norvig
 Director of Search Quality,
 Google



Interface
 Ross Mayfield
 CEO, Socialtext



Interface
 BJ Fogg
 Director of Research and
 Design, Persuasive
 Technology Lab, Stanford U;
 Author,
Persuasive Technology



Interface
 Bruce Francis
 Distinguished Senior Faculty
 and Former Chancellor,
 Capella University



Interface
 John Mauldin
 President, Millenium
 Wave Advisors; Author,
Bull's Eye Investing



Interface
 Tim Sibley
 Chief Scientist, StreamSage



Interface
 Wlodek Zadrozny
 Technologist, IBM
 Research



Interface
 Jerry Paffendorf
 Director, Institute for the Study
 of Accelerating Change



Sponsorship Opportunities

Lead Sponsor	SOLD
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Luncheon Sponsor	\$2,000
Bronze Sponsor	\$1,000
Contributor	\$500

For information on sponsorship benefits, visit
accelerating.org/ac2004/sponsorship.html

Innovation occurs for many reasons including greed, ambition, conviction, happenstance, acts of nature, mistakes, and desperation. But one force above all seems to facilitate the process. The easier it is to communicate, the faster change happens.

James Burke

Conference Themes

Our distinguished AC2004 speakers are chosen to emphasize a balanced mix of data-guided **Analysis**, informed **Forecasting**, and **Action** plans and examples, emphasizing multidisciplinary inquiry and a broad synthesis of **Scientific**, **Technological**, **Business**, and **Humanist** dialogs.

This year's theme, **Physical Space, Virtual Space, and Interface**, analyzes the intersection of three monumental trends:

- Accelerating interconnectivity of the physical world
- Increasing accuracy of the simulated world
- Growing intelligence of the human-machine interface.

Each of these alone is powerfully impacting society today. Together, they paint a truly transformative picture of the future. Subjects to be discussed may include:

Physical Space (tangible things and networks)

- Connectivity/Internet/Network Immunity/Security
- GPS/Location-Based Services/RFID/Sensing/Telematics
- Handhelds/Wearable and Portable Computing/Transparency
- IT Outsourcing/Offshoring/Globalization
- Robotics/AI/Automation/Instant Manufacturing
- VOIP/Bandwidth/Streaming
- Wireless/Cellular/Software Defined Radio

Virtual Space (simulations and virtual life)

- Avatars/Artificial Life
- CGI/Visual FX
- Gaming/MMORPGs/Virtual Training/Edutainment
- GIS/World Mapping/Augmented Reality
- Persistent Worlds/Virtual Economies
- Web Services/User-Created Content

Interface (data mgmt systems and convergence)

- Databases/Data Mining/Storage/Knowledge Management
- Email/eBooks/Blogs/Lifelogs
- Enterprise Software/CRM/Digital Nervous Systems
- Micropayments/DRM/Video On Demand
- Search/NLP/LUI/Semantic Web
- Social Software/Groupware
- Persuasive Computing/User Modeling/Prosody/Personality Capture
- Investing for Accelerating Change/Social Challenges

Attendee Benefits

- ▶ 36 leading thinkers on the topic of accelerating change
- ▶ 350 change-aware attendees, many selectively invited (see accelerating.org/changeleaders.html)
- ▶ Two days and nights of networking with some of the top minds in the world.
- ▶ Six keynotes, three themes, three debates, and numerous breakout and Q&A sessions
- ▶ Conference Handbook and Proceedings
- ▶ DVD conference record at production cost
- ▶ Networking events, including the CI Dinner and Futuristically Incorrect
- ▶ Exhibits including Virtual Worlds demo and Tech Night
- ▶ Presenters' and Conference Bookstore

Two billion years ago our ancestors were microbes; a half-billion years ago, fish; a hundred million years ago, something like mice; ten million years ago, arboreal apes; and a million years ago, proto-humans puzzling out the taming of fire. Our evolutionary lineage is marked by mastery of change. In our time, the pace is quickening.

Carl Sagan

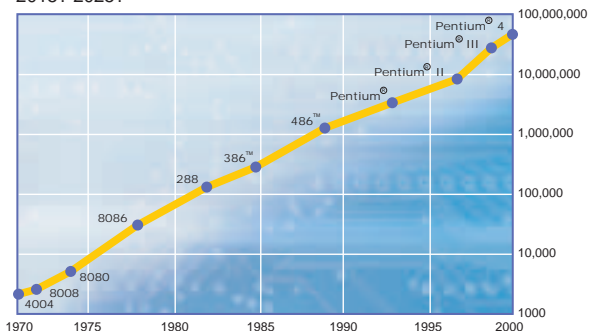
When the rate of change on the outside exceeds the rate of change on the inside, the end [of a business] is near.

Jack Welch

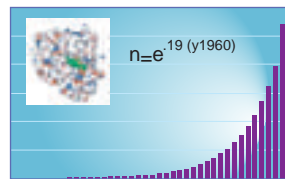
How Does Computation Affect Our Environment?

Moore's Law

In 1964, **Gordon Moore** of Intel noted that CMOS transistor density doubles reliably every 18-24 months. In 1999, **Ray Kurzweil** noted this doubling trend has held for at least 110 years. What will this enable in 2015? 2025?



Dickerson's Law



In 1977, **Richard Dickerson**, a professor of physical chemistry at Cal Tech, noted that solved protein crystal structures had risen from one in 1961 to 23. He published a simple exponential formula which predicted that by March 2001, scientists would have solved 3-D structures for more than 12,000 proteins. He was only 57 short of the actual number. What other non-obvious physical processes are Moore's law dependent?

Smith's Law



Alvy Ray Smith, Microsoft graphics guru and co-founder of Pixar has said, "Reality begins at 80 million polygons per second." **Joi Ito** notes *Toy Story* had 5-6 million polygons per frame. *Toy Story 2* had twice that. Our best digital faces today have 100 motion control points. The actual Reality Transition may be 800 million polygons per frame and thousands of control points. We are rapidly approaching this threshold. What then?

Conference Schedule

Friday November 5 SAP Labs, Palo Alto

Evening Reception and Tech Night Demos

No-Host Dinners in Palo Alto

Saturday November 6 Tresidder Union, Stanford

Introduction - John Smart, President, Institute for the Study of Accelerating Change

Keynote 1 - Physical Space

Helen Greiner, Co-Founder and Chairman, iRobot - *Mobile Robots - Saving Time, Money, and Lives*

Keynote 2 - Physical Space

Shai Agassi, Executive Board, SAP - *Accelerating your Business Vision: Acquisitions, Partnerships, and Enterprise Portals*

Breakouts - Physical Space

David Brin - *Singularity Without Self-Destruction*

Jim Spohrer - *Co-Evolution of Tech-Business Innovations*

Breakouts - Physical Space

Gee Rittenhouse - *Strategic Look at Wireless and Networks*

Dave and Bruce Hall - *Auto Robotic Vision: State of the Art*

Breakout Panels - Physical Space

Thomas Odenwald - *Realtime Collaboration and RFID*

Dana Blankenhorn - *Making Moore's Law Work For You*

Andreas Olligschlaeger - *Advanced IT & Security Systems*

Cynthia Breazeale - *Innovation and Knowledge Management*

Peter Graf - *Managing Innovation Across the Network*

Gary Hamel (tentative) - *Innovation and Resiliency*

Debate - Physical Space

David Brin and Brad Templeton - *The Cost and Benefit of Transparency: How Far, How Fast, How Fair?*

Keynote 1 - Virtual Space

Cory Ondrejka, VP of Product Dev, Linden Lab - *Living the Dream: Business, Community and Innovation at the Dawn of Digital Worlds*

Breakouts - Virtual Space

Keith Halper - *Reality Games: The Next Revolution*

Gordon Bell - *MyLifeBits: The Memex Vision and Implications*

Breakouts - Virtual Space

Clark Aldrich - *Simulation and the Future of Learning*

Dan Gillmor - *We, The Media: Journalism By and For the People*

Breakout Panels - Virtual Space

Milton Chen - *Videoconferencing and Education: State of the Art*

Bruce Francis - *Distance Learning: The Future of Education*

Jaron Lanier (tentative) - *McLuhan's Ramp*

Robert Gehorsam - *Earth: A Persistent World Simulation*

Nova Barlow - *The Art of Community Management*

Brock Pierce - *Virtual Currency Markets*

Collective Intelligence Dinner and Futuristically Incorrect!

Night-owl Session

Jerry Paffendorf and John Smart - *Simulation, Agents, and Accelerating Change: Personality Capture and the Linguistic User Interface*

Sunday November 7

Keynote 2 - Virtual Space

Will Wright, Co-Founder, Maxis; Creator, *The Sims* - *Games as Prosthetics for the Imagination*

Debate - Virtual Space

Brock Pierce and Jack Emmert - *Real Money in Virtual Economies: The Future of User-Created Content*

Keynote 1 - Interface

Doug Engelbart, Digital Interface Legend; Founder, Bootstrap Institute - *Global Collective IQ: Envisioning the Coming Interface*

Keynote 2 - Interface

Richard Marks, Special Projects Manager, R&D, Sony Computer Entertainment America - *You are Player One: Reinventing User Interfaces*

Breakouts - Interface

Peter Thiel - *Virtual Money, Privacy, and Democracy*

John Mauldin - *Bull's Eye Investing: Thriving in a Secular Bear Market*

Breakouts - Interface

Peter Norvig - *Web Search as a Force For Good*

BJ Fogg - *Persuasive Technology: Computers, Thought, and Behavior*

Breakout Panels - Interface

Tim Sibley - *Advanced Computational Linguistics: State of the Art*

Wlodek Zadrozny - *NLP and Intangible Asset Valuation*

Speaker 3, TBD

Lada Adamic - *Structure and Dynamics of Blogspace*

Ross Mayfield - *Enterprising Social Software: Wikis and Weblogs*

Speaker 3, TBD

Debate - Interface

(Panel TBD), *Finding Humanity in Machine Interfaces: Capability Atrophy or Augmentation?*

Closing Remarks

Registration

Express Registration at:
www.accelerating.org

Payment

Registration may be done by check, PayPal, or credit card. Please make checks payable to **ISAC**, enclose the registration form, and send to the following address:

Mail: ISAC
2227 Amirante
San Pedro, CA 90732-4104
Phone: (310) 831-4191
Fax: (310) 732-2285
Email: mail@accelerating.org

PayPal payment requires creating a PayPal account, a simple, quick, and secure process. To pay by PayPal, please access accelerating.org/ac2004/registration.html.

Confirmation and Cancellation

All registrants will receive an email acknowledging enrollment. Approximately one month prior to AC2004, attendees will receive a confirmation letter with further details regarding conference program and directions. Registration refunds can only be made upon receipt of a written request, dated no later than October 8, 2004. Refunds will be subject to a \$75 admin fee.

Special Needs

Registrants with special needs should notify the organizers at least one month in advance. Please contact **(310) 831-4191** or mail@accelerating.org.

Hotel and Motel Accommodations

The AC2004 hotel is the **Sheraton Palo Alto**, (Phone: (650) 328-2800; Fax: (650) 327-7362) AAA 3 diamond rated. At the entrance to Stanford University, a short walk south of University Avenue in downtown Palo Alto. Mention AC2004 by October 22 to receive the special \$99 room rate. Paid shuttle service is available from the hotel to Stanford's Tresidder Union, or a pleasant ten minute walk through Stanford from the hotel.

The AC2004 motel is the **Super 8 Motel**, (Phone: (650) 493-9085; Fax: (650) 493-8405) a five minute drive from Stanford University. Pool, cable, refrigerator, and continental breakfast are provided. Mention AC2004 for the special \$58 single/\$78 double room rate.

Name (Mr./Ms./Dr.)

Email Address

Website

Address

City, State, ZIP

Phone

Organizational Affiliation (for your badge)

Position/Title

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Authorized Signature

Credit Card Billing Address IF DIFFERENT

City, State, ZIP

Registration Rates: (check one)

	Price:
<input type="checkbox"/> Early Bird Rate (deadline September 30, 2004)	\$350.00
<input type="checkbox"/> Regular Rate	\$450.00
<input type="checkbox"/> Regular Student Rate*	\$150.00
<input type="checkbox"/> Door Rate	\$550.00
<input type="checkbox"/> Virtual Attendance Rate**	\$150.00

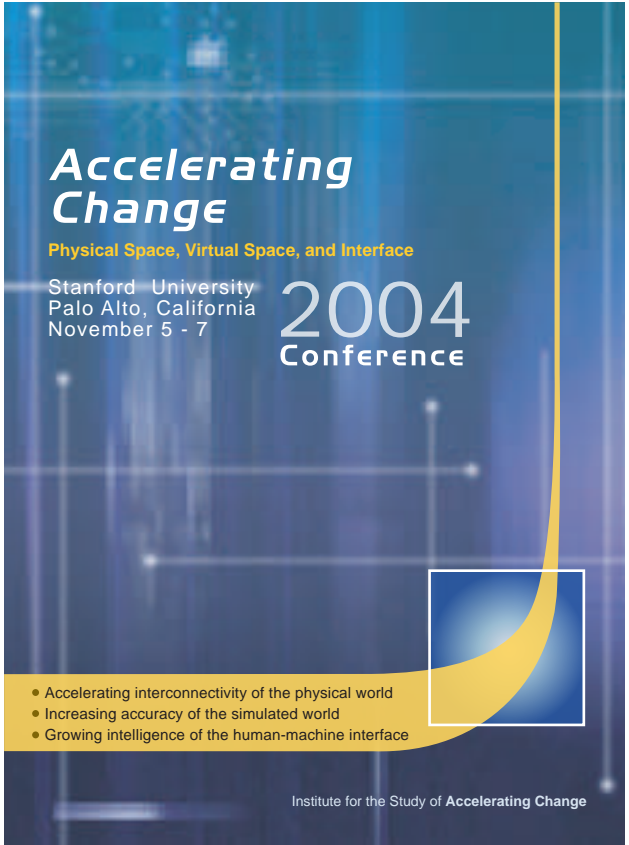
* To receive the student rate, please fax a copy of your current university student ID with your conference registration form to **(310) 732-2285**, or the regular conference rate will apply. Only 40 student spaces available.

** Virtual Attendance Rate includes conference DVDs, text proceedings, and Web content, excluding some demo and networking sessions.

Do you wish to be listed or anonymous in the AC2004 Attendee Roster? Listed Anonymous
Would you like a free subscription to our newsletter, *Accelerating Times*? Yes No

Accelerating Change 2004
November 5 - 7 (Friday - Sunday)
Tresidder Union at Stanford University

Conference Hours:
Friday 5 PM - 8:00 PM
Saturday 8:30 AM - 10 PM
Sunday 8:30 AM - 5:30 PM



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