



Andrew Bernat
Executive Director
abernat@cra.org

Arizona State University - CSE
 Auburn University - CSSE
 Ball State University - CS
 Boston College - CS
 Boston University - CS
 Bowdoin College - CS
 Bowling Green State University - CS
 Bradley University - CS
 Brandeis University - CS
 Brigham Young University - CS
 Brown University - CS
 Bryn Mawr College - MCS
 Bucknell University - CS
 California Institute of Technology - CS
 California Polytechnic State University - CS
 California State University, Chico - CS
 Carnegie Mellon University - CS
 Case Western Reserve University - EECS
 City University of New York, Graduate Center - CS
 Clemson University - CS
 Colgate University - CS
 College of William & Mary - CS
 Colorado School of Mines - MCS
 Colorado State University - CS
 Columbia University - CS
 Cornell University - CS
 Cornell University - ECE
 Dalhousie University - CS
 Dartmouth College - CS
 DePaul University - CS
 Drexel University - CS
 Drexel University - IST
 Duke University - CS
 Emory University - MCS
 Florida Atlantic University - CSE
 Florida Institute of Technology - CS
 Florida International University - CS
 Florida State University - CS
 Florida State University - IS
 George Mason University - CS
 George Washington University - CS
 Georgia Institute of Technology - CSE
 Georgia Southern University - IT
 Georgia State University - CIS
 Georgia State University - CS
 Grinnell College - MCS
 Harvard University - CS
 Harvey Mudd College - CS
 Hofstra University - CS
 Illinois Institute of Technology - CS
 Illinois State University - ACS
 Indiana University - CS
 Indiana University - I
 Iowa State University - CS
 Iowa State University - ECE
 Johns Hopkins University - CS
 Johns Hopkins University - SI
 Juniata College - IT & CS
 Kansas State University - CIS
 Kent State University - CS
 Lafayette College - CS
 Lehigh University - CSE
 Long Island University - ICS
 Louisiana State University - CS
 Loyola University, Chicago - CS
 Massachusetts Institute of Technology - EECS
 Miami University - CS
 McMaster University - CE&S
 Michigan State University - CSE
 Michigan Technological University - CS
 Mississippi State University - CS
 Montana State University - CS
 Montclair State University - CS
 National University of Singapore - CS/IS

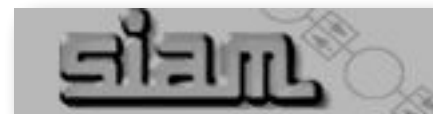
Naval Postgraduate School - CS
 New Jersey Institute of Technology - CCS
 New Mexico State University - CS
 New York University - CS
 North Carolina State University - CS
 Northeastern University - CIS
 Northwestern University - ECE
 Nova Southeastern University - CS
 Oakland University - CSE
 Ohio State University - CSE
 Ohio University - EECS
 Oklahoma State University - CS
 Old Dominion University - CS
 Oregon Health & Science University - CSE
 Oregon State University - EECS
 Pace University - CSIS
 Pennsylvania State University - CSE
 Pennsylvania State University - IST
 Polytechnic University - CIS
 Pomona College - MCS
 Portland State University - CS
 Princeton University - CS
 Purdue University - CS
 Purdue University - ECE
 Rensselaer Polytechnic Institute - CS
 Rice University - CS
 Rochester Institute of Technology - CS
 Roosevelt University - CS&T
 Rutgers University, Busch Campus - CS
 Saint Louis University - MCS
 Santa Clara University - CE
 Simon Fraser University - CS
 Singapore Management University - IS
 Southern Illinois University, Carbondale - CS
 Southern Methodist University - CSE
 Southern Polytechnic State University - CSE
 Stanford University - CS
 State University of New York, Albany - CS
 State University of New York, Binghamton - CS
 State University of New York, Stony Brook - CS
 Stevens Institute of Technology - CS
 Swarthmore College - CS
 Syracuse University - IS
 Temple University - CIS
 Texas A&M University - CS
 Texas State University - CS
 Toyota Technological Institute at Chicago - CS
 Tufts University - CS
 Tulane University - EECS
 Union College - CS
 University at Buffalo - CSE
 University at Buffalo - IS
 University of Alabama, Birmingham - CIS
 University of Alabama, Tuscaloosa - CS
 University of Alberta - CS
 University of Arizona - CS
 University of Arkansas - CSCE
 University of Arkansas at Little Rock - I
 University of Calgary - CS
 University of California, Berkeley - EECS
 University of California, Berkeley - IMS
 University of California, Davis - CS
 University of California, Irvine - ICS
 University of California, Los Angeles - CS
 University of California, Riverside - CSE
 University of California, San Diego - CSE
 University of California, Santa Barbara - CS
 University of California, Santa Cruz - CE
 University of California, Santa Cruz - CS
 University of Central Florida - CS
 University of Chicago - CS
 University of Cincinnati - EECS
 University of Colorado, Boulder - CS
 University of Delaware - CIS

University of Denver - CS
 University of Florida - CISE
 University of Georgia - CS
 University of Hawaii - ICS
 University of Houston - CS
 University of Houston - ECE
 University of Idaho - CS
 University of Illinois, Chicago - CS
 University of Illinois, Urbana Champaign - CS
 University of Illinois, Urbana Champaign - ECE
 University of Iowa - CS
 University of Kansas - EECS
 University of Kentucky - CS
 University of Louisiana at Lafayette - CACS
 University of Louisville - CECS
 University of Maine - CS
 University of Maryland - CS
 University of Maryland, Baltimore Co - CSEE
 University of Maryland, Baltimore Co - IS
 University of Massachusetts, Amherst - CS
 University of Massachusetts, Boston - CS
 University of Michigan - EECS
 University of Michigan - I
 University of Michigan, Dearborn - CIS
 University of Minnesota - CSE
 University of Minnesota, Duluth - CS
 University of Mississippi - CIS
 University of Missouri, Columbia - CS
 University of Missouri, Rolla - CS
 University of Montana - CS
 University of Montreal - CS
 University of Nebraska at Omaha - CS/IST
 University of Nebraska, Lincoln - CSE
 University of Nevada, Las Vegas - CS
 University of Nevada, Reno - CSE
 University of New Brunswick - CS
 University of New Hampshire - CS
 University of New Mexico - CS
 University of New Mexico - ECE
 University of North Carolina at Chapel Hill - CS
 University of North Carolina at Chapel Hill - SILS
 University of North Carolina, Charlotte - IT
 University of North Dakota - CS
 University of North Texas - CS
 University of Notre Dame - CSE
 University of Oklahoma - CS
 University of Oregon - CIS
 University of Pennsylvania - CIS
 University of Pittsburgh - CS
 University of Pittsburgh - IS
 University of Puget Sound - MCS
 University of Rochester - CS
 University of South Alabama - CIS
 University of South Carolina - CSE
 University of South Florida - CSE
 University of Southern California - CS
 University of Southern California - EECS
 University of Tennessee, Knoxville - CS
 University of Texas, Arlington - CSE
 University of Texas, Austin - CS
 University of Texas, Dallas - CS
 University of Texas, El Paso - CS
 University of Toronto - CS
 University of Tulsa - MCS
 University of Utah - CS
 University of Virginia - CS
 University of Washington - CSE
 University of Washington - I
 University of Washington, Bothell - CS
 University of Washington, Tacoma - CSS
 University of Waterloo - CS
 University of Wisconsin, Madison - CS
 University of Wisconsin, Milwaukee - EECS
 University of Wyoming - CS

Utah State University - CS
 Vanderbilt University - EECS
 Virginia Commonwealth University - CS
 Virginia Tech - CS
 Wake Forest University - CS
 Washington State University - EECS
 Washington University in St. Louis - CS
 Wayne State University - CS
 West Virginia University - CSEE
 Western Michigan University - CS
 Williams College - CS
 Worcester Polytechnic Institute - CS
 Wright State University - CSE
 Yale University - CS
 York University - CS

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The State of the IT Eco-System

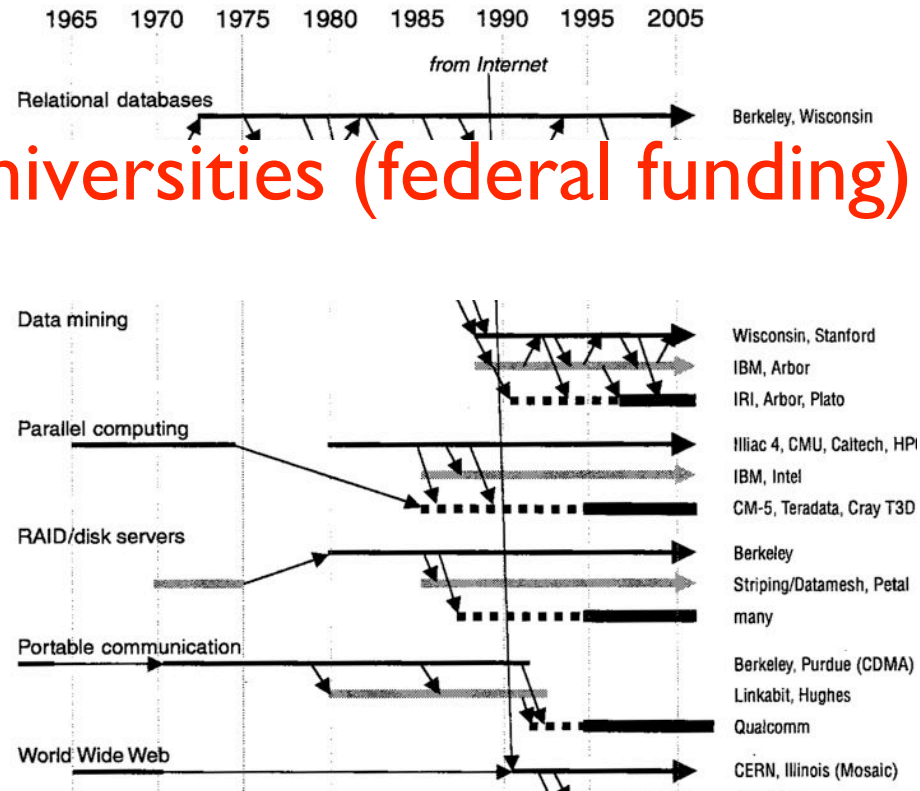
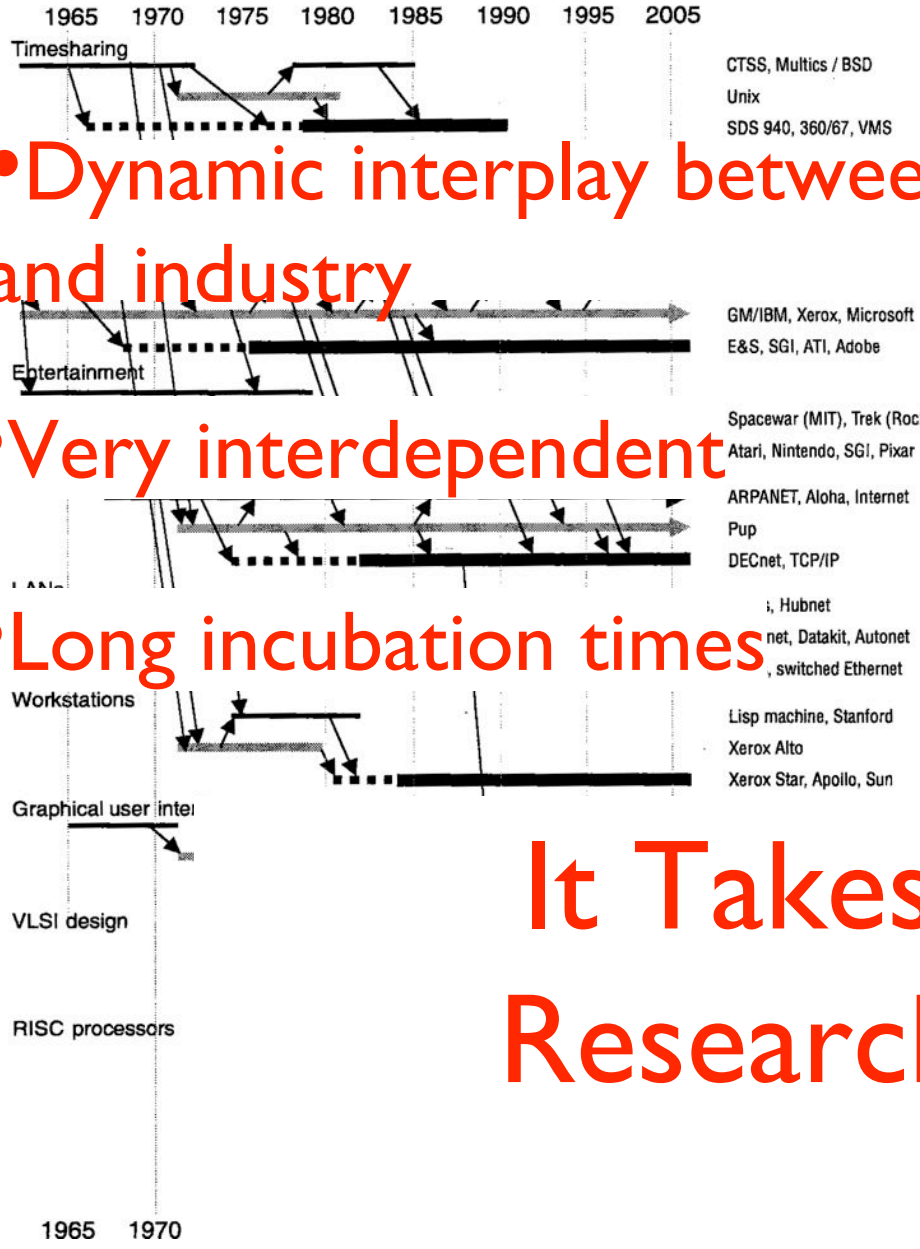
IT drove the U.S. productivity revival [from 1995 - 2000].
Dale Jorgenson

Key Points

• Dynamic interplay between universities (federal funding) and industry

• Very interdependent

• Long incubation times



It Takes a Partnership Researchers Funders

University
 Industry R&D
 Products
 \$1 B market

The topics are ordered roughly by increasing date of \$1 B industry.



Additional Key Points

- Industry cannot fund sufficient basic research
 - cannot gain competitive advantage
 - cannot ensure it is sufficiently focused
- People are the agents of innovation



How Has the IT Eco-System Changed?

- Lack of student/public interest
- Funding has declined
- Multiple funding models have disappeared



What Would Improve the IT Eco-System?

- Funding
- Multiple funding models
- Mission agencies funding required basic research
- Increased student interest in computing



The Computing Community Consortium: Why, What, Who, How?



Why A CCC?

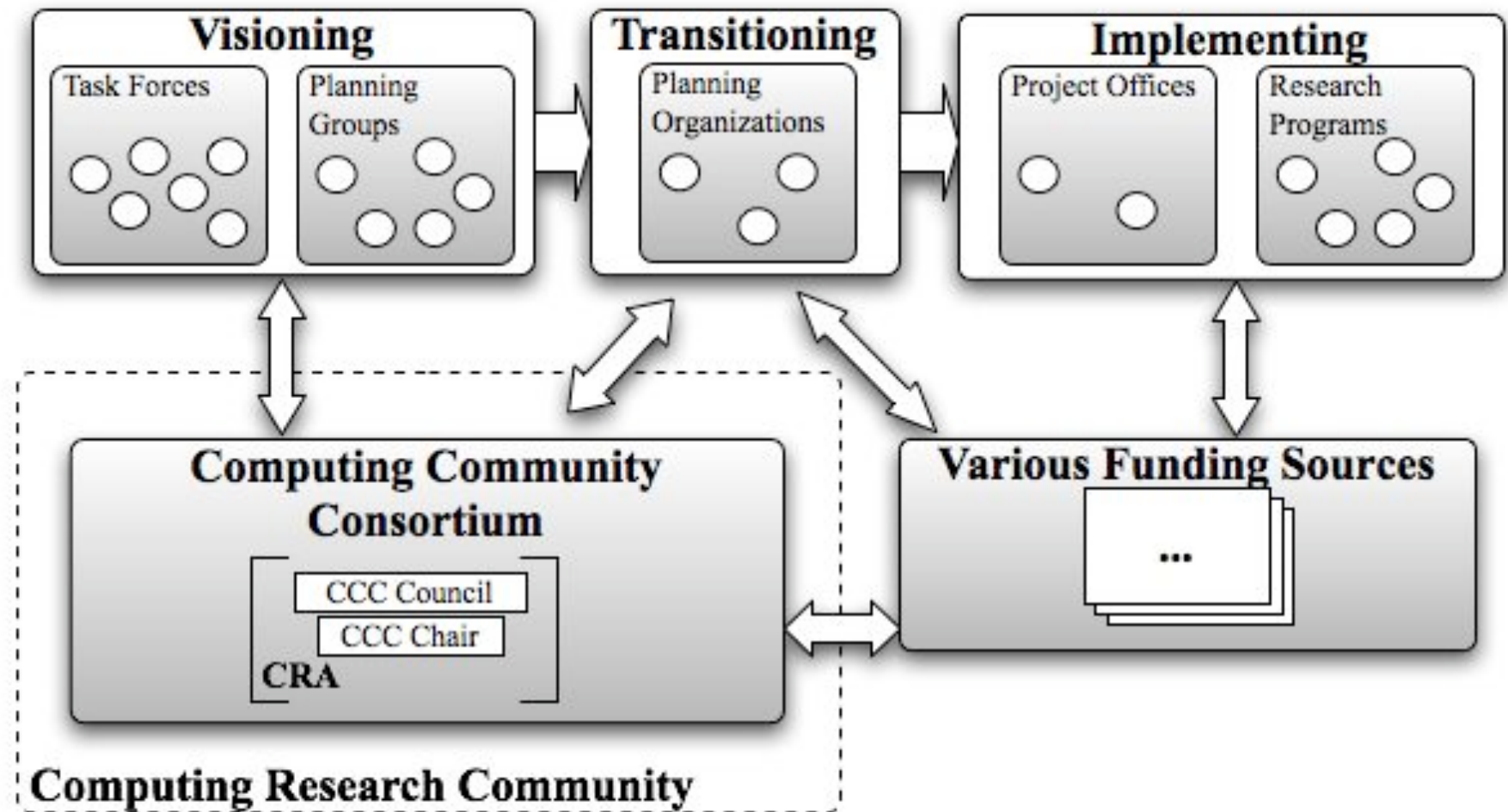
- What questions shape our intellectual future?
- What attracts the best and brightest minds of a new generation?
- What are the next big computing ideas?
 - that will define the future of computing
 - galvanize the very best students
 - catalyze research investment and public support
- Computing Community Consortium purpose
 - create compelling research visions
 - create the mechanisms to realize these visions



The CCC Challenge

- Catalyze the computing research community
 - debate long range, more audacious research challenges
 - build consensus around research visions
 - articulate those research visions
 - work with funding organizations to move the challenges and visions toward funding initiatives
- Do this without harming the research environment
 - that has created the computing world of today

How Will The CCC Work?



Who Will Be The CCC?

- Broadly inclusive
 - the entire computing research community
- Welcome participation
 - any computing researcher who wishes to be involved
- The CCC Council's role
 - stimulate and facilitate visioning
 - NOT to do the visioning
- A Cooperative Agreement with CISE
 - Will be an interactive partnership



Broader Impacts

General Public

- Promote computing as a thriving intellectual discipline
- Show role of information technology in tomorrow's world

Students

- Entice more students to enter computing-related fields
- Provide training opportunities for future leaders



Resources

- Task Force on the Future of American Innovation report; November 16, 2006
- CRA Policy blog www.cra.org/research
- CRA Task Force on Research Funding; March, 2007