

Computing Researchers and Science Policy

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Gov policy-makers need CS input

- CS is a significant economic driver
- CS plays a key role in new societal initiatives
 - “Smart” Energy
 - “Smart” Health IT
 - Sustainability
- CS needed for updating antiquated policy
 - Communications
 - Phone vs Internet
 - Wired vs Wireless
 - Privacy
- CS enables cyber-security, cyberwar, etc...

A broad effort is required

- CRA + professional societies
- Not just lobbying (or “educating”)
 - Populate advisory boards
 - Not just at funding agencies!
 - “chief X” (at FCC and FTC)
 - continuing dialog with Congress by a broad cross-section of CS community
 - ... and IPA’s at funding agencies (as before)

Ergo: A new community priority

Physics was; CS is and will be.

Goals for a proposed **new world order**:

- Enhanced situational awareness
 - Understand how to be effective in a political arena
 - Understand today's policy and political landscape
- Revise our values to encourage broad involvement in policy and government.
 - Full-time and part-time roles
 - Working with agencies and with Congress

New agenda for CRA / Gov Affairs

- Foster increased “policy temperature” in the CS community.
 - Leadership (=you!) support is needed.
 - Education in skills and subject matter is needed.
- Provide means for the community to engage.
 - Events to facilitate broader engagement
 - Events to facilitate CS community education for more-effective engagement.

Today's Session

- Overview of Leadership in Science Policy Institute (LiSPI) [Schneider]
- Snapshot of current Washington scene [Harsha]

LiSPI: The Event

- Date: Nov 7, 2011
- Venue: Capitol Hill
- Attendees: 33 students

LiSPI Mission

- Develop a next generation of leaders in the computing research community
- Educate a small cadre of computing researchers on how science policy in the US is formulated and how it can be influenced.
- Increase visibility among CS researchers that we need to be playing a role in policy.

... funded under auspices of CCC as a joint activity with CRA.

Desired Outcomes

- **For CRA:** Researchers well-versed in science policy, who become a rapid-response geographically-diverse group of advocates for the field.
- **For individuals:** Comfort with government processes, to become effective in specific spheres of influence.

The Students ...



- 7 were women
- 19 received financial assistance

The Students ...



From 24 institutions...

- Universities: public (23), private (7)
- Industry: (4)

The Students ...

Stanley Ahalt, University of North Carolina Chapel Hill
Fabian Bustamante, Northwestern U.
Li-Chiou Chen, Pace University
John Chuang, UC Berkeley
Patrick Crowley, Washington University in St. Louis
Brian Davison, Lehigh University
John Fernandez, Texas A&M University - Corpus Christi
Tim Finin, University of Maryland, Baltimore County
Carrie Gates, CA Labs, CA Technologies
Ronald Greenberg, Loyola University
Rebecca Grinter, Georgia Institute of Technology
Dan Grossman, University of Washington
Carl Gunter, University of Illinois
Sandeep Gupta, Arizona State University
Neil Heffernan, Worcester Polytechnic Institute
Michael Isard, Microsoft Research
David Jensen, University of Massachusetts Amherst
Howard Karloff, ATT Labs—Research

Gary Leavens, University of Central Florida
Klara Nahrstedt, University of Illinois at Urbana-Champaign
Cristina Nita-Rotaru, Purdue University
Vern Paxson, UC Berkeley / ICSI
Naren Ramakrishnan, Virginia Tech
Dana Randall, Georgia Institute of Technology
Lawrence Rauchwerger, Texas A&M University
Eleanor Rieffel, FXPAL
Shashi Shekhar, University of Minnesota
Frank Shipman, Texas A&M University
Sotirios Skevoulis, Pace University
Peter Stone, The University of Texas at Austin
Alfred Weaver, University of Virginia
Daniel Weld, University of Washington
Emmett Witchel, The University of Texas at Austin

Selection Process

- Applicants evaluated based on:
 - Short essay detailing interest in science policy
 - Support letter from chair
 - Whether financial support was needed
- Evaluation committee:

Peter Harsha, Anita Jones, Ed Lazowska, Fred Schneider, Jeannette Wing.

Content: Main Themes

- Gov 601 (rather than Gov 101).
 - Behind the scenes: Creating budgets and programs.
 - Kinds of arguments that work (and don't).
- Roles for CS researchers in the process
 - ... from afar
 - ... full-time in DC

Content: Meeting Agenda 1/2

- Overview (Schneider [Cornell])
- Interacting with Agencies / Creating new initiatives (Wing [CMU], Corn [NIH], Kelly [DOE])
- Role of Advisory Cmtes (Lazowska [CCC], Lin [CSTB])
- Federal Budget Process (Koizumi [WH OSTP])
- Federal Case for Computing (Harsha [CRA])

Content: Meeting Agenda 2/2

- Having the Conversation (Grossman [M Soft])
 - Included hands-on “laboratory exercise”
- Expert Panel: Communicating the Importance of the Field (Byers and Sokolov [House of Reps, cmte on Science Spase and Technology])

Assignment: Pre-Workshop

- **Read:** A Scientist's Guide to Science Policy (AAAS)
- **Identify** your members of Congress:
 - Party
 - Cmte assignments
 - Policy Priorities
 - Evidence of support for Science
- **Write:** Paragraph for your Reps and Senators describing your research and its importance.

Assignment: Post-Workshop

Draft 30-second answers to 2 questions:

- Questions were posted to witnesses at House Sci Cmte hearing on NITRD 9/21/2011
- How do we justify increased NITRD funding given today's budget climate?
- How do we justify increased IT investment given its small effect on balance of trade.

Answers and critiques posted at http://cra.org/ccc/spi_homework.php

Participant-Survey Summary

- Post-workshop survey:
 - Completed by 25 participants out of 34
 - Overall ratings: Excellent (18); Good (7)
- “Did workshop make attendee more comfortable about engaging in science policy?”
 - Strongly Agree or Agree (25)
- “Were program topics appropriate?”
 - Strongly Agree or Agree (23)

Next Offering: Spring 2013

- Extend from 1 day to 1.5 days
 - Allocate more time for certain speakers / topics
 - Add speakers
- Increase audience to approx 60