COMPUTING COMMUNITY CONSORTIUM

CCC

Computing Community Consortium

Catalyst

An Overview Of The Computing Community Consortium

- Established in 2006 as a standing committee of the Computing Research Association (CRA)
- Funded by NSF under a Cooperative Agreement
  - Third award began in April 2018
- **Facilitates the development of a bold, multi-themed vision for computing research – and communicates this vision to stakeholders**
- Led by a broad-based Council
- Staff based at CRA

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The CCC Council

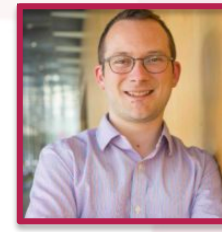
Chair: Mark D. Hill
Vice Chair: Liz Bradley

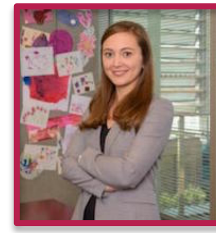
Terms ending June 2022
- Sujata Banerjee, VMware
- Elisa Bertino, Purdue University
- Tom Conte, Georgia Tech
- Maria Gini, University of Minnesota
- Chad Jenkins, University of Michigan
- Melanie Mitchell, Portland State University
- Katie Siek, Indiana University

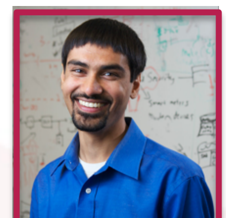
Terms ending June 2021
- Ian Foster, University of Chicago
- Ronitt Rubinfeld, MIT
- Suresh Venkatasubramanian, Utah
- Daniel P. Lopresti, Lehigh University
- David C. Parkes, Harvard
- Shwetak Patel, Univ. Washington

Terms ending June 2020
- Nadya Bliss, Arizona State
- Juliana Freire, NYU
- Keith Marzullo, Maryland
- Greg Morrisett, Cornell
- Jennifer Rexford, Princeton
- Ben Zorn, Microsoft Research



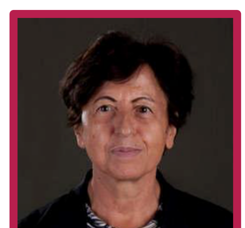









Geographic Distribution Of The CCC Council

Legend:
Blue – Previous
Red – Current

What Do CCC Council Members Do?

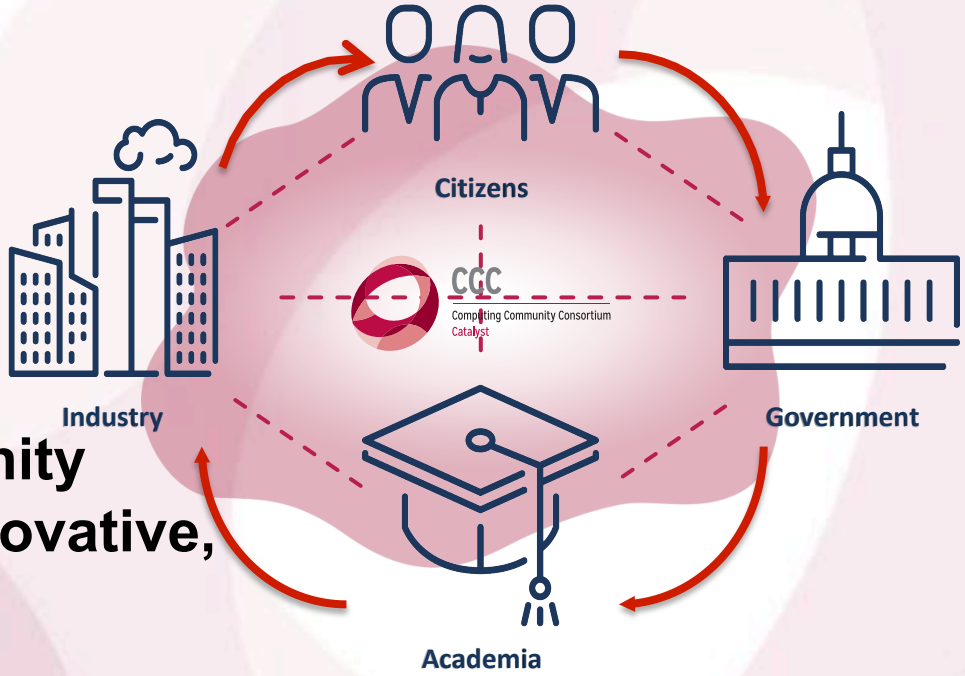
- **Engage with topical challenges and research directions** through task forces & working groups
- Evaluate, enhance, and shepherd **visioning activities**
- **Interact** with government agencies, industry, and sister organizations (NSF, ACM, LISPI …) to facilitate investment and inculcate leadership and service by the computing research community
- Participate in CCC **communications**, such as white papers and blog posts, or appearing on the *Catalyzing Computing* podcast

CCC History

- NSF solicitation + CRA Proposal + Cooperative Agreement (2006)
- Chair appointed (Winter 2007) + Council appointed (Spring 2007)
- Vice-Chair position formalized: Fall 2007
- Full-time Director (Erwin Gianchandani) joins: Spring 2010
- Renewal proposal submitted: Spring 2011
- Steady-state organizational structure defined: Fall 2012
- Executive Committee launched: Winter 2013
- Ann Schwartz joins as Director: Spring 2013
- Regular Chair / Vice-Chair succession kicks in: Summer 2013
- Proposal and Renewal (2017)
- Third Award (2018)
- Reverse Site Visit (2019)

Mission

The mission of Computing Research Association's Computing Community Consortium is to **catalyze the computing research community and enable the pursuit of innovative, high-impact research.**



CCC conducts activities that **strengthen the research community,** articulate compelling research visions, and align those visions with pressing national and global challenges. CCC **communicates** the importance of those visions to **policymakers, government and industry stakeholders, the public, and the research community itself.**

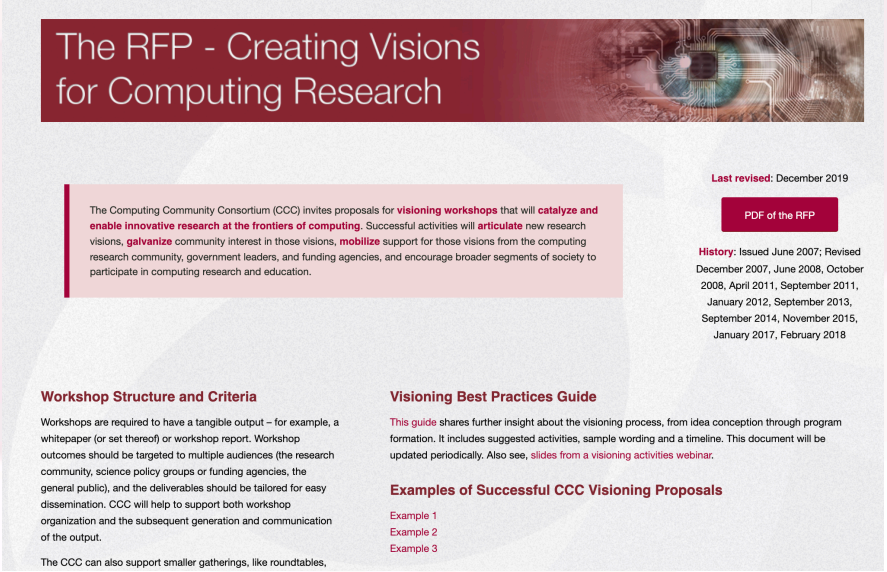
Visioning Examples

- Over 58 visioning activities in 10 years
- Average of 8 activities per year in the last 3 years
- 24 workshop reports released in past 5 years
- 37 white papers released in past 5 years

2019 Visioning Workshops	
Thermodynamic Computing	January 3-5, 2019
Artificial Intelligence Roadmap Workshop 2- Interaction	January 8-9, 2019
Artificial Intelligence Roadmap Workshop 3- Self Aware Learning	January 17-18, 2019
Identifying Research Challenges in Post Quantum Cryptography Migration and Cryptographic Agility	January 31-February 1, 2019
Code 8.7: Using Computational Science and AI to End Modern Slavery	February 19-20, 2019
Misinformation Roundtable	March 26, 2019
Economics and Fairness	May 22-23, 2019
Wide-Area Data Analytics	October 3-4, 2019
Assured Autonomy Workshop #1	October 16-17, 2019
Computational Support for Substance Use Disorder Prevention, Detection, Treatment, and Recovery	November 14-15, 2019
Leadership in Science Policy Institute	November 21-22, 2019

Pre Workshop

- Iterative **feedback & revision** with CCC Leadership, Exec, & Council
- Ensure **diversity** of leadership and attendees:
  - Intellectual sub-area
  - Stakeholder
  - Career stage
  - Institution
  - Gender, race, etc.
- CRA staff **supports logistics**


The RFP - Creating Visions for Computing Research

The Computing Community Consortium (CCC) invites proposals for **visioning workshops** that will **catalyze and enable innovative research at the frontiers of computing**. Successful activities will **articulate** new research visions, **galvanize** community interest in those visions, **mobilize** support for those visions from the computing research community, government leaders, and funding agencies, and encourage broader segments of society to participate in computing research and education.

Last revised: December 2019

PDF of the RFP

History: Issued June 2007; Revised December 2007, June 2008, October 2008, April 2011, September 2011, January 2012, September 2013, September 2014, November 2015, January 2017, February 2018

Workshop Structure and Criteria

Workshops are required to have a tangible output – for example, a whitepaper (or set thereof) or workshop report. Workshop outcomes should be targeted to multiple audiences (the research community, science policy groups or funding agencies, the general public), and the deliverables should be tailored for easy dissemination. CCC will help to support both workshop organization and the subsequent generation and communication of the output.

The CCC can also support smaller gatherings, like roundtables,

Visioning Best Practices Guide

This guide shares further insight about the visioning process, from idea conception through program formation. It includes suggested activities, sample wording and a timeline. This document will be updated periodically. Also see, slides from a visioning activities webinar.

Examples of Successful CCC Visioning Proposals

Example 1
Example 2
Example 3

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At The Workshop

- Request short **position papers** from participants; circulate before
- Select a few **“input” keynotes** / panels from complementary perspectives
- Spend most time in **breakouts** & report outs – a workshop, not a conference
- CCC council and staff **facilitate** throughout so organizers can focus on content

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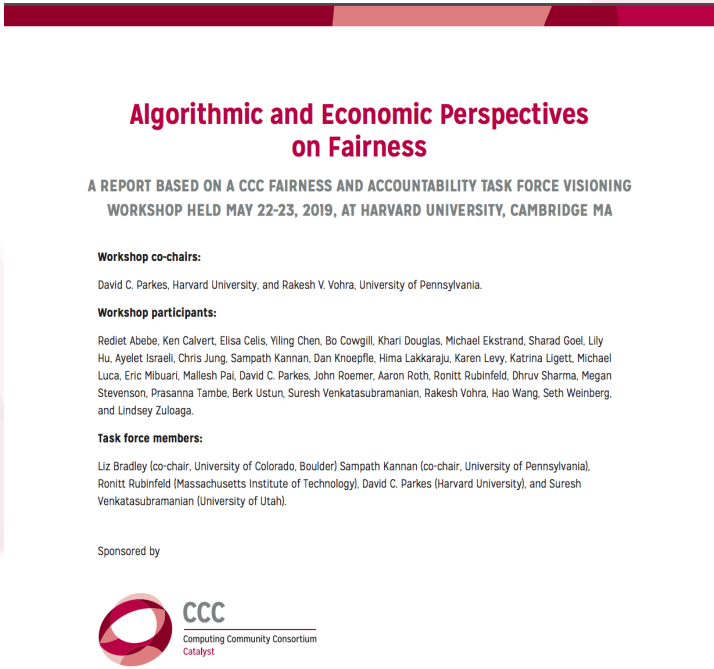
Post Workshop

- Goal: polished, **effective deliverables; leveraged impact**
- CCC **supports** the endgame and the follow-through
- Staff & leadership work with organizers to produce draft report
- Draft **circulated** among…
  - CCC leadership
  - Workshop attendees
  - CCC council
  - Other stakeholders
- Iterative feedback and **revision** with organizers
- CCC sets up and coordinates **meetings** with appropriate stakeholders (agencies, etc.)



Algorithmic and Economic Perspectives on Fairness

A REPORT BASED ON A CCC FAIRNESS AND ACCOUNTABILITY TASK FORCE VISIONING WORKSHOP HELD MAY 22-23, 2019, AT HARVARD UNIVERSITY, CAMBRIDGE MA

Workshop co-chairs:

David C. Parkes, Harvard University, and Rakesh V. Vohra, University of Pennsylvania.

Workshop participants:

Rediet Abebe, Ken Calvert, Elisa Celis, Yiling Chen, Bo Cowgill, Khari Douglas, Michael Ekstrand, Sharad Goel, Lily Hu, Ayelet Israeli, Chris Jung, Sampath Kannan, Dan Knoepfle, Hima Lakkaraju, Karen Levy, Katrina Ligett, Michael Luca, Eric Mibuari, Mallesh Pai, David C. Parkes, John Roemer, Aaron Roth, Ronitt Rubinfeld, Dhruv Sharma, Megan Stevenson, Prasanna Tambe, Berk Ustun, Suresh Venkatasubramanian, Rakesh Vohra, Hao Wang, Seth Weinberg, and Lindsey Zuloaga.

Task force members:

Liz Bradley (co-chair, University of Colorado, Boulder) Sampath Kannan (co-chair, University of Pennsylvania), Ronitt Rubinfeld (Massachusetts Institute of Technology), David C. Parkes (Harvard University), and Suresh Venkatasubramanian (University of Utah).

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Task Forces

- **What**: small groups with specific foci
- **Why**: amplify Council members' efforts
- **Members**: from the Council and outside
- **Outputs**: white papers, visioning activities
- **Re-evaluated:** yearly

COMPUTING COMMUNITY CONSORTIUM

The **mission** of the Computing Research Association's Computing Community Consortium (CCC) is to **catalyze** the computing research community and **enable** the pursuit of innovative, high-impact research.

Bring the computing research community together to envision audacious research challenges.

Communicate these challenges and opportunities to the broader national community.

Facilitate investment in these research challenges **by key stakeholders**.

Inculcate values of **leadership** and service by the computing research community.

Inform and influence early career researchers to engage in these community-led research challenges.