CREATING INCENTIVES FOR ACTION
Developing a Shared Research Agenda
Code 8.7 Conference
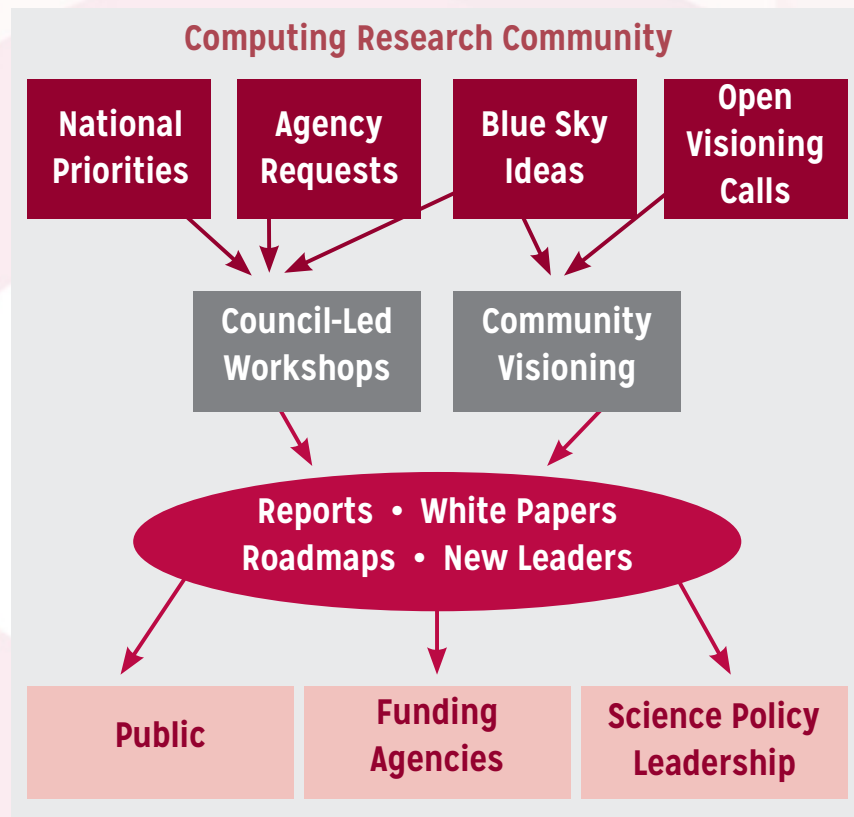
The Computing Community Consortium (CCC)

CCC
Computing Community Consortium
Catalyst

COMPUTING COMMUNITY CONSORTIUM

The Computing Research Association's Computing Community Consortium (CCC) catalyzes the North American computing research community to enable the pursuit of innovative, high-impact research.

Computing Research Community

National Priorities → Council-Led Workshops

Agency Requests → Council-Led Workshops

Blue Sky Ideas → Community Visioning

Open Visioning Calls → Community Visioning

Council-Led Workshops → **Reports • White Papers Roadmaps • New Leaders**

Community Visioning → **Reports • White Papers Roadmaps • New Leaders**

Reports • White Papers Roadmaps • New Leaders → Public

Reports • White Papers Roadmaps • New Leaders → Funding Agencies

Reports • White Papers Roadmaps • New Leaders → Science Policy Leadership

Who:
- Council – 20 members
- CCC/CRA Staff
- Chair, VC, & Director

What:
- Workshops & Conf. Blue Sky Tracks
- Whitepapers & Social Media
- Reports Out (esp. to government)
- Biannual Symposium

Professional Development:
- Early Career Workshops & Participation
- Council Membership
- Leadership w/ Gov't (LISPI)

CCC AS A CATALYST

cat·a·lyst

- a substance that increases the rate of a chemical reaction without itself undergoing any permanent chemical change.
- a person or thing that precipitates an event.

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CCC TASK FORCES

CCC Task Forces identify needs and opportunities, then take actions intended to "move the needle" in a target area.

CCC Task Forces:
- Small, agile, limited lifetimes.
- Include CCC members and others from the community.
- Meet via teleconference on a regular basis.
- Report out to the CCC as a whole periodically.
- Produce whitepapers to scope out research challenges and help inform agency-initiated investments in computing.
- Organize visioning activities that connect the research needs of the community with the mission needs of agencies.

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CCC 2018-2019 TASK FORCES

- Cybersecurity and Cybercrime
- Health and Human Computer Interaction
- Information Integrity and Provenance
- Intelligent Infrastructure
- Fairness and Accountability
- Systems and Architecture
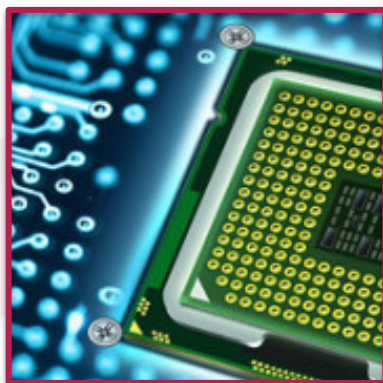- Industry Working Group: Transportation
- AI Roadmap Working Group

EXAMPLES OF CCC AMPLIFICATION

BRAIN Initiative launched in 2013.

CCC co-hosted the Brain Workshop with NSF in 2014.

CCC co-hosted the SA+TS workshop with SRC and NSF in 2013.

Produced Research Needs for Trustworthy, and Reliable Semiconductors Report in 2015.

The National Strategic Computing Initiative
NSCI

NSCI announced in July 2015.

CCC produced a series of blog posts on the topic, featuring one from Doug Burger, and the Convergence of Data and Computing task force frequently overlaps with this topic.

Smart and Connected Health Program in NSF and NIH.

CCC has hosted several workshops on related topics, including: Aging in Place (2014), Inclusive Access (2015), and Smart and Pervasive Health (2016) and produced related reports and white papers.

FOUNDATIONAL AI RESEARCH

From recent discussions within the AI research community:

- Open knowledge repositories

- Contextualized AI

- Human / AI collaboration

- Trust and responsibility

- Diversity of interaction channels

- Improving online interaction

- Robust and trustworthy machine learning

- Deeper learning for challenging tasks

- Integrating symbolic and numeric representations

CODE 8.7: USING COMPUTATIONAL SCIENCE AND AI TO END MODERN SLAVERY

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A SHARED RESEARCH AGENDA

Our shared challenge:

- Effectively pooling our combined talents and energies in the fight to end modern slavery.

CCC's contribution to Code 8.7 as we envision it:

- Catalyzing the US computing research community.
- Engaging with US funding agencies and policy makers.
- Serving as a bridge to international efforts (new for CCC).

CODE 8.7: USING COMPUTATIONAL SCIENCE AND AI TO END MODERN SLAVERY

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A SHARED RESEARCH AGENDA

In collaboration with Code 8.7 partners:

- Contribute to communications arising from conference.
- Participate in follow-on events organized by partners.

Working directly with CCC's constituencies:

- Employ convening power in US computing community.
- Organize a research-themed workshop for Fall 2019.
- Produce research-themed communications for the community, funding agencies, and foundations.

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