CRA Strategic Plan:
A Foundation for Moving Forward

Snowbird 2022
Ellen Zegura (GT), Andy Bernat (formerly CRA!)
Very Brief Process Review

- Hired Greenway Strategy Group
- Created Strategic Planning Steering Committee
- Phase 1: July 2019 - December 2019 Analysis
- Phase 2: January 2020 – August 2020 Strategic Plan Development
  - Snowbird 2020 – interactive feedback on initiatives/priorities
- Strategic Plan Finalized (see handout)
Target State I (Priority Outcomes)

• Source of content and resources that inform the field

• Cultivator of novel approaches to current and future opportunities for computing research

• Respected voice of the computing research community to government and other policy makers

• Champion for a diverse, welcoming, and equitable computing research community
Target State II (Priority Outcomes)

• A leader in promoting socially responsible computing research

• A catalyst for academic, government and industry computing research organizations to enhance the field
New Mission Statement

The mission of the Computing Research Association (CRA) is to catalyze computing research by joining with industry, government, and academia. CRA executes this mission by leading the computing research community; informing policymakers and the public; and championing a diverse, welcoming, equitable, and socially responsible computing research community.
How to Get There (Strategic Themes)

Prioritize and focus CRA effort

Leverage the capacity of the CRA network

Inform the field of emerging best practices

Expand partnerships and connections among the computing research community

Strengthen pathways and diversify the field of computing researchers

Increase awareness of CRA value
What to Do First (Strategic Initiatives)

A1. Establish a focus on socially responsible computing
17% First Priority 14% Second Priority

E2. Broaden the diversity of thought and demographics in computing research
16% First Priority 15% Second Priority

B2. Influence policy decisions that affect the computing research community
24% First Priority 6% Second Priority

B1. Increase engagement of CRA member organizations and computing researchers
10% First Priority 8% Second Priority

C2. Enhance understanding of the positive impact of computing research on society
6% First Priority 10% Second Priority

A2. Establish a transparent framework for assessment and selection of activities
4% First Priority 12% Second Priority
Selected Activities

- Socially Responsible Computing Working Group
  - Co-chairs: Cindy Bethel, Ran Libeskind-Hadas
- Governance Working Group
  - Chair: Dan Grossman
  - Previous group: Isbell, Morrisett, Ramming, Rheingans, Zegura
- CRA-Industry Committee
  - Co-chairs: Vivek Sarkar, Ben Zorn
- Research Integrity (responsive to NSF)
Reflection and Transition
Looking Forward

Tracy Camp
Executive Director
Tracy Camp
Colorado School of Mines
Emeritus Professor
Tracy Camp
Colorado School of Mines
Emeritus Professor
Strategic Plan 2021-2026
Agenda:

- CRA Career Engagement
- Challenges
- CRA Governance/Structure
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- CRA Career Engagement
- Challenges
- CRA Governance/Structure
Brainstorming Time (15 min):

What can/should CRA do for the research community, considering different points of one’s career?

Write ideas down on BLUE post-it (one idea per note)
Agenda:

- CRA Career Engagement
- Challenges
- CRA Governance/Structure
Several BIG challenges exist …

Socially responsible computing
CRA reach / awareness / communications
Broadening Participation in Computing (BPC)
Eating the seed corn
Faculty burnout (growth, COVID)
Research funding
Tech backlash
Computing research everywhere
Research integrity
Climate change (computing and climate science)
Several BIG challenges exist …

- Socially responsible computing
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#1
Socially responsible computing research
Sustainability
#2
Expanding Partnerships/Connections
Today: 3:30pm (Ballroom 3)

Bowie State University
Howard University
Merced College
Morehouse
Morgan State University
New Mexico Tech
Norfolk State University
North Carolina A&T State Univ

Northeastern Illinois University
Roosevelt University
Southern Univ and A&M College
Spelman College
Texas A&M, San Antonio
Texas Southern University
University of Hawaii at Hilo
#3
Broadening Participation
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<td>157</td>
<td>987</td>
<td>~6.3x</td>
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<tr>
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<td>17</td>
<td>226</td>
<td>~13.3x</td>
</tr>
<tr>
<td>AHN (#)</td>
<td>12</td>
<td>180</td>
<td>~15x</td>
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</tr>
<tr>
<td>Women (%)</td>
<td>10.8%</td>
<td>22.9%</td>
<td>~2.1x</td>
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<tr>
<td>AHN (%)</td>
<td>7.6%</td>
<td>18.8%</td>
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Women at Mines: ~31.7%
URG at Mines: ~18%
Workshop
Aug 3-5, 2022
Denver
#4
Eating the seed corn
Number of CS PhDs Awarded 2004-2021

Source: CRA Taulbee Survey
% Domestic/International

Source: CRA Taulbee Survey

PhDs Awarded US CS

% International CS PhD

% Domestic CS PhD

2012: 48.7%
2013: 47.6%
2014: 46.5%
2015: 45.4%
2016: 46.3%
2017: 47.2%
2018: 48.1%
2019: 49.0%
2020: 50.0%
2021: 31.4%
CSGrad4US, through fellowships and mentoring, aims to increase the number of diverse, *domestic* graduate students pursuing research and innovation careers in the CISE fields: computer science, computer engineering, or information science.
Brown University - Carnegie Mellon University - Cornell - Duke University - Georgia Tech - Harvard University - Indiana University - Iowa State University - MIT - New York University - Northeastern University - Princeton University - Purdue University - Rice University - Stanford University - Toyota Technical Institute at Chicago - Tufts University - University of California-Berkeley - University of California-Irvine - University of California-Los Angeles - University of California-San Diego - University of California-Santa Cruz - University of Chicago - University of Colorado-Boulder - University of Colorado-Denver - University of Houston - University of Minnesota - University of Nebraska-Lincoln University of Pennsylvania - University of Southern California - University of Texas-Austin - University of Texas-Dallas - University of Virginia - University of Washington - University of Washington-Tacoma - Virginia Tech - Yale University
#5 Faculty Burnout
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Zoom Convos
(coming soon to a computer near you)
1) Should we move Snowbird?
2) If yes, should we keep a resort-style location?
3) And what should we call this conference?
4) And do we keep it every other year?

Write thoughts down on **YELLOW** post-it
Agenda:

- CRA Career Engagement
- Challenges
- CRA Governance/Structure
What makes a high-performing board?

Does CRA have one?
CRA Governance System Definitions*

Executive Committee: Four elected officers of the board and at most one additional member appointed by the Chair with Board approval. Executive Director is a non-voting, ex-officio member. Advises the Chair and makes decisions that cannot wait for the next Board meeting.

Standing Committee: Membership, Elections and Finance with membership consisting of board members. Members appointed annually by the Chair with approval of the Board.

Programmatic Committee: Board establishes; well-defined mission to address “problems of the computing research community” requiring a long-term focus; leadership approved by the Board; permanent until dissolved by Board action; Board ratifies committee membership changes.

Ad Hoc Committee: Appointed as necessary by the Chair with the concurrence of the Board. Members appointed annually by the Chair.

* Per CRA By-laws
We Heard During Strategic Planning

• This governance system is not viewed as inclusive by everyone in the membership organizations.

• The means of setting the agenda and determining the issues that are addressed by CRA is not understood by the membership at large, nor is it clear how that agenda can be influenced by the membership.

• The organizations on the board are not necessarily representative of all organizations in the membership.

• The flow of work of the board and its committees is not always communicated, mutually understood, or connected.
Governance Questions

• What methods and type of input into Board agenda setting would member institutions like to have?

• How could the work of the Board be made more transparent?

• Should a new Topical Interest Group (TIG) category be added?
Governance Questions

• What actions and/or re-structuring would help ensure the Board is more representative of our community?

• What actions and/or re-structuring would help make the Board more inclusive?

• Should we re-evaluate method of nomination and voting for 24 at-large board members.
Brainstorming Time (15 min):

Ideas on how to modify the board/committee structure and selection process, to make CRA more represented and effective.

Write ideas down on **GREEN** post-it (one idea per note)
Looking Forward