Citizen Science and the University:

Institutional innovation, change, and engagement beyond the ivory tower

CitSci2019
Friday, 15 March 2019
3:45pm - 5:15pm
Who are we?

University-based professionals making explicit efforts to advance citizen and community science by changing how things work at our campuses.
Session Goals, Outputs

Explore ways that citizen science is creating change at universities.

Identify opportunities and challenges.

Gather input/feedback from YOU!

Potential Output: Perspective piece in *Citizen Science: Theory and Practice*
Session Overview

Overview from each panelist

Panel discussion of 5 themes with audience discussion and feedback

- Institutional Fit
- Partnerships
- Education
- Capacity Building
- Technology

Wrap-Up
Ways to Contribute

Discussion and Share-Out during the session.

Write your comments in the shared Google Doc:

tinyurl.com/citsci2019feedback
Arizona State University
University of Minnesota
Context: Citizen Science @ UMN

Land grant university with strong Extension program and long history of data collection Citizen Science

Since 2010, a lead institution within the Zooniverse platform

Hosted 2017 Citizen Science Association Conference

Across all five campuses!

New grant to link CitSci.org to Zooniverse
Incorporate citizen science in K-16 classrooms

Research enabled by citizen science

Technical Innovation

Education & engagement

Optimizing Human & Machine Classifiers

Connect data collection to data analysis projects

Facilitate gains in critical thinking skills

Incorporate citizen science in K-16 classrooms

Understand best practices in engaging volunteers

Workshops and helpdesk to develop new projects

Researchers & manager resources: protocols and data science algorithms

Center for Citizen Science@UMN: Will Enable Key Initiatives
NC State University
<table>
<thead>
<tr>
<th>College of Humanities and Social Sciences</th>
<th>College of Sciences</th>
<th>College of Natural Resources</th>
<th>College of Education</th>
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</thead>
<tbody>
<tr>
<td>Communication</td>
<td>Physics</td>
<td>Forestry &amp; Environmental Resources</td>
<td>STEM Education</td>
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<tr>
<td>Jean Goodwin</td>
<td>Katie Mack</td>
<td>Madhu Katti</td>
<td>Caren Cooper</td>
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<td>KC Busch</td>
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Citizen Science Campus

Undergraduate experiences

Curricular
STEM
Non-STEM
Across disciplines
Intro/advanced

Co-Curricular
Citizen Science Club
Residence Halls
Wolfpack Challenge
Kit Dispensers
Campus Hotspots

Rigorous Projects

Studies of citizen science
University of Washington
## CitSci @ UW

<table>
<thead>
<tr>
<th>Program</th>
<th>About</th>
<th>Cum. Participants</th>
<th>Age</th>
<th>Partners</th>
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<tbody>
<tr>
<td>Foldit</td>
<td>protein structure</td>
<td>735,718</td>
<td>12</td>
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<td>COASST</td>
<td>nearshore marine health</td>
<td>~5,000</td>
<td>20</td>
<td>WDFW; USFWS, USFS, NPS, NOAA; ACSPI-ECO, Samish, QIN, Kawerak, Makah</td>
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<td>Rare Care</td>
<td>endemic plants &amp; habitat</td>
<td>~650</td>
<td>22</td>
<td>WDNR</td>
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<tr>
<td>MeadoWatch</td>
<td>plant phenology &amp; climate</td>
<td>~350</td>
<td>7</td>
<td>WDFW; USFWS, USFS, NPS, NOAA; ACSPI-ECO, Samish, QIN, Kawerak, Makah</td>
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<tr>
<td>Crab Team</td>
<td>invasive species monitoring</td>
<td>~266</td>
<td>5</td>
<td>USFWS; Makah</td>
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</table>

We Win!!
or,…Do We?

produce educated, job-ready people
discover and accrue knowledge; invent things

growing economy

tuition

grants & contracts

Where is citizen science, community science, science by and for the people in this transaction?
A good thing, a moral imperative, a social movement is not necessarily something we can pay for

• What wouldn’t you fund at the university you’re at (partner with) so that the money could go to citsci?

• How would you put citsci into the “tried and true” feedback funding paths?
UC Davis
Based on a foundation of research excellence, the Center helps scientists, communities, and citizens collaborate on science to address environmental problems as a part of civic life.

- Collaborative research
- Trainings and workshops
- Assessment and planning
- UCD campus engagement and capacity building
• Collaborative research
• Trainings and workshops
• Assessment and planning
• UCD campus engagement and capacity building

Partnering with teachers, schools, districts; museums; agencies, non-profits, and units on campus.

Research on learning, environmental and civic outcomes, and on the field.

Trainings for educators; mentoring graduate students.

Advising on CCS project development

Campus events, workshops. Input on policy and programming
Panel Discussion

Panelist and Audience Conversations

FOR EACH PROMPT:

● Panelists: 2 minutes each
● 1 minute audience reflection
● 2 minutes of discussion with your neighbors
● 2 minutes of share-out
Institutional Fit

How does this initiative fit at your university?

Lucy, Ryan, Julia
Partnerships

How does this initiative connect to outside organizations?

Ira, Ryan
Education

How does this initiative relate to undergraduate and graduate education?

Julia, Caren, Ira
Capacity Building

How are faculty, scientists, and researchers across disciplines becoming engaged?

Lucy, Caren, Julia, Ryan
Wrap-Up and Next Steps!

View notes from the panel and audience discussion at:

tinyurl.com/citsci2019feedback