Beyond the Academy - Workshop 2

Building effective strategies for co-production of sustainability science

September 12 and 13, Duke University, Durham, NC --
Rubenstein Library room 153

Beyond the Academy Objective: Interdisciplinary research is necessary to tackle urgent societal challenges, yet institutional barriers hinder these efforts. Conventional systems reward individual work over collaboration and conformity over risk taking, dis-incentivizing engagement with “real world” problems, such as engaging the communities and context experts that have knowledge and experience that can inform and lead meaningful and sustainable action for impact. While universities have invested in institutes, graduate programs, and other cross-cutting mechanisms to support engaged sustainability science and policy, many remain uncoordinated experiments with limited contribution to systemic change and limited long term institutional support. Our project aims to change that.

Workshop Objectives:
1. Envision effective strategies for the co-identification of “real world” issues, and the sustained co-production of solutions and engaged research for “real world” sustainability issues across a diverse set of potential partners/clients, and identify challenges for academic engagement.
2. Develop high-impact action items or products that will enhance the effort to reform the academy’s role in co-production of sustainability science across all network institutions.
3. Using design thinking methods explore co-productions strategies for selected project ideas, plotting how our respective work and institutions link to, and help to advance, knowledge and action, and identify persistent barriers and challenges to academic engagement.

Co-production of solutions refers to the design and implementation of scientific research (such as implementation science, action research, community-based participatory research, etc…) intended to solve problems in true partnership with end-users, so that scientific outputs are as useful as possible to those groups making decisions based on scientific findings.
### Day 1 (Thursday September 12)

- Welcome to Duke & Introductions
- Overview of Beyond the Academy & Updates
- Summary of Metrics Review from Workshop #1 (presentation)
- Review of Co-production: What We Know (presentation)
- Inspiring Co-production Panel
- Exploring Co-production
- Partnering in Co-production
- Action Items Brainstorming session

### Day 2 (Friday, September 13)

- Action Plan Development in Breakout Groups
- Action Plan Report Back
- Action Item Development
- Reconvene and Discuss
- Closing Comments
Welcome & Opening
Welcome to Duke by Lydia Olander

Present: Lydia Olander, Sara Mason, Bonnie Keeler, Charlotte Clark, Bhaskar Vira, Claudia Gunsch, Chris Plowe, Diana Wall, Taylor Ricketts, Kathryn Saterson, Paul Bolger, Rosie Alegado, Leah Gerber, Ryan Calder, Nate Nibbelink, Elizabeth (Lizzie) King, Laura MacDonald, Kay Jowers, Cassie Hoffman, Mark Borsuk, Christian (Chris) Lara, Angela Bednarek, Sheila Reddy. Ed Balleisen and a few others joined intermittently later in the workshop.

Overview of Beyond the Academy & Updates
Project objectives are to address four challenges to doing interdisciplinary sustainability work within academia:

- Reward and incentive structures (Workshop 1)
- Measuring research impact (Workshop 1)
- Co-production / engagement with partners (Workshop 2)
- Graduate student training (Workshop 3)

Outstanding challenges for network:
- How to work collectively with one voice as many institutions?
- Combating negative narratives around interdisciplinary and engaged work

Updates from network members:
- Discussing Beyond the Academy themes among early-career researchers
- Thinking about how to test and implement new types metrics for engaged research
- Developing a Knowledge Exchange Framework (KEF) in the UK (goal: codifying new academic incentives through policy change)
- Sharing the workshop experience with other center and institute directors, with intent to relay to upper administrators
- Planning a first annual Sustainability Research and Innovation Conference, and talking about how to incorporate Beyond the Academy themes (shifting academic incentive structures)

Summary of Metrics Review from Workshop #1 (presentation)
Overview of two presentations from Workshop #1:
- “Relevant metrics for measuring research impact” view pdf
- “Do institutional policies incentivize engaged scholarship?” view pdf
- Both also available at beyondtheacademy.dash.umn.edu/resources

Review of Co-production (presentation)
Literature review on co-production:
- Literature review on co-production view pdf
- Handout 1-pager summary view pdf
Discussion:

- Let's avoid muddling the meaning of transdisciplinarity and not refer to the co-production process as transdisciplinary.
- Ethnographic research involving researchers and co-producers could provide a model.
- Scaling up requires having a common outcome and common measure.

**Inspiring Co-production Panel**

Examples of collective impact or co-production of solutions (public health example, engineering example, community example)

**Presentation 1: Laura MacDonald**
Mortensen Center in Global Engineering, U Colorado

Drought Resilience Impact Platform (DRIP) aiming to mitigate drought in the horn of Africa

Expand on previous efforts by Kenyan and Ethiopian governments

- Technological solution: motorized boreholes

**Barriers**

- boreholes not always well maintained
- lack of communication over regional areas
- Al Shabaab active in area

**Goal: End drought emergencies**

1. Organizational network analysis
2. collective action approaches
3. localized drought forecasts
4. pay-for-performance maintenance contracting
5. directly measure performance through impact evaluation

**Actions taken:**

- Use sensors to track water use and pump activity, can identify when repair needed
- Report to partners the boreholes needing repair or experiencing changes in functionality
- Famine Early Warning System Network: partnership with USAID/NASA, adopted by Ethiopias and Kenyan gov'ts

**Presentation 2: Rosie Alegado**
University of Hawaii, Manao Oceanography

**Kūlana Noiʻi project** - rough translation “research standards” - example of building long term relationships between community and researchers

**Problem:** 800-acre, 800 year old fish pond in need of restoration

**Actions:**

- convened team of experts, including researchers and community members
- compiled best practices from literature and local initiatives, consulted with stewards and community members
- Building pilina: respect, reciprocity, self-awareness and capacity, communication

**Scaling up:**

- 3-part workshop series
- first series: 70 participants from 14 UH departments
- Recognized by national Sea Grant program
- have now done 15 workshops with 400 participants

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Both also available at beyondtheacademy.dash.umn.edu/resources
Incorporated into curricula for multiple departments

Outcomes:
- 89% participants: workshop outlined practical steps
- 96% said it would lead to action - How to track this???

Presentation 3: Leah Gerber
Center for Biodiversity Outcomes, Arizona State

Problem: lack of collaboration to address biodiversity crisis (not an issue of lack of research).
Specific goals: protect 1 million hectares, transition 100 million food producers to sustainable production, train students. Funding lacking for endangered species.

General approach:
- based in research
- partner with gov't, NGOs, businesses
- communicate globally
- incorporate into curricula for ASU students

Approach to specifically address funding issues for endangered species:
- Put together a team of gov't and academic scientists
- SESYNC Venture grant
- Used “knapsack” approach to optimize allocation of resources for species

Outcomes:
- Results published in Science (2018)
- “Decision theatre” - managers run budget scenarios, see results across all aspects of the work at once
  - Able to get feedback from senior administrators at same time as managers
- Slowly getting into communication channels at federal gov't level (Fish and Wildlife Service website)

Exploring Co-production
Small group activity: based on participants’ experiences discuss strategies that have and have not worked well for academics involved in co-produced research. Identify strategies that work, key failures, key opportunities, and barriers.

Group 1:
- Discussion focused on power dynamics.
- Conduct listening sessions for stakeholders to explain issues to researchers.
- Start out projects with honesty and humility, and acknowledging that you don’t have all the answers. Training academics in humility would be beneficial!
- Barriers: funding issues and institutional support. Centers dedicated to co-production beneficial, but dedicated funding not necessarily present, and good management at institutional level may be absent. What models exist for successful centers and institutes?

Group 2:
- Co-locate researchers and collaborators, NGOs, etc.
- How do we measure success of institutes/collaborations? UCCI (Cambridge) has established a formal theory of change identifying inputs, outcomes, impacts. Current ethnographic study on co-production process, above and beyond grant money, etc.
- Fragility of relationships dependent on individuals who may change over (esp. gov’t.)
- Gund Institute hired a boundary person who will identify partners, communicate, and facilitate (roles performed by the organization Compass)
- **Scholars Strategy Network**: used to connect researchers and policymakers
- History of mistrust between university and legislatures, agencies, rural communities, etc.

**Group 3:**
- Getting incentive structure right is important. Financially supportive and skill supportive structures should agree.
- Pew’s model is that program officers have deep area knowledge, but also communication experts provide support for grant winning teams.
- Addressing process issues and power dynamics - not always possible to export model.
- Community of practice - representatives from various organizations coming together and setting goals.

**Group 4:**
- Incentive structures: what are our products and how do we translate them?
- Metrics and evaluating impact important for tenure pathways, center directors, contractors, etc.
- Could we score universities based on their societal change (U.S. World and News Report)? Alternative indicators students and researchers and funders could look to decide what universities they want to be a part of or invest in.
- Potential short-term example - Impact scorecard: talk vs. walk. What indicators would go into such a scorecard?
- Need incentives to engage pre-tenure, so that faculty don’t have to wait until tenure to do engaged work.
- Helpful to have funding sources that have fewer strings attached that provide longer term, perhaps lower-level support. Funding sources that want societal impact not just academic impact.

**Group 5:**
- Financial models. Big time collabs between university and international NGOs set you up for funding, but a lot of the work is through local partnerships.
- Challenges for co-produced research include cobbling together funding sources.
- Often short on monitoring and evaluation.
- How to make partners part of the funding stream?
- Land grant schools already have ways to deliver findings to end users.
- Practicum courses to get students involved.
- Difficult to sustain partnerships long-term when relationship relies on individual faculty members.
- Collaborations. Partnerships rely on people who may already have a full plate - must have capacity and agency (i.e. permission from supervisor) to participate.
- Bridging institutions can help sustain partnerships- or just a “translation person”.

**Partnering in Co-production**
Small group activity: from participants’ experiences identify key challenges and opportunities when engaging communities and decision makers in co-production. Discuss by stakeholder type.

Challenges:
- Financial challenges to pay participants for transportation, food, time, etc.
- Getting institutional permission can be challenging.
- Being associated with university / country / occupation’s reputation can work against you.
- Working with corporations that want to keep the data. Intellectual property concerns from university side too
- Very different timelines - agency vs business vs academia
- Bureaucracy!
- Funding from donor often not on hand in time to move forward.

Recommendations:
- View partners’ contributions broadly, not just in academic terms (e.g. publications) Relational vs. transactional relationships.
- Need for researchers to be more comfortable sharing preliminary results
- Make research institutes more adaptable and responsive
- Find the “pockets” within institutions - gov’t and university - that can make partnerships happen even if runs somewhat contrary to institutional stance
- Hire dedicated person to translate academic policies and get through bureaucratic structures
- Funding from university to fund development phase would be helpful.
- Create marketplace for problems and solutions. Like minded project leads can find each other, efficient matchmaking for hiring, etc.

Action Items Brainstorming session
Full group and individual structured brainstorm: Identify the most significant challenges for academic institutions to engage in sustained co-production efforts and brainstorm ideas about what we can do about it.

-- End Day 1 --

Action Plan Development in Breakout Groups
Present list of action topics generated from yesterday’s brainstorm; discuss topics as a group; participants break out into groups working on their preferred action topic.

Action Plan 1: Beyond the Academy Network Extension and Expansion
- 3 scopes: immediate, within project timeline, beyond the grant (Oct 2020)
- Immediate: raise the profile
  - Op-ed linked to a timely news event
  - Include lit review
  - Go beyond loading doc model
  - Call for co-production with different types of decisionmakers
- Counter the “war on science”
- What can we be known for?
  - Webinar series
  - Being the face of the training
  - Develop a coproduction 101 slideshow to share with our own institutions
    - Intro to what co-production is, our missions call for it
    - Summary of mission statements vs. T&P
- Multiple audiences
  - The “believers”
  - People who don’t yet do it
  - Who is our primary audience? Our institutions or others’?
- Steps to expand the network:
  - Diagnose the landscape to find our niche
  - Landscape of meetings that we want to run sessions on - think about goals, what we want to share (SCB, ESA, ACES, AGU, AAAS, ICC)
- Co-production professional society - link to Future Earth sustainability science network
- A monthly communiqué or blog
- Website
  - Profiles of codevelopment leaders on the website
  - Resources from project to revamp website now that value propositions are being clarified
  - Highlight models of coproduction (feature people)
- Hire a web developer / social media person?
- Fundraising
  - Network becomes a way of raising funds together.
  - How do we get foundations to fund co-production work in academia? include a plan or work package for for co-production.
- How do you combat fatigue? Being able to share experiences and success stories.
- Apply for a research coordination network (RCN)
- Training
  - Co-production training for network participants (retreat).
  - Train the trainer. Trainers are change agents in their organisation.
  - Or the network does the training - the place to send graduate students for co-production training. Students would have to commit to going back to their universities and training others.
- Network could put job adverts each month in the area of co-production and sustainability
- Stronger engagement with social sciences. Balance input from required perspectives…
- Could the network be a mechanism for matching people with skills in co-production with groups/communities who need these skills?

**Action Plan 2: Institutional Impact Scorecard**
- Goal: Official ranking in news
  - Create our own scorecard
- Research how to get into news outlets (US News and World Report, Times Higher Education Supplement, national newspaper (e.g. Guardian), Q.S. World Rankings)
- Incorporate Carnegie Community Engagement Classification?
- Build an initial set of metrics that network universities can test
  - Public data
  - Internally collected
  - Survey of key people
- Web platform for collecting and sharing data
- Link to university metrics toolbox
- Rating vs ranking - start with rating (e.g. # stars like AASHE) and maybe evolve to ranking
- Start with our universities, self-reported data
- Use an award as incentive - “recognition”

**Action Plan 3: Institutional Reform**
- Decision tree/menu/matrix/resource/flow chart recommendation tool like Amazon or Netflix
  - Metrics:
    - Traditional metrics
    - Altmetrics
    - Narrative description (qualitative)
    - Business school model (choice of employer)
    - Portfolio
    - Practical / professional practice
  - Platform: app or website?
    - Send out for review / feedback / comments
- Boundary-bridging people
  - UK “knowledge brokers”
  - Model job description
  - Pull examples from other universities
  - Provide network for these people
- Remove administrative barriers to partnering externally
  - Develop a cultural IRB
  - Change reimbursement policies to make it easier to pay partners / community members
  - Examine intellectual property policies to protect disenfranchised communities
- Share knowledge among center directors
  - Organize a meeting!
- Promote the value of co-production/sustainability
  - Locate studies of skills needed by employers and desired by students
- Amplify students’ interest in sustainability
  - Create a “sustainability” designation for classes (Hawaii Manao has this)
- Secure long-term support/resources for cross-unit centers
  - Increase visibility by Deans - request more/better meetings
  - Use power of story (compelling narratives) paired with data about salience of sustainability fields from POVs of students and businesses (i.e. use the previous two bullet points to make a strong case for your center’s existence)
**Action Plan 4: Evaluation and New Data**

- Complete an “evidence synthesis” of the literature for evidence-based impact of co-production
  - Some studies exist on water projects, e.g. [this World Bank study](#)
- Survey boundary-spanning orgs that do co-production
- Assessment of our own network
- Develop self-survey for researchers before they start: "Are you ready to co-produce?"

**Action Plan Report Back**

Groups presented their action plans to the larger group.

**Action Item Development**

Narrowing of focus from action plans. **Bold** denotes projects that are underway.

**Administrative action items:**

- Create a sustainability designation for classes to tally student interest and enrollment (example: Hawaii Manoa)
- Amend reimbursement policies so community partners can easily get paid
- Develop a cultural IRB
- Review intellectual property policy and amend as necessary to prevent disenfranchising community partners
- Hire a boundary-spanning person (examples: ASU and Gund Institute)

**Beyond the Academy network management tasks:**

- Create a strategic plan for network retention / extension / expansion
- Short term ways to increase visibility:
  - [Put together panel for upcoming conference(s)](#)
  - Write essay(s) about workshop topics – target: Chronicle Higher Ed
  - Transition communications to a monthly newsletter format
  - Write op-ed tied to salient news story

**Center director tasks:**

- Form new group to share knowledge among center directors
- Increase center visibility with upper administration – call for more/better meetings, present compelling research stories from your center as well as metrics showing salience of sustainability science among students / businesses / broader society.

**Research and Evaluation tasks:**

- Survey boundary spanning organizations
- Lit review of the impact of co-produced research. Could build platform and then crowdsource reading and coding).

**Tools to develop:**

- **Create an Institutional Impact Scorecard**
Create a metrics toolbox/app for administrators - metrics prioritized by recommendations of users.

Training:
- Develop training curriculum for co-production
- Develop a short self-assessment for researchers: “Are you ready to co-produce?”

Reconvene and Discuss
Check in on where we are and what still needs to be done.

Several groups started on products during the breakout sessions, and these are the items that we will focus on first going forward:
- Institutional Impact Scorecard - Lydia Olander will refine a draft survey after sending around for comments
- Essays about workshop topics - Christina Locke will draft
- Co-production training curriculum - group drafted an outline and Lizzie King has students in mind to take this up
- Put together panel for upcoming conference(s) - Bonnie Keeler lead

Closing comments

-- End Day 2 --