"Filling the 'Ethics Gap' in Citizen Science Research:" A Workshop Report

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NSF-Sponsored Workshop on Citizen Science Ethics

- Conference title: "Filling the 'Ethics Gap' in Citizen Science Research"

- Conference sponsor: National Science Foundation (SES-1656096)

  – Lisa Rasmussen, PI

  – Anne Bowser, Advisor

  – Caren Cooper, Advisor

- Almost 40 participants

- July 17-18 at the North Carolina Museum of Natural Sciences, Raleigh, NC

Motivation for conference: Discussing the 'ethics gap' and how to fill it

- The 'ethics gap' is the gap between the ethical guidance and oversight Citizen Science (CS) needs and what it has access to.

  - Research ethics regulations may not apply to some forms of CS.

  - CS can challenge conventional ethical gatekeepers in research: regulations, institutional policies, journal policies, funding streams, etc. (e.g., because it is not conducted at an institution).

  - CS needs to approach ethics on its own terms, learning from existing research ethics, supplementing where necessary, and making its own contributions to the field of research ethics.

Challenge in setting up conference:

- Finding participants, especially a wide range of:
  - Practitioners (from project instigators to co-researchers to casual volunteers)
  - Disciplines (environmental sciences; astronomy; biomedical science, etc.)
  - Community/ethnicity diversity (e.g., indigenous members, non-white)
- Method: internet search; publication searches/footnote-chasing; invitee suggestions
- Success?: Moderate
- Cause: no significant interdisciplinary database of CS practitioners; no commonly accepted nomenclature (what names do various citizen scientists and practitioners have?)

Link to conference documents you are welcome to view:

- https://drive.google.com/drive/folders/oByqFbxbaY_ckNGRnXzRCeU1Heko

or

https://tinyurl.com/y8vsfmqd

Or navigate to citizenscience.org->Get Involved->Working Groups->Ethics Working Group->Resources->Library->Ethics Gap Conference

Conference goals

- Overall goal: to reach a shared understanding of the existing "gap" in ethical oversight in Citizen Science (CS), and begin to understand how this gap may be filled. Specific objectives included:
  - Crowdsourcing a list of key ethical issues across CS
  - Categorizing ethical issues in CS
  - Prioritizing which ethical issues are most pressing in CS
  - Identifying possible mechanisms for ensuring ethical research in CS
  - Outlining next steps, a possible timeline, and important stakeholders to engage.

Some key ethical issues identified:
(3 single-spaced-page list at link provided earlier.)

- Important to connect CS field with researchers in fields like environmental justice & community-based participatory research to 'bake in' important issues and wide involvement at early stage.

- Concerns about CS participant treatment: sharing credit/intellectual property? Exploitation? Overburdening? Ensuring respect? Pay/labor issues?

- Data integrity/bias/"snake oil" citizen science

- Diversity/power/vulnerable population concerns

- Liability/responsibility/accountability for harms

- Ethics training for citizen scientists?

- Privacy

- Community consensus and dialogue

Categorization & Prioritization of Ethical Issues

- 6 tables, > 6 categorization schemes!

- Not enough discussion of prioritization to reach consensus; need more work on identifying and categorizing issues first.

- Papers in development from at least two of these groups re: suggested conceptual categorization schemes.

Mechanisms discussed for addressing ethical issues in CS

- Ethical frameworks for thought:

    – European Citizen Science Association's "10 Principles for Citizen Science"

    – Resnik and Elliott; "A Framework for Addressing Ethical Issues in Citizen Science"

    – Cornell Ornithology Lab's ethical guidelines

    – GalaxyZoo's Code of Ethics

Possible <u>mandatory</u> mechanisms for addressing ethical issues in CS

- Federal regulations/statutes

- State laws

- Institutional policies (revised existing policies; new ones)

- Journal/publication/website/blog policies

- Funders: require ethics training and/or oversight

- Community IRBs

- Research ethics consultation (Ana Iltis' presentation)

- Professional decertification/de-licensing

Possible <u>voluntary</u> mechanisms for addressing ethical issues in CS

- Professional codes/guidelines

- Best practice guidelines

- Advisory bodies (e.g., National Academies recommendation re: Federal Advisory Board; voluntary IRBs; voluntary research ethics consultation)

- Discussion: begin with asking those involved (especially communities) which ethical issues are important *to them*.

- Use bioethical principles with place-based communities (Dianne Quigley's presentation)

- Ethics in the Federal Citizen Science toolkit (Lea Shanley's presentation)

Next steps and identifying stakeholders

- Some next steps:

  - Special issue of Citizen Science Association (CSA) Journal (*Citizen Science: Theory and Practice*) in preparation on ethical issues in CS; look for call soon.

  - Future issue of *Narrative Inquiry in Bioethics* will focus on collecting CS participant perspectives plus commentaries (contact me at <u>lrasmuss@uncc.edu</u> if you'd like to participate!)

  - CSA board now working with stakeholders in Environmental Justice to increase collaboration (including shared database of community groups?)

  - Participants identified grant opportunities for citizen science, especially ethics

  - CSA Ethics Working Group has developed or will develop: a CS ethics case database; an "ask the ethicist" column; and a 'help' box on the citizenscience.org website.