

Manifesto for Decarbonizing Scholarship and Research

*Education for Planetary Futures Learning
Futures Collaborative*¹



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¹ Primary drafters (alphabetical): Dilraba Anayatova, Victoria Desimoni, Janna Goebel, Michelle Jordan, Carrie Karsgaard, Sandra Nabulega, Ann Nielsen, Rajul Pandua, Iveta Silova, Charlotte Simunek, Andrea Weinberg; Reviewers/contributors (alphabetical): Kelvin Arthur, Cala Coats, Hang Duong, Gustavo Fischman, Adriene Jenik, Jordan King, Nicole Oster.

Manifesto for Decarbonizing Scholarship and Research

1. Preamble and Summary

The ways in which we pursue our teaching, learning, service, and research (i.e. our scholarship) create significant carbon emissions. We aspire to do better - to minimize the carbon emissions directly and indirectly produced as part of conducting our scholarship. We recognize that this aspiration requires individual action as well as institutional and systemic change. We have outlined a series of actions we can take as individuals and institutions. Our goal is an inclusive, supportive, and ongoing movement that advances our individual and collective responsibility for a decarbonized future. We invite you to join us.

The leading cause of climate change is fossil fuel emissions. Increasingly, higher education and research institutions are creating climate commitments to safeguard the future of the planet and people. Decarbonization of research is necessary to meet these commitments.

Decarbonizing refers to the process of reducing carbon dioxide (CO₂) emissions that result from human activities. In relation to research, it's about making choices at every step of the research and knowledge mobilization processes.

2. Call to Action

We seek to join with the broad higher education community (including full-time and part-time faculty, graduate and undergraduate students, staff and administrators) as well as scholars inside and outside of academia to build an inclusive, supportive, and ongoing movement that advances our individual and collective responsibility for decarbonized scholarship. We invite you to join us in creating that movement through your own actions, our collective support for one another, and our combined efforts to support our universities in implementing policies and practices that support and reward decarbonized scholarship.

3. Who We Are

This effort was spearheaded by members of the [Education for Planetary Futures Learning Futures Collaborative](#) at Arizona State University. We are a multigenerational and multidisciplinary group of scholars and educators active in social science and/or education research and practice. We are committed to advancing our own efforts – and broader efforts within our institutions – to reduce or eliminate carbon emissions associated with academic and scholarly research activities.

We believe that education plays a key role in moving toward sustainable and equitable futures, and the decarbonization of education scholarship has a critical role to play. It is unfortunate that the ways we conduct that scholarship contribute to the problem we are trying to solve,

and we commit to minimize our contributions. We also recognize, as educators, that we have a unique opportunity to model, with our scholarship, the very practices, behaviors, and approaches that we seek to advance through our scholarship. We see ourselves as advocates, with the goal of bringing research about the decarbonization of education systems to bear on those systems of which we are a part. To put it simply, we aspire to do no additional harm to the planet and ourselves in our work, and instead to heal the planet and ourselves.

4. Foundations to Build On

There is much good work to build on in our effort to decarbonize scholarship

As education scholars, we are inspired by our colleagues within social sciences, natural sciences, and technological fields and their ongoing actions to decarbonize research. Our colleagues have reduced travel, minimized their [labs' carbon emissions](#), increased the efficiency of their numerical models, shifted toward renewables, [reduced their use of toxic chemicals in laboratories](#), [created alternative modes of collective research](#), [centered relationality and the importance of long term connections to place](#), and more.

We are inspired by the efforts of young individuals who are actively combating climate change worldwide. Contemporary youth across the world are increasingly alarmed about the future of our shared home planet, which must endure the repercussions of prior generations' actions. It is imperative that we commit to collaboration with youth to foster a more sustainable Earth.

5. Guiding Principles

- Scholars and Institutions of Higher Education can reduce their carbon impact across research - which we recognize is often interconnected with teaching and service.
- Campus decarbonization occurs through actions of physical and social infrastructuring. For example, viable alternatives to high-emissions travel exist, but taking advantage of those alternatives requires that they be accessible, safe, convenient, and culturally acceptable.
- Cultural shifts in academia are necessary to contribute to decarbonization efforts.
- Incentivising responsible, respectful, collaborative local research can contribute to decarbonisation efforts.
- Decarbonization and equity should be complementary, not competing goals. Decarbonization should ensure all communities can thrive, including non-human and more-than-human communities and communities who will come after us in time.

6. Intended and Suggested Actions

In this section, we outline our commitments and suggest actions for our higher-education institutions. In accordance with evidence that decarbonization requires both individual action and systemic and institutional changes, we outline action for ourselves as individuals and for our institutions.

6.1 Localizing Scholarship

As individual scholars, we will lower our carbon emissions by localizing our scholarship. We commit to the following actions:

- Prioritize research dissemination with local community organizations and businesses (i.e. playhouses, museums, gardens, and schools).
- Re-invigorate local research conference attendance and participation.
- Encourage and build local partnerships for all research. This would both create a collaborative research culture in international contexts and reduce travel needs for data collection.
- Value the multiplicity and diversity of local knowledges, which leads to more nuanced and contextually relevant findings and promotes more inclusive, sustainable research informed by and aligned with the specific needs and conditions of local communities.

We ask institutions of higher education to:

- Develop and implement evaluation and promotion practices that recognize forms of expertise revealed and expressed locally, nationally, and internationally. International reputation matters but isn't the most significant indicator of quality scholarship, meaning that expertise isn't only contained in academic practice.
- Facilitate and foster collaboration with local governments, community-based organizations, and industries.
- Create and appropriately fund local networks among graduate students and among proximal institutions (universities, colleges, community organizations) for collaboration, peer review/feedback, and graduate student conferences.
- Prioritize research dissemination with local community organizations and businesses (i.e., playhouses, museums, gardens, and schools).
- Re-invigorate local research conferences attendance and participation.
- Establish local hubs that bridge to international organizations to reduce travel.

- Encourage and build local partnerships for all research - this would both create a collaborative culture of research in international contexts and reduce travel needs for data collection.
- Offer adequate compensation for non-academic collaborators.

6.2 Aligning Rewards and Incentives

As individual scholars, we will support, celebrate, and encourage others in their efforts to help build a culture that rewards decarbonization. We commit to the following actions:

- Promote and celebrate research on decarbonization.
- Design academic meetings to allow for robust remote participation and ensure the actual and perceived value of meetings doesn't depend on in-person participation.
- Highlight the decarbonization work of our colleagues in our efforts to support their tenure and promotion.
- Define metrics and criteria for assessing the decarbonization of scholarship.
- Volunteer to work on tenure and promotion policies and advocate for decarbonization as a consideration.

We ask institutions of higher education to support us in these efforts by committing to the following:

- Recognize the value of local and regional conferences in tenure, promotion, and milestones of graduate students and other scholars.
- Align personnel evaluation, including tenure and promotion requirements, with the goals of decarbonization.
- Create incentives for low carbon (or carbon neutral) research and scholarship (e.g., funding, recognized in the standards of academe).
- Create internal research awards across each university.
- Create an interdisciplinary collaboratory of scholars conducting research on decarbonization (educational, social sciences, natural sciences, engineering).

6.3 Developing and Advancing the Ethics of Decarbonized Research

The research process is never devoid of values. Decisions about what is deemed significant to explore, the premises accepted, the approaches employed, the interpretations made, the outcomes shared, and the reactions to these findings are all imbued with values. As such, it is

critical to create and share ethical frameworks for decarbonized research. As individual scholars we commit to the following actions:

- Develop and share decarbonization ethics and goals as part of our scholarship.
- Include an analysis of carbon emissions and decarbonization efforts in our research outputs.
- integrate practices of calculating and estimating energy input and carbon output as part of research methodology courses.

We ask institutions of higher education to:

- Require a statement of carbon emissions and decarbonization efforts as part of the Institutional Review Board process.
- Encourage researchers and students to prioritize decarbonization, recognizing that tenured, permanent, or senior researchers are likely in a more advantageous position to employ decarbonizing strategies.
- Make the tools and resources for understanding carbon emissions widely available.
- Provide tools and resources that students and scholars can use to understand and reduce the carbon emissions of their research activities. For example, connect to renewable energy grids when possible, subscribe to computing and storage providers that use renewable energy, maximize the lifespan of technology devices.
- Continue to learn and understand how climate change and energy transitions are impacting scholars, universities, and communities worldwide. Institutions of higher education should then modify their practices as understandings emerge, with a strong emphasis on the ethics of a just transition and the equitable distribution of energy resources.

6.4 Reducing Carbon Emissions

We must implement practices that result in fewer emissions of pollutants released into the atmosphere. The goal of reducing emissions is to mitigate environmental damage, combat climate change, and improve air quality. As individual scholars, we commit to the following actions:

- Reduce our travel to national and international conferencing
- Power our scholarship with carbonless energy sources (e.g., connect to renewable energy grids when possible, subscribe to computing and storage providers that use renewable energy, maximize the lifespan of your technology]

- Increase our everyday use of public transportation, walking, biking, skateboarding, and/or virtual meetings.
- Minimize plastics use and mitigate all forms of waste through prevention, reduction, recycling, and reuse, there by maximizing the life cycle of products and materials by keeping them in use.
- Eat locally sourced foods and reduce our intake of high-carbon foods (i.e. focusing on plant-based options).

We ask institutions of higher education to:

- Create campus as a living carbon lab with metrics showing carbon output of basic activities (computing, data storage, commuting, food systems, etc.).
- Continue to decarbonize campus transportation, including investing in infrastructure to make human-powered transportation (like walking and biking) safe, convenient, and accessible; creating incentives for people to use low-carbon transportation options and disincentives for high-carbon options; and offering low-carbon transportation alternatives for people with mobility challenges.
- Decarbonize energy and computing, including more solar-powered servers and storage, reducing use of cloud-based storage that uses fossil-fuels.
- Reduce single-use plastics.
- Source local foods insofar as possible.
- Prioritize local vendors.
- Install dishwashers in shared kitchen/break room spaces.
- Disallow the use of plastic utensils and dishes by campus catering and food services.
- Limit the use of high-carbon foods (e.g., focusing on vegetarian and plant-based options).
- Reduce the use of fertilizers on campus and curate natural spaces to make them less water-intensive.
- Offer more small-scale, off-grid solar charging stations for devices.
- Create more covered spaces to work outside.
- Decentralize climate controls (i.e., office temperatures).

- As we transition away from fossil fuels, foreground the implications of energy transition, particularly for those most vulnerable to these shifts (e.g. workers, communities at extractive sites).

6.5 Carbon-neutral Investing, Funding, and Support

As individuals, we will not seek or accept funding from sources that currently profit from fossil fuels or that derive profits from activities that increase the overall levels of atmospheric carbon., and we pledge to work with the university to divest from fossil fuels.

Higher Education Institutions must take a definitive stand by divesting from fossil fuel companies and rejecting research funding or partnerships with entities that contribute to environmental degradation. This action is not only a moral imperative but also a necessary step in aligning academic institutions with the principles of sustainability and social responsibility. By distancing from fossil fuel interests, universities can prioritize research and initiatives that advance clean energy solutions, climate justice, and the long-term well-being of global communities.

In tandem, universities should actively seek partnerships with organizations and funding sources that are genuinely committed to reducing their carbon emissions. This may require investing more time and resources or collaborating with smaller, less prominent organizations, but these efforts should be encouraged. By prioritizing these partnerships, universities can play a crucial role in supporting and advancing research that drives sustainable innovation and promotes climate justice.

7. Invitation and Close

Thank you for your interest in this important work and for learning about our current approach. This is meant as a living document that will grow and improve through expanded and deepened participation, learning, and experience. As noted in our call to action, our goal with hope is that this document can catalyze an inclusive, supportive, and ongoing movement that advances our individual and collective responsibility for decarbonized scholarship. We invite you to join us in creating and capturing that movement in this document.