Fondren Fellows Project

Any questions can be directed to

Name
Shannon Kipphut-Smith

Project Title:
"Curating Rice's Environmental Research"

Description:

What environmental research is the Rice community producing? This project will map existing Rice Research Repository (R3) content to a new environmental research collection. Keywords and other descriptive metadata will be generated with the help of relevant AI (artificial intelligence) tools to increase discoverability and data use.

Project Summary:

What environmental research is the Rice community producing? This project seeks to answer this question by curating existing environmental research in the Rice Research Repository (R-3).

R-3 is a digital publishing platform for campus community members who want to make their scholarship publicly available. R3 accepts a wide variety of content, including conference papers and presentations, theses and dissertations, journal articles, research center publications, and academic journals. Benefits of using R-3 include:

- Discoverability: Content is indexed by search engines such as Google and Google Scholar. Fondren staff support robust metadata creation, which further enhances discoverability. Rice departments, centers, and institutes can create customized collections to highlight all of their research in one place.
- Citation and attribution: All content in R-3 receives a persistent URL. DOIs are available upon request.
- Long-term preservation and access: Fondren Library is committed to maintaining R-3, with content regularly backed-up as part of its preservation plan.

Fondren Digital Scholarship Services staff believe there is a large amount of environmental scholarship in R-3, but it is currently spread across multiple collections. In addition, inconsistent use of keywords and other metadata makes it difficult to find works with a shared focus. This project will establish a new environmental research collection in R-3. The initial focus of the work will be to identify existing environmental research in R-3 and map it to the new collection. Keywords will be added and/or refined to increase discoverability and data use. This work will be done, in part, with AI tools that have been identified by members of the DSpace (open source software the R-3 uses) community and in consultation with additional library staff. If time permits, additional scholarship will be identified and collected.

We hope that this new R-3 collection will serve several purposes, including:
- Highlighting the broad range of environmental work being done across campus and disciplines
- Serve as a local dataset for those interested in identifying shared research interests, possible collaborators, etc.
- Align with the library and university's efforts to increase support for environmental research
- Increase the visibility and access to environmental research not published elsewhere
- Demonstrate the role of open access in supporting climate justice work, research transparency and reproducibility, and rapid communication of research results
- Demonstrate a commitment to highlighting diverse forms of environmental research, encouraging additional partnerships with campus researchers, centers/institutes, and community groups

The scope of work for this project is designed to be completed by one Fondren Fellow and mentor by the end of the spring semester 2025.

Outline the key tasks that the Fondren Fellow(s) would work on.

Fall 2024:
- Scope criteria for inclusion in new collection
- Systematically review existing R3 collections for environmental research
- Map identified works to new collection
- Document project procedures and collection guidelines

Spring 2025
- Clean up existing metadata for items in collection
- In coordination with relevant library staff, test AI tools for the creation of additional keyword metadata; seek feedback from campus subject experts on accuracy
- Document project procedures and collection guidelines
- Draft final report, outlining project activities and providing recommendations for additional work

Qualifications:

- An interest in environmental research and open science/open scholarship
- Experience, or interest in, using AI tools
- Ability to work independently and as part of a team
- Ability to meet deadlines

What would students learn through their participation in this project?

- Digital curation concepts and best practices
- Responsible use of AI to help answer a research question/problem
- Open science/open scholarship practices
- Research communication and documentation