George A. Smathers Libraries, University of Florida

# Planning for Open Grants: Fostering a Transparent and Accessible National Research Proposal Infrastructure

The George A. Smathers Libraries at the University of Florida (UF) seeks \$86,145 over 18 months to: (1) convene diverse groups of stakeholders so that a multifaceted research ecosystem is represented throughout the planning process; (2) investigate the scale of challenges and solutions in establishing an open grants repository; and (3) develop a metadata schema and aggregation plan for organizing grant proposals. Although open practices have increased transparency in many aspects of research, such as publications (e.g. open access and preprints), statistical analyses (e.g. code-sharing practices and platforms), and materials (e.g. data repositories, reporting standards), the research funding ecosystem remains largely opaque.

### A. Statement of Need

Securing funding is a critical part of the research process and can occupy a substantial amount of researcher time. Yet grant proposals are generally not recognized as citable scholarly outputs, even when they include detailed literature reviews. This inaccessibility is challenging for researchers seeking to explore proposals as objects documenting the questions, methods, sources, and labor that shape a research endeavor over time (Brennan, 2012; Collins, 2019). Although principal investigators (PIs) and funders sometimes post full proposals to websites or scholarly repositories, access is piecemeal and varies depending on individual and institutional norms. And though the sharing of grant documents via informal networks can benefit researchers in developing their own proposals, this practice can also reinforce academic inequities by limiting access to this tacit knowledge to a narrow audience. An open repository of grant proposals will promote their recognition as scholarly products, bringing transparency to this aspect of the research process and improving access to these materials for both the public and other researchers. It also has the potential to expose hidden assets that are invaluable for building collaborations, asset-mapping, and overall community development (de Farber, 2016).

Funding will enable engagement with a diverse cadre of advisors, including domain experts, grants professionals, technologists, and other key stakeholders. This phase is indispensable to ensuring the project complements and builds upon related work, including <a href="mailto:Grants@UF">Grants@UF</a>, which is led by advisor Bess de Farber and shares ~400 proposals voluntarily submitted by PIs to the Smathers Libraries; and <a href="mailto:Open Grants">Open Grants</a>, a crossdisciplinary portal co-developed by PI Hao Ye containing ~200 proposals. The project will also facilitate reflection upon concerns and obstacles to sharing from the outset (<a href="mailto:Gurwitz et al., 2014">Gurwitz et al., 2014</a>).

# **B.** Project Design

The team is seeking a broad range of perspectives on the research funding landscape; to date we have confirmed participation interest from Liz Vu (Sloan Foundation), Christa Williford (Council on Library and Information Resources), Miguel Asencio (Digital Library of the Caribbean), Danielle Robinson (Code for Science & Society), Jason Rhody (Social Science Research Council), and Sara Mannheimer (Montana State University). Bringing this broad range of perspectives together to inform planning and initial prototyping will help lay a foundation for collaborative future implementation of a national open grants repository.

Led by Reproducibility Librarian Hao Ye (a former STEM postdoctoral researcher) and Scholarly Communications Librarian Perry Collins (a former grants program officer), the project team will develop a pilot digital infrastructure to archive and share proposal documents and metadata for grants and fellowships. Project deliverables include a specification of the data model and metadata schema, outreach plans, identification of key partners, and a budget and timeline for implementation of a pilot repository. Recruited UF graduate students will undertake key activities throughout the project, including community engagement, project documentation, and technical support.

Phase 1 (Aug. 2021-Feb. 2022): The project will launch with a 1.5 day in-person advisory group meeting (to be held in the first quarter of the project, CDC travel guidelines permitting). Participants will define the potential scope for an initial repository along axes such as disciplinary coverage and funding program, and will document mechanisms and partnerships for creating communitywide buy-in, including likely obstacles. Subsequent remote meetings with selected advisors will sustain exploration of specific topics such as semi-automated ingest workflows and ethical or privacy-related considerations in sharing.

George A. Smathers Libraries, University of Florida

Phase 2 (Feb.-Oct. 2022): Metadata Librarian Xiaoli Ma and Data Management Librarian Plato Smith from UF will lead work to prototype a data model and metadata schema suitable for grant proposals, following FAIR and SF DORA principles. This work will include an environmental scan, primarily conducted by a graduate student assistant, of other repositories or registries that may contain funding proposals to determine how best to aggregate and normalize existing descriptive metadata.

Concurrently with the creation of this schema, the project team will engage in remote facilitated discussions and initial prototyping with targeted, discretely scoped communities in three topic areas:

- Graduate and postdoctoral fellowships, especially in STEM disciplines;
- Caribbean studies, especially in humanities and social science disciplines; and,
- Galleries, libraries, archives, and museums, particularly in academic settings.

These categories offer starting points that leverage the expertise of our team, representing communities with which we have established partnerships or where the sharing of grant proposals is already common practice on informal or small scales. As case studies for the final project roadmap, these will broaden the project stakeholder community. Prototyping will involve Application Developer Analyst Chris Nicolich, and expand on the capabilities of existing proofs of concept.

*Phase 3 (Nov. 2022-Jan. 2023):* The final phase of the project will focus on refining and circulating project deliverables for public review and comment. The team will conduct individual interviews with advisory group members and selected participants from the targeted community conversations to provide additional feedback and to identify action items for future work.

## C. Diversity Plan

Including a wide range of stakeholders in the planning process will ensure that the outcomes address researcher needs across various axes of diversity and lived experiences, including racial, ethnic, and gender identities, as well as geographical location, career stage, and research domain. Meetings and technical development will adhere to standards of accessibility and universal design. To ensure inclusion and equitability in the planning process, the budget requests funding for travel and honoraria for participants recruited through an open call for participants for remote conversations. Graduate student support will follow the Libraries' established internship model, including attention to professional development and meaningful integration into the project team.

## D. Projected National Impact

The project team will prioritize documentation and dissemination of outputs during and after the grant period, including (1) the production of an environmental scan of immediately available artifacts for aggregation; (2) a report detailing community feedback, including obstacles and solutions; and (3) a plan for a pilot digital infrastructure, that will serve as a blueprint to build interest and guide future work. The cultivation of partnerships with organizations enables these key stakeholders to fulfill multiple roles: contributing materials, promoting the repository prototype to their own users (researchers and/or potential grant applicants), and guiding the creation of the repository as a valuable service warranting sustained support. Finally, an open grants repository will broaden access to grant and fellowship proposals, thereby increasing equitability and accessibility to implicit knowledge associated with writing and structuring grant materials, and shifting norms to recognize grant proposals as research products and to support a more transparent and ethical environment.

### E. Budget Summary

The budget will include direct support for graduate students for 800 hours over the grant period at \$20/hour, totaling \$36,866 in wages and fringe. Travel costs (estimated at \$1,000/person) and consultant honoraria (\$1,000/person) for 10 external advisor-partners will total \$20,000. Core UF personnel will also be supported for conference outreach travel estimating \$8,100. Requested support, including IDC at a 32.6% rate, totals \$86,145. Cost share for salary/fringe benefit contributions of the PI (Ye), co-PI (Collins), and all UF personnel contributing metadata, data curation, and disciplinary expertise totals \$25,937.