Project Proposal

For more information or guidance please see the host requirements, project examples and project characteristics as found on the NDSR website.

c/o George Coulbourne
ndsr@loc.gov | www.digitalpreservation.gov/ndsr

Date Submitted

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Submitted by:

[redacted]

Project Proposal Title

Bringing life to research objects: managing the digital lifecycle of research from creation to stewardship through the Open Science Framework and SHARE.

Project Summary
(provide 2-3 sentences summarizing the project)

Using the deep connections of the SHARE project team and the Association of Research Libraries (ARL) mentors ([redacted]), the fellow will identify and work with a scholarly research unit (e.g., university lab, center) at the George Washington University (GW) to use the Open Science Framework (OSF) as its research workflow application to generate content that will be captured by SHARE and the unit's library. This project, spanning the entire lifecycle of digital assets, will include an integration component with DSpace@GW, the local repository used for the stewardship of the unit's research objects. The Resident will prototype how one research unit can increase the accessibility of cross-vertical research objects by linking and exposing them through the OSF and SHARE.

Specific Goals and Objectives
(identify goals and objectives to be completed by end of residency)

1) The Resident will leverage the relationships and community SHARE has already built, and begin by prioritizing and selecting one of the many research units or labs within the George Washington University (ARL member libraries also include the Smithsonian Libraries, Georgetown University, Howard University, the University of Maryland, the National Library of Medicine, the National Archives and Records Administration, and the National Agricultural Library) that is using or wants to use the OSF to manage research workflow.

2) The fellow will work with the research unit to consider metadata needs, data management planning, and preservation.

3) The fellow will work with the associated library or repository to facilitate integration of the DSpace@GW repository into the OSF and SHARE.

Timeframe and Deliverables
(provide a quarterly breakdown of assignments and deliverables necessary to complete objectives)

-September–October 2016: Resident immersion in OSF and SHARE on the development side; research reproducibility education/training remotely and through in-person visits to COS.
-November 2016–December 2016: Investigate potential research units, prioritize services, select research unit. Establish partnership with institutional library.
-January 2017–ongoing: Embed services in research unit; understand research practices, data sharing culture, and data management. In partnership with local library staff if appropriate, create metadata and documentation to support research activities.
-February 2017–March 2017: In partnership with repository managers, investigate technical requirements for repository integration with OSF and SHARE.
-April 2017–ongoing: Implement technical development for repository integration with OSF and SHARE.
-September 2017: Document, disseminate and publicize integration and work as a model or prototype that can be expanded.

Resources Required
(identify any resources necessary to complete the project)

Travel between DC and Charlottesville (4 times over 12 months)

Context
(provide a narrative statement explaining the project – no more than 500 words)

Scholarship is increasingly digital, distributed and complex in format and output. A renewed emphasis is placed on researchers by funding agencies, publishers, and academic communities to ensure the rigor of research and the proper management, sharing and preservation of this scholarship. Two initiatives, SHARE and the OSF, have developed to both assist researchers with managing their scholarly workflows and aiding in the curation and linking of research outputs throughout the digital lifecycle. ARL co-leads the SHARE initiative with the Center for Open Science (COS), located 2.5 hours from DC in Charlottesville, VA. Since its beta launch in April 2015, the SHARE data set has grown to over 4.2 million records and 95 providers. The OSF is the larger technological architecture for SHARE, and it is a free, open source web application for managing the entire scholarly research workflow. As a tool for primary investigators the OSF emphasizes 1) integrating with services researchers already use, and 2) encouraging openness, provenance tracking, preservation, discoverability and rich description of research activities and outputs. SHARE is a 2 year old initiative which has many connections to the repository and open source development communities, and acts as de facto repository network by defining recommended practices and guidelines, which may be adopted by local repositories for harvesting. SHARE is committed to involving the community in building SHARE's enhanced data set by teaching technology skills, engaging students to practitioners.

Required Knowledge and Skills of Resident
(identify requirements necessary to successfully complete the project – technical skills, educational background, specialized experience, etc.)

Outreach skills, Knowledge of a repository platform(s) (such as DSpace, Fedora/Hydra, and BePress); Experience or strong interest in programming (Python, Perl, Javascript, other); Excellent communication skills.

Preferred Knowledge or Experience of Resident
(identify preferred knowledge or experience – technical skills, educational background, specialized experience, etc.)

Experience or strong interest in enterprise-level technical development skills