As funders and publishers increasingly implement open research data policies, there has been a concurrent rise in tools and services for research data management (RDM) and data publishing (depositing data to open platforms that make data persistently citable and (re)usable). Related to the rise of these policies and services, RDM has increasingly become a strategic priority for institutions striving to support their researchers. Disciplinary and non-institutional, general data repositories such as Dryad have much higher rates of adoption than Institutional Repositories (IRs) because they are directly integrated with key points in researcher workflows, particularly article publishing. But these repositories do not have relationships that allow them to engage effectively with institutional resources such as librarians and data curators. Meanwhile, there has been a rapid influx of commercial solutions that look to address data requirements associated with funding and publishing.

To combat this trend towards inaccessible costs to support research data services at the institutional level, Dryad and California Digital Library (CDL) are formally partnering to address researcher needs and lead an open, community-supported initiative in research data curation and publishing. To support building broad community support, CDL and Dryad request $87,408 for a for a National Leadership Grant (NLG-L) program National Forum Grant in the National Digital Platform category for an invitational workshop to explore community requirements, identify impediments, and make recommendations regarding the widespread promotion and adoption of effective, scalable, and sustainable institutional data publication infrastructure.

The one-day workshop will be scheduled to coincide with the CNI Fall Membership Meeting (December, 2018) to maximize opportunities for institutional participation. We will also reach out especially to institutions that do not usually have a voice in RDM discussions (HBCUs, non-ARL and CNI institutions). Participants will be selected to include a variety of institutional viewpoints. Through facilitated discussion and breakout sessions, the workshop participants will help us define product features and curation approaches of a new community-led library/institutional Dryad offering.

This project aims to leverage institutions in open data infrastructure that will increase the amount of curated, accessible data available publicly. Our workshop will result in a set of recommendations (detailed below) that, when implemented through follow-on activity, will offer the library community a full service, open source, low cost data publishing platform that can be used as a standalone solution or in coordination with existing IR strategies. This workshop will facilitate a community of concern around the institutional role and the sustainability of open data infrastructure in light of rising commercial threats and it will also galvanize the community to address low adoption of open data practices. The project will provide insight into institutional needs and future services that can more effectively provide public access to research.

1. Statement of Need

As funders and publishers increasingly implement open research data policies, there has been a concurrent rise in tools and services for research data management (RDM) and data publishing (depositing data to open platforms that make data persistently citable and (re)usable). Related to the rise of these policies and services, RDM has increasingly become a strategic priority for institutions striving to support their researchers. As a result, many institutions provide Institutional Repositories (IRs) for local management of article PDFs and, increasingly, research data. There is also a growing trend toward offering data consulting and curation services, usually based in the library. Unfortunately, the low rates of adoption/use of IRs[1] and lack of awareness among researchers about local RDM services suggest that institutional investment in RDM needs a strategic overhaul. Disciplinary and non-institutional, general data repositories such as Dryad have much higher rates of adoption than IRs because they are directly integrated with researcher workflows at key points, particularly article publishing. Dryad, which began from a group of concerned researchers, and continues to be a research and community supported repository, has had success because of its known and trusted name in the research community. This has allowed for great adoption rates (~90 submissions a day) that institutionally-focused repositories do not see. However, these non-institutional repositories do not have relationships that allow them to engage effectively with institutional resources such as librarians and data curators. Better coordination between institutions and repositories is essential for achieving open data policy goals by ensuring that researchers follow best practices and their outputs are preserved and reusable.

Meanwhile, there has been a rapid influx of commercial solutions that look to address data requirements associated with funding and publishing. As more researchers become aware of these tools that meet their immediate needs, the research community risks losing control of and access to research data (in the same manner as published articles). In recent years, for-profit companies have launched offerings such as Digital Science's figshare for institutions[2], Springer-Nature's Research Data Support Service[3], and Elsevier's Mendeley Institutional Edition[4]. These are aimed at commercializing the data sharing space with costs to institutions ranging from fee-for-service pricing to

[1] Multiple Sources: http://cameronneylon.net/blog/the-trouble-with-institutional-repositories/, http://www.dlib.org/dlib/march07/davis/03davis.html, and https://oda.hioa.no/en/researchers-attitude-to-using-institutional-repositories-a-case-study-of-the-oslo-university-institutional-repository-duo/asset/dspace:1228/Alemayehu_MulukenWubayehu.pdf

[2] https://www.digital-science.com/press-releases/figshare-for-institutions-solving-the-research-data-management-problem-for-educational-research-institutions/

[3] https://www.springernature.com/gp/open-research/institutions/research-data-services

[4] https://www.mendeley.com/reference-management/institutional-edition

annual subscription fees in the hundreds of thousands of dollars. These are costs that academic institutions cannot and should not accept. Beyond the costs, the risk of buying into the commercial space for data is losing access. While these systems may promote open data practices, they themselves are built on closed and private infrastructure that may lead to future barriers and costs to privacy and reporting.

To combat this trend towards inaccessible costs to support research data services at the institutional level, Dryad and California Digital Library (CDL) are formally partnering to address researcher needs and lead an open, community-supported initiative in research data curation and publishing. This partnership is focused on combining CDL's institutional relationships, expertise, and nimble technology with Dryad's position in the researcher community, curation workflows, and publisher relationships. By working together, we will create global efficiencies and minimize needless duplication of effort across institutions, freeing up time and funds, and, in particular, allowing institutions with fewer resources to support research data publishing and ensure data remain open.

CDL and Dryad both have long-standing interest and experience in RDM and data publishing. CDL's digital curation team, the University of California Curation Center (UC3), provides digital preservation, data curation, and data publishing services, and has a history of coordinating collaborative projects regionally, nationally, and internationally. CDL also has a long history of strategic partnerships to better promote and amplify the impact of initiatives in the library, open research, and data management spaces (e.g., DMPTool, EZID, HathiTrust). However, for CDL to effectively grow adoption of data publishing across the UC system, it needs to pivot its approach. Researchers generally think at a disciplinary, rather than institution level. So, like all research institutions, CDL needs to change its approach and start meeting researchers where and how they already work.

Dryad, a general data repository, began as an initiative between journals, researchers, and societies in evolutionary biology that needed a place for their data. Since then it has published data supporting the scholarly literature, expanding to a variety of disciplines with datasets associated with articles from over 600 journals. For nearly ten years, Dryad has been a trusted name in the researcher and publisher communities and is expert at building researcher-focused, cross-disciplinary approaches to data curation and data publishing. However, a lack of prior relationships to institutions and the cumbersomeness of the underlying Dryad technology have limited the growth of Dryad's institutional partnerships.

A partnership between CDL and Dryad will leverage each organization's strengths. The open data space requires innovation and as such we will be integrating into researcher

workflows and building a viable product to address commercial threats. This will help bring value by building broad, sustainable, and productive approaches to data curation. With both CDL and Dryad's expertise, the partnership will be able to offer:

1) Researchers- a higher level of curation service and integration into their normal workflows
2) Publishers- enhanced technical integrations and more comprehensive curation services
3) Institutions- a globally-accessible, community-led, low-cost alternative to commercial products that focuses on breaking down silos between publishing, libraries, and research.

But, we can not do this alone. For our partnership to effectively leverage institutional knowledge and serve researchers as end users, more and varied types of institutions need to have a say in the values and goals of the partnership. To support building broad community support, CDL and Dryad request $87,408 for a National Leadership Grant (NLG-L) program National Forum Grant in the National Digital Platform category for an invitational workshop to explore community requirements, identify impediments, and make recommendations regarding the widespread promotion and adoption of effective, scalable, and sustainable institutional data publication infrastructure.

Our workshop will bring together members of the library community to investigate and identify institutional needs and interests. Our goal is to have a community of like-minded institutions help us define the product features, curation approaches, price points, etc. of a new community-led library/institutional Dryad offering. While work is already underway between Dryad and CDL to move Dryad onto the CDL-hosted technology platform, this workshop will be a source of requirements gathering and community input into our longer-term partnership roadmap and business models. The discussions and requirements that come out of the workshop will act as guidance for the continued development of our services. The outputs of the workshop will be a set of features and community-developed sustainable business models for adoption of a collaborative data publishing platform that integrates data curation/stewardship more closely into researcher workflows. These outputs (both feature requirements and business models) will be integrated into the Dryad and CDL roadmap.

2. Project Design

Our goal for this community meeting is to gain institutional buy-in and build community support around open, accessible, research data publishing and curation. The implementation of these recommendations will enhance the CDL-hosted Dryad service, resulting in:

- A community agreed-upon plan for the service (including required features and desired price point)
- An increase in the institutions joining Dryad's new data curation and publishing service
- An increase in the amount of open data available to the national scholarly community, through streamlined interfaces and integrations with publication workflows
- An increase in the and access to and impact of that data, through the curation enhancement and proactive preservation management of individual datasets
- A right-sized, community-defined, open source data publishing option as an institution's sole data IR offering or as a supplement to existing data IRs

Planning and Preparation

Planning for this forum is broken into two segments: outreach and technical. For outreach and community needs gathering, CDL and Dryad will compile a list of institutions (ranging in size, focus, and resources) that should be invited to the forum. In addition to extending invitations, CDL and Dryad also will engage with institutions ahead of time to get their input on the contents of the workshop. This will help refine the agenda and desired outcomes.

For technical planning, the CDL and Dryad teams have been and will be working together to map the technical capabilities (e.g., types of login, preservation strategies, workflow integrations) that could be offered to institutions and researchers. The partnership team will be presenting the updated Dryad (on CDL technology) service to the community at the meeting. This will include a presentation on researcher needs as gathered from Dryad users and UC researchers as well as a walk through the Dryad service for those not familiar with it, and a look at the product roadmap.

The Workshop

The one-day workshop will be scheduled to coincide with the CNI Fall Membership Meeting (December, 2018) to maximize opportunities for institutional participation. We will also reach out especially to institutions that do not usually have a voice in RDM discussions (e.g., Historically Black Colleges and Universities [HBCUs], liberal arts colleges, smaller or less research-intensive institutions), who will be offered full travel stipends to encourage their participation. Participants will range from those in the laboratory to the Library to the Office of Research to Research IT to reflect the diverse nature and positioning of institutional decision-making. Participants will also be selected to include a variety of institutional configurations: those that do not have existing IRs, those that have homegrown IRs, and those that are relying upon commercial

alternatives. Through facilitated discussion and breakout sessions, the workshop participants will:

- Identify **institutional values** (perceived from the perspectives of Librarians, Vice Chancellors for Research, CIOs, and Data Curators) in curatorial and preservation services
- Identify and refine the requirements necessary to garner active **institutional support for and adoption of an open source, open data publication service** as a trusted and affordable alternative to commercial products
- Identify **sustainable business and governance models** for these services
- Produce a set of requirements for the community for how non-institutional data repositories like Dryad can **work with and support institutions**
- Develop strategies to **engage the library community** and increase the role of libraries in RDM workflows

Example topics of interest for workshop participants:

- **Curation services**
- **DOI management**
- **Preservation**
- **Institutional branding**
- **Price point**
- **Governance**
- **Outreach**

Project Deliverables

Deliverable 1: Requirements gathered from researchers (end-users) across various disciplines (planning phase) to be presented at one-day workshop
Deliverable 2: Community meeting resulting in agreed upon-needs, values, and priorities for an open and accessible set of data publishing and curation services
Deliverable 3: Report of findings, conversations, and future directions for the community

3. Diversity Plan

To build an effective community between institutions, researchers, repositories, publishers, and other research stakeholders, it is imperative that we focus on participation of underrepresented populations, institutions with limited resources, institutions that do not join CNI/ARL, and HBCUs who do not have as many resources to develop or purchase their own solutions. Success is only possible if all stakeholders in the research community are represented and there is not just a focus on large, well-funded institutions. Our forum is intended to bring together voices from each of these

communities, equally, to facilitate conversation about institutional needs and how best we as a community can band together to create an accessible and effective non-commercial set of data services. Participants from historically under-representation institutions will receive full travel support to encourage participation.

Project Resources: Personnel, Time, Budget

Project Team

Günter Waibel, UC Associate Vice Provost and Executive Director, CDL, will serve as PI and oversee all aspects of the project from setting priorities to ensuring successful completion. Waibel is a founding member of the DMPTool project from his previous role at the Smithsonian Institution and is deeply familiar with data management policies, infrastructure, and challenges from a variety of institutional perspectives.

John Chodacki, Director of the University of California Curation Center (UC3) at California Digital Library (CDL), works across the UC campuses and the broader community to ensure that CDL's digital curation services meet the emerging needs of the scholarly community, including digital preservation, data management, and reuse. In addition, John represents CDL in the global research community (funders, libraries, archives, publishers, researchers) and defines and prioritizes new and improved services for UC3.

Stephen Abrams, Associate Director of the UC Curation Center, with responsibility for strategic planning, innovation, and technical oversight of the Center's systems, services, and initiatives.

Daniella Lowenberg, Research Data Specialist, Dash Product Manager, and project lead for Make Data Count at California Digital Library focuses on building adoption and awareness of data publication tools as well as leading cross-organizational efforts in promoting data metrics. She will serve as project coordinator on behalf of California Digital Library.

Elizabeth Hull, Interim Executive Director, Dryad, will serve as project lead on behalf of Dryad. She has overseen operations and the curation program at Dryad for over three years and is also a Co-Principal Investigator on the Data Curation Network Sloan grant.

Budget

We are requesting $87,408 in IMLS funds to support the workshop. This will support a dedicated meeting facilitator ($8,500), provide partial travel support ($20,000) for the 20

invited participants from CNI/ARL-member institutions, full travel support ($25,500) for 15 non-CNI/ARL institutions (HBCUs, liberal arts schools, etc.), full travel support ($10,200) for 6 grant team members, $4,000 for the meeting room, $6,000 for catering, and $13,208 in UC federally-negotiated overhead (17.8%).

Timeline

Phase	**Time Frame**	**Activity/Deliverable**
Planning	Spring-Summer 2018	● Dryad and CDL announcement of partnership ● Partnership technology analysis of limitations and possibilities ● Outreach to institutions ● Development of workshop attendee list ● Researcher needs gathering
Planning	Fall 2018	● Development and transition of Dryad on CDL technology ● Develop workshop agenda ● Technical capabilities and services build-up at Dryad
Workshop	December 12, 2018	41 person workshop following CNI fall member meeting (Dec 10-11)
Implementation & Report	Winter, 2019	● Dissemination of findings ● Implementation of new and enhanced services on the CDL-Dryad platform

Communications Plan

The recommendations of the workshop will be openly published under a permissive CC-BY license and publicized widely through email lists (Dryad member list, University of California Curation Center mailing list, California Digital Library newsletter), blogging (Dryad blog, University of California Curation Center Blog, California Digital Library Info site), and other social media channels (Twitter). It is of utmost importance to us that this forum be a milestone in our efforts to build a community of change and implement desired and accessible services across the research landscape. To do so, we need to ensure that those who could not be included in the forum are included in conversations and caught up on the conversations and outcomes of the meeting. We will also be engaging the community in conversation and reporting out on conversations at conferences beginning Spring, 2018 through the following years at Society for Scholarly Publishing, Open Repositories, Research Data Alliance, FORCE, SciDataCon, CNI, etc. Beyond the conference outlet we will be engaging libraries, office of research and grants, and researchers with calls and institutional visits.

4. Impact

To drive adoption of open research data sharing practices, it is essential that the community bands together to make its open research tools and services more accessible to both researchers and institutions. This project leverages the participation of institutions in an open data infrastructure to increase the amount of curated, accessible data available publicly. Post-workshop, we will disseminate our findings around institutional needs, values, and resources for open data publishing infrastructure. We also will use these community-identified needs and recommendations to guide the continued build-out of an accessible data publishing service available for all institutions.

Our workshop will result in a set of recommendations (detailed below) that, when implemented through follow-on activity, will offer the library community a full service, open source, low-cost data publishing platform that can be used as a standalone solution or in coordination with existing IR strategies. Furthermore, this workshop will facilitate a community of concern around the institutional role and the sustainability of open data infrastructure in light of rising commercial threats. It also will galvanize the community to address the endemic problem of low adoption of open data best practices[5]. The project will provide insight into institutional needs and future services that can more effectively provide persistent public access to research. All outputs and

[5] See, for example, Iqbal et al. (2016), https://doi.org/10.1371/journal.pbio.1002333 and Rowhani-Farid and Barnett (2016), https://doi.org/10.1136/bmjopen-2016-011784 .

recommendations will be disseminated freely and publicly, as research and data publishing are global in scope. Beyond the meeting, we intend to continually engage institutional stakeholders by checking in on changing requirements and values in the institutional space and iterating on the Dryad product with their feedback.

	Pre-Workshop	October, 2018	November, 2018	December, 2018	January, 2019	February, 2019	March, 2019
CDL & Dryad Announcement of Partnership							
Partnership technology analysis of limitations and possibilities							
Outreach to institutions							
Development of workshop attendee list							
Invite workshop attendees							
Researcher needs gathering							
Development of research needs presentation							
Development and transition of Dryad on CDL technology							
Develop workshop agenda							
Technical capabilities and services build-up at Dryad							
38 person workshop following CNI fall member meeting (Dec 10-11)							
Dissemination of findings							
Continued outreach to institutions who joined workshop							
Implementation of new institutional services on the CDL-Dryad platform							

Color Key

Technical Planning	
Outreach Planning	
Workshop	
Follow Up	

DIGITAL PRODUCT FORM

Introduction

The Institute of Museum and Library Services (IMLS) is committed to expanding public access to federally funded digital products (i.e., digital content, resources, assets, software, and datasets). The products you create with IMLS funding require careful stewardship to protect and enhance their value, and they should be freely and readily available for use and re-use by libraries, archives, museums, and the public. However, applying these principles to the development and management of digital products can be challenging. Because technology is dynamic and because we do not want to inhibit innovation, we do not want to prescribe set standards and practices that could become quickly outdated. Instead, we ask that you answer questions that address specific aspects of creating and managing digital products. Like all components of your IMLS application, your answers will be used by IMLS staff and by expert peer reviewers to evaluate your application, and they will be important in determining whether your project will be funded.

Instructions

Please check here if you have reviewed Parts I, II, III, and IV below and you have determined that your proposal does NOT involve the creation of digital products (i.e., digital content, resources, assets, software, or datasets). You must still submit this Digital Product Form with your proposal even if you check this box, because this Digital Product Form is a Required Document.

If you ARE creating digital products, you must provide answers to the questions in Part I. In addition, you must also complete at least one of the subsequent sections. If you intend to create or collect digital content, resources, or assets, complete Part II. If you intend to develop software, complete Part III. If you intend to create a dataset, complete Part IV.

Part I: Intellectual Property Rights and Permissions

A.1 What will be the intellectual property status of the digital products (content, resources, assets, software, or datasets) you intend to create? Who will hold the copyright(s)? How will you explain property rights and permissions to potential users (for example, by assigning a non-restrictive license such as BSD, GNU, MIT, or Creative Commons to the product)? Explain and justify your licensing selections.

The copyright in all content produced in this project (i.e., final recommendations, summarizing communication) is held by the Regents of the University of California but will be made freely and publicly available under a permissive Creative Commons Attribution (CC-BY) license.

A.2 What ownership rights will your organization assert over the new digital products and what conditions will you impose on access and use? Explain and justify any terms of access and conditions of use and detail how you will notify potential users about relevant terms or conditions.

While ownership rights are held by the Regents of the University of California, all products will be freely and publicly distributed under a permissive Creative Commons Attribution (CC-BY) license,

A.3 If you will create any products that may involve privacy concerns, require obtaining permissions or rights, or raise any cultural sensitivities, describe the issues and how you plan to address them.

No products involving privacy concerns will be created.

Part II: Projects Creating or Collecting Digital Content, Resources, or Assets A. Creating or Collecting New Digital Content, Resources, or Assets

A.1 Describe the digital content, resources, or assets you will create or collect, the quantities of each type, and format you will use.

We will create and disseminate a synopsis of the workshop, a gathering of institutional needs and values, the prioritized features, research needs and priorities, and social media communication (Twitter, CDL blog, Dryad blog)

A.2 List the equipment, software, and supplies that you will use to create the content, resources, or assets, or the name of the service provider that will perform the work.

All required equipment is currently owned by the University of California and will not need to be purchased.

A.3 List all the digital file formats (e.g., XML, TIFF, MPEG) you plan to use, along with the relevant information about the appropriate quality standards (e.g., resolution, sampling rate, or pixel dimensions).

We will disseminate our information in PDF format. We will offer web-based project updates using standard web conventions (HTML).

B. Workflow and Asset Maintenance/Preservation

B.1 Describe your quality control plan (i.e., how you will monitor and evaluate your workflow and products).

Our findings are based on input from the workshop attendees and will be reviewed by the workshop team prior to widespread circulation for open comment by the community.

B.2 Describe your plan for preserving and maintaining digital assets during and after the award period of performance. Your plan may address storage systems, shared repositories, technical documentation, migration planning, and commitment of organizational funding for these purposes. Please note: You may charge the federal award before closeout for the costs of publication or sharing of research results if the costs are not incurred during the period of performance of the federal award (see 2 C.F.R. § 200.461).

Workshop findings will be archived in the Merritt preservation repository (which gives a citable DOI), and posted publicly on the University of California Curation Center and Dryad websites.

C. Metadata

C.1 Describe how you will produce any and all technical, descriptive, administrative, or preservation metadata. Specify which standards you will use for the metadata structure (e.g., MARC, Dublin Core, Encoded Archival Description, PBCore, PREMIS) and metadata content (e.g., thesauri).

Descriptive, technical, or preservation metadata is not applicable to the project products, which are textual recommendations and outreach communications.

C.2 Explain your strategy for preserving and maintaining metadata created or collected during and after the award period of performance.

N/A

C.3 Explain what metadata sharing and/or other strategies you will use to facilitate widespread discovery and use of the digital content, resources, or assets created during your project (e.g., an API [Application Programming Interface], contributions to a digital platform, or other ways you might enable batch queries and retrieval of metadata).

N/A

D. Access and Use

D.1 Describe how you will make the digital content, resources, or assets available to the public. Include details such as the delivery strategy (e.g., openly available online, available to specified audiences) and underlying hardware/software platforms and infrastructure (e.g., specific digital repository software or leased services, accessibility via standard web browsers, requirements for special software tools in order to use the content).

Project recommendations and activity summaries will be provided to all meeting participants and distributed widely through mailing lists and social media channels (Twitter, CDL blog, Dryad blog).

D.2 Provide the name(s) and URL(s) (Uniform Resource Locator) for any examples of previous digital content, resources, or assets your organization has created.

CDL blog, https://uc3.cdlib.org/
Dryad blog, https://blog.datadryad.org/

Part III. Projects Developing Software

A. General Information

A.1 Describe the software you intend to create, including a summary of the major functions it will perform and the intended primary audience(s) it will serve.

No software will be created by this project.

A.2 List other existing software that wholly or partially performs the same functions, and explain how the software you intend to create is different, and justify why those differences are significant and necessary.

N/A

B. Technical Information

B.1 List the programming languages, platforms, software, or other applications you will use to create your software and explain why you chose them.

N/A

B.2 Describe how the software you intend to create will extend or interoperate with relevant existing software.

N/A

B.3 Describe any underlying additional software or system dependencies necessary to run the software you intend to create.

N/A

B.4 Describe the processes you will use for development, documentation, and for maintaining and updating documentation for users of the software.

N/A

B.5 Provide the name(s) and URL(s) for examples of any previous software your organization has created.

N/A

C. Access and Use

C.1 We expect applicants seeking federal funds for software to develop and release these products under open-source licenses to maximize access and promote reuse. What ownership rights will your organization assert over the software you intend to create, and what conditions will you impose on its

access and use? Identify and explain the license under which you will release source code for the software you develop (e.g., BSD, GNU, or MIT software licenses). Explain and justify any prohibitive terms or conditions of use or access and detail how you will notify potential users about relevant terms and conditions.

N/A

C.2 Describe how you will make the software and source code available to the public and/or its intended users.

N/A

C.3 Identify where you will deposit the source code for the software you intend to develop: Name of publicly accessible source code repository:
URL:

N/A

Part IV: Projects Creating Datasets

A.1 Identify the type of data you plan to collect or generate, and the purpose or intended use to which you expect it to be put. Describe the method(s) you will use and the approximate dates or intervals at which you will collect or generate it.

No datasets will be collected or generated by this project.

A.2 Does the proposed data collection or research activity require approval by any internal review panel or institutional review board (IRB)? If so, has the proposed research activity been approved? If not, what is your plan for securing approval?

N/A

A.3 Will you collect any personally identifiable information (PII), confidential information (e.g., trade secrets), or proprietary information? If so, detail the specific steps you will take to protect such information while you prepare the data files for public release (e.g., data anonymization, data suppression PII, or synthetic data).

N/A

A.4 If you will collect additional documentation, such as consent agreements, along with the data, describe plans for preserving the documentation and ensuring that its relationship to the collected data is maintained.

N/A

A.5 What methods will you use to collect or generate the data? Provide details about any technical requirements or dependencies that would be necessary for understanding, retrieving, displaying, or processing the dataset(s).

N/A

A.6 What documentation (e.g., data documentation, codebooks) will you capture or create along with the dataset(s)? Where will the documentation be stored and in what format(s)? How will you permanently associate and manage the documentation with the dataset(s) it describes?

N/A

A.7 What is your plan for archiving, managing, and disseminating data after the completion of the award-funded project?

N/A

A.8 Identify where you will deposit the dataset(s):
Name of repository:
URL:

N/A

A.9 When and how frequently will you review this data management plan? How will the implementation be monitored?

N/A