Plan Overview

A Data Management Plan created using DMP Tool

Title: RCN: INTERACT: An Incubator to Enable Scalable Education Equity Research with Terracotta

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Copyright information:

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RCN: INTERACT: An Incubator to Enable Scalable Education Equity Research with Terracotta

Roles and responsibilities

Specify the roles and responsibilities of all parties with respect to the DMP activities.

This Data Management Plan was created using the EHR Tempate within DMPTool, in response to the <u>May 20, 2019 NSF Dear Colleague Letter</u> advocating for proposals to be generated by these kinds of tools, to improve transparency, discoverability, and sharing of data management policies.

ROLES AND RESPONSIBILITIES

This Data Management Plan accompanies the proposal, "INTERACT: An Incubator to Enable Scalable Education Equity Research with Terracotta." The plan covers both (1) *Research designs* brainstormed by participants in the incubator; and (2) *Infrastructure designs* generated by participants in the incubator. The steering committee (PIs and Co-PIs) will be responsible for planning network meetings and convenings, and for setting agendas. Staff personnel will be responsible for note-taking, organizing network products, and for sending quarterly updates via email. Network participants will be responsible for sharing research designs and infrastructure designs during network convenings, and staff will record these designs along with the names of network participants who contributed the research idea. It will be the responsibility of all network members to respect authorship of research designs, and to abide by a code of conduct (which articulates ownership and IP) distributed at the network kick off.

Types of data or products

Specify the types of data or products that will be generated (e.g., test scores, survey responses, images, data tables, video or audio data, sftware, curricular or exhibit materials).

TYPES OF DATA OR PRODUCTS

The purpose of the incubator is to collaboratively produce field-identified research needs, and research infrastructure design plans that address these needs. These *ideas* constitute the primary products of the incubator, and will be recorded as notes, diagrams, process outlines, hypothetical uses, technical specifications, and so forth. These ideas will also be annotated with source attribution, and the context of the idea's generation, so that individuals can maintain ownership of their research designs, and can be acknowledged for their contributions to infrastructure plans. A secondary product is the data generated during assessment of incubator activities, including ad-hoc feedback received.

Data storage, preservation, and sharing

Specify how data or products are to be stored, preserved, and shared.

DATA STORAGE, PRESERVATION, AND SHARING

Generated products (in the form of raw notes) will be stored on IU's shared cloud storage system, Microsoft OneDrive, and on Miro, for analysis, organization, and synthesis. Once synthesis is complete, ideas will be communicated in quarterly update emails. Research designs will not be shared publicly -- these will be owned by the incubator members who generated the research idea. Infrastructure design plans will be owned by Indiana University; these will be summarized and will be made publicly available under an open-source Apache 2.0 license after the conclusion of the project, available on GitHub.

Restrictions on data or product storage, access, preservation, or sharing

Specify any restrictions on data or product storage, access, preservation, or sharing

RESTRICTIONS ON DATA OR PRODUCT STORAGE, ACCESS, PRESERVATION, OR SHARING

The research designs generated during the incubator's brainstorming activities will be owned by the incubator members who generated the idea. These will be shared with incubator members, but we may not share their ideas publicly without being given explicit permission to do so. There will be no restrictions on sharing of infrastructure design plans, which constitutes the primary product of the proposed incubator. Results of informal assessments of the incubator, or feedback received from incubator members, will be shared with incubator members, but will not be shared publicly.

Data formats

Specify what data formats will be used (e.g., XML files, websites, image files, data tables, software code, text documents, physical materials).

DATA FORMATS

Source data will include text documents, image files (including photographs of drawn sketches), and summary tables organized in electronic documents (e.g., using Microsoft Office products). These are also the formats of products that are to be shared publicly.

Period of data retention

Specify how long access to data and products, and sharing of data or products, will be maintained after the life of the project, and how any associated costs will be covered and by whom.

PERIOD OF DATA RETENTION

The cost of maintaining the incubator products (a modest number of electronic documents and image files) is trivial and we intend to maintain them for the duration of our careers, across whatever file storage systems are made available at our institution. The infrastructure design plans will be made

available and persistently stored on GitHub, which uses an infrastructure called "Spokes" to retain repositories online in triplicate, using segregated distributed data centers. Over the long term, the GitHub Arctic Code Vault is designed to maintain the main branch contents of all GitHub repositories in cold storage for a period of 1,000 years.

Third-party preservation

If data or products are to be preserved by a third party, please refer to their preservation plans if available.

Additional possible data management requirements

More stringent data management requirements may be specified in particular NSF solicitations or result from local policies and best practices at the PI's home institution. Additional requirements will be specified in the program solicitation and award conditions. Principal Investigators to be supported by such programs must discuss how they will meet these additional requirements in their Data Management Plans.