

National Leadership Grants for Libraries, Research Grant, IUPUI

Building Public Library's Capacity for Open Data Services: Models and Implementation

Summary: The project team at Indiana University Purdue University Indianapolis (IUPUI) applies the research grant to request \$365,745 to validate and implement a theoretical model for developing public library services relevant to open data, which were developed from previous IMLS funded project (LG-96-17-0184-17). The project team will partner with 4 public libraries to validate the service model focusing on 4 areas: 1) promoting open data access, 2) providing data literacy instructions for public, 3) developing library programming from open data, and 4) developing internal data capacity for future service development. This 2.5-year project has a national focus and address the IMLS goal of *Building Capacity* by focusing on ways that public libraries create capacity to work with and provide services using open data, under *Community Catalysts* project type.

Statement of Need

Open data exists to be a resource for community development while creating accountability and transparency in our communities. To date, the open data movement has been criticized for focusing largely on supply side and less on its use.ⁱ User participation for open data is still low, and ordinary citizens are not likely to possess the data literacy skills and infrastructure needed to bring about the desired accountability.ⁱⁱ Public libraries are argued to have important roles in supporting open data as a civic intermediary by providing access, bridging the “data divide,”ⁱⁱⁱ playing an intermediary role from their powerful platform for public access to information^{iv}, and also empowering citizens with data literacy skills and knowledge.

As a response, there are growing participation of public libraries to open data movement, such as providing open data access through a collaboration with local government (e.g., Open data portal by Boston public library), public programming (e.g., Data book club by Toronto public library), data workforce development (e.g., data literacy training by Providence public libraries), and civic data engagement through partnership with local data intermediaries (e.g., [Civic Switchboard](#)). Still, there are gaps among public libraries that have been active in participating open data and those that have not, due differences in capacity and resources. Public libraries need resources and professional networks to guide them to initiate, organize, explain, and promote data services to their communities.

This project aims to build public libraries' capacity in open data engagement, library data skill development, and public service design. As a part of the IMLS ([LG-96-17-0184-17](#)) project, the team reviewed the local community data ecosystems and the role of the public library, and worked with public libraries that have been active in open data realm to develop the model (aforementioned in summary) for public libraries' open data engagement. Our model is unique in that emphasizes the local context and community engagement reflecting public libraries strong position to address place-based needs of their communities.^v ***Our goal is to test the model through the use of evidence-based practices.*** The project team will continue to work with public libraries to validate, implement, and refine the model through this proposed project. The model addresses six dimensions of organizational capacity (vision, human resources, financial resources, administrative, infrastructure, network) at three different levels of engagement with data and data practices (from beginning to mastering). The following research question guides this project: ***How useful, flexible, and implementable is the model, for different public library communities in offering new services around data?***

Project Design

This project will be conducted in three phases explained below. Using the model's four areas developed from our previous project, we will work with four public library partners in this project. The partner libraries were identified through a review of all the strategic plans of *Library Journal's* Star Libraries for 2019, based on the alignment with our project goal and with at least one focus area of the model.

Phase 1: Public Library Staff Training, Project Planning, and Community Engagement (12 months). To start, the PIs will visit each library site to understand the local context while provide training. The training will reflect the workshop provided on the model at the Research Institute for Public Libraries (RIPL) in December of 2020, one of outcomes of previous project ([LG-96-17-0184-17](#)). The partner libraries and project team will work together to refine the model in each library context and to engage the local data ecosystem and community stakeholders in this process. Each library partner will be paired with a library from our advisory board, who have already successfully implemented one focus area of the model, for planning. The project team, partner libraries, and the advisory board will have a regular meeting during the planning process. As a result of the planning, each library will have a plan for a new service or program addressing one of four areas.

Phase 2. Model Implementation and assessment (12 months). The four different services developed from the refined model in Phase 1 will be implemented within each partner library while conducting on-going assessment of the models. The participating libraries will document the process, workflow, and lessons. The project team and advisory board will also have a regular meeting with partner libraries to support and monitor the progress.

Phase 3: Model Revision, Development of Manual, and Extension of Community of Practice (6 months). The project team will modify the model from lessons learned in the implementation process, and develop a manual along with the model. The modified model and manual will be broadly shared through professional conferences, publication venues, and a web portal to support the community of practice (CoP) emerging in this area. We will also utilize existing resources to extend a CoP around the model/manual (e.g., Data Lab, which is applied data research lab, and Polis Center, which is community data intermediary), in order to raise awareness of and interest in the model/manual by people and organizations who are not involved in its development.

National Impact/Intended Results

This project validates a model in the context of four different use-cases, different library organizations, different user needs. This will result in an improved model that is robust, fully-articulated and flexible, both ready-to-go, and, customizable to local circumstances. The ultimate outcome of this project is a change in the practice of public libraries in open data engagement through different service approaches. Public libraries adopt parts or all of the model to provide services needed by their communities. A symposium will be organized to bring all libraries participating in this space together to encourage the development of the CoP. We would plan the symposium around the PLA conferences in 2022 and 2024.

Evaluation

Evaluation will focus on three distinct aspects that are essential to the validity of the finalized model: (1) the co-creation of knowledge, (2) practice, and (3) reflection by all participants. Library partners will be guided to “empowerment evaluation” by which they will be responsible for capturing and reporting quantitative accountability metrics (accomplishments, etc.) as well as reflecting on team dynamics and project highlights, with the project team serving to share findings across the four organizations.

Phase 1. A basic project management framework will be used such as milestones and quantitative measurements (e.g., quantity and speed of activities); interviews with project participants; and iterative sharing of accomplishments, roadblocks, and solutions. **Phase 2.** Implementation will be evaluated by quantitative measures of the size and scope of data services; community feedback and staff input (surveys/interviews with users and librarians). **Phase 3.** The outcome success will be measured by the potential of model adoption, such as quantitative measures of interest and interviews with a sample of those who are interested in the manual.

Project Team

PI: Andrea Copeland, Ph.D. is an associate professor at the Department of Library and Information Science (DLIS), IUPUI. Her research area is public libraries and community engagement.

Co-PI: Ayoung Yoon, Ph.D. is an assistant professor at DLIS, IUPUI. She is the PI of IMLS funded project, Data Reuse for Local Communities (LG-96-17-0184-17) investigating community data reuse practice.

Partner Libraries: Confirmed: Indianapolis Public Library, Ann Arbor Public Library; tentative: Santa Monica Public Library, San Francisco Public Library.

Advisory Board: Providence Public Library, Brooklyn Public Library, Toronto Public Library, Asotin County Public Library, Toby Greenwalt from Civic Switchboard (Carnegie Library of Pittsburgh).

Budget Summary: We request \$365,745 total to fund this project. Project team funding (97,861), Student hourly support (21,466), Library partners (80,000), Advisory board (12,000), Conference and library site visit travel (22,000), Open access journal publishing (3,000), website (community building) (5,000), Indirect (123,919)

¹ Gascó-Hernández, M., E. G. Martín, L. Reggi, S. Pyo, and L. F. Luna-Reyes. 2018. Promoting the use of open government data: Cases of training and engagement. *Government Information Quarterly* 35 (2):233–42. doi:10.1016/j.giq.2018.01.003.

² Janssen, M., Charalabidis, Y., and Zuidervijk, A. 2012. Benefits, Adoption Barriers and Myths of Open Data and Open Government. *Information Systems Management* 29, 4: 258–268. <http://doi.org/10.1080/10580530.2012.716740>

³ Burke, G.B., Kowlowitz, A., Pardo, T.A., and Sutherland, M. 2014. *Enabling Open Government for All: A Road Map for Public Libraries*: Center for Technology in Government, University at Albany, Albany, NY. Retrieved 12/18, 2015

⁴ Ibid.

⁵ Yoon, A., Copeland, A., & McNally, P. J. (2018). Empowering communities with data: Role of data intermediaries for communities' data utilization. *Proceedings of the Association for Information Science and Technology*, 55(1), 583-592.