Civic Data Literacy for Libraries: A Civic Switchboard Institute

Introduction

The School of Computing and Information, the Western Pennsylvania Regional Data Center, and the University Library System, all at the University of Pittsburgh, request **$249,916.61** to develop and deliver a regional civic data literacy institute for libraries. This is a 2-year implementation project that aligns with LB21 Program Goal 3: to enhance the training and professional development of the library workforce to meet community needs. Because civic data intermediary work in libraries centers local community needs, our project will support LB21 Objective 3.2: Create and/or refine training programs that build library and archival workforce skills and expertise in contributing to the well-being of communities. Through this project, we will host a series of six regional and one online Civic Switchboard Institutes, expand the community of practice around civic data in libraries, and further develop the open educational resources on civic data literacy in the *Civic Data Education Series* to make them more useful to practicing library workers.

The core project team at the University of Pittsburgh includes: Eleanor Mattern (Project Director), Aaron Brenner, Chelsea Gunn, Liz Monk, and Marcia Rapchak. This project will be carried out in collaboration with partners in libraries and organizations that are involved in library-based civic data work. These partners will serve as the hosts for regional Civic Switchboard Institute workshops. Our partners include Alex Chassanoff (North Carolina Central University) for a Durham, NC workshop; Catherine Barber (Fondren Library at Rice University) for a Houston, TX workshop; Matthew Sisk (Notre Dame University) for a South Bend, IN workshop; Nancee Hunter (Portland State University) for a Portland, OR workshop; and Garrett Dash Nelson and Ian Spangler (Leventhal Map & Education Center at the Boston Public Library) for a Boston, MA workshop.[1] Pittsburgh, PA, the location of the Civic Switchboard team will also serve as a workshop site, and we will offer one entirely online workshop.

Project Justification

Libraries as Important Civic Data Intermediaries

This project is driven by a central premise that libraries are important civic data intermediaries and, through these intermediary roles, can contribute to data justice efforts in their local communities.

Globally, governments and civic organizations are making data about our communities – or "civic data" – available as "open data." This opening of data is motivated by government transparency and accountability goals, civic participation, and innovation (Attard et al., 2015). Meeting these goals, however, is constrained by users' lack of awareness of the availability of data, data literacy barriers, and lack of comfort with data (Yoon & Copeland, 2020; D'Ignazio, 2017). Twidale et al. (2013) argue that the growth of available data calls for a simultaneous growth of the public's data skills, with information professionals playing "critical" roles "as teachers, facilitators and intermediaries in data literacy interactions" (p. 247). A growing body of work and library case studies have demonstrated that libraries act as important *civic data intermediaries*: the organizations that help community members to find, understand, and use civic data (Civic Switchboard Project Team, 2022; Robinson and Mather, 2017).

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[1] Providence Public Library was included as a partner in the initial proposal stage. However, because of capacity, they recently determined that they are unable to serve in this role. Collaborators at Leventhal Map & Education Center at the Boston Public Library have agreed to serve as a regional partner.

Our Civic Switchboard project team has previously argued that an "enduring strength of libraries is that they are local community anchors. Although a lot of civic open data exists, they vary in—just for starters—how it is published, who is supported to use it, and how it is stewarded. There's not one way to do it, and the form of a strong civic open data ecosystem will necessarily differ from place to place…Libraries are firmly connected to local communities; libraries and their workers should be helping to lead the development of their own civic data ecosystems" (Civic Switchboard Guide, 2022, p. 12). Indeed, case studies from public, academic, and government libraries reveal that roles with civic data take a variety of shapes, including developing patrons' civic data literacy, publishing library data as open civic data, advocating for responsible data practices, and providing expertise on data management in consultation with data creators (Civic Switchboard Guide, 2022).

However, library workers relay that "feeling unqualified" prevents them from full participation with civic data intermediary work in their communities (Chaar-Pérez et al., 2021). Library workers are often not trained to support civic data as an information resource and library roles around civic data are still emergent, highly relationship-based and local. Through regional workshops and engagement activities, this project will position a broader and geographically dispersed community of practice to meet the needs of their local communities through civic data roles.

Because open civic data can be used in ways that harm, rather than benefit, communities and, in particular, minoritized individuals, a local and social justice oriented approach to data work is needed (e.g. Benjamin, 2019). This project will integrate principles of data justice into the design of the regional Institute, the community of practice model, and the open educational materials and will further "attention to structural inequality, highlighting the unevenness of implications and experiences of data across different groups and communities in society" (Dencik et al. 2019, p. 875). While library engagement with open civic data will not eliminate all potential harms, libraries can support broader, critical, and meaningful community use, including the use of data to interrogate systems and structures that impact individuals. We will work in service of this goal with our project.

Through our proposed project, we will develop library workers' civic data literacies and broaden a community of practice. The target audience for this project is library workers in any type of library role and based in all types of libraries. While public libraries have long been seen as hubs for civic engagement, academic libraries are similarly playing critical roles in democratizing civic data and supporting its use. As part of the Institutes, we will highlight civic data work that is situated in public, academic, and government libraries through case studies and through the workshop segments prepared by the regional hosts.

Building on Previous Work

This proposed project expands on successful work by team members to build the capacity of libraries to work as civic data intermediaries and to develop civic data literacy educational materials. The Civic Switchboard project (#LG-70-17-0146-17; 2017-2022) supported local civic data activity through field awards and identified civic data roles for libraries through case studies. Additionally, we experimented with infrastructure to support engagement across a growing community of practice, through the Civic Data Operators Discussion Group and Civic Switchboard "community calls." This proposed project will conceptualize a community of practice model that will support sustained connection and sharing among libraries acting as civic data intermediaries.

In a subsequent instructional design project (#RE-246295-OLS-20; 2020-2022), members of the Civic Switchboard Team developed the *Civic Data Education Series*, a collection of open educational materials primarily designed to be used by library and information science (LIS) instructors as part of graduate-level LIS curriculum. Our proposed project will further extend the *Civic Data Education Series* to support a learner group of current library workers and, namely, library workers who are new to civic data literacy. To do so, we will bridge the *Civic Data Education Series* with a series called *Data Literacy for Data Stewards* (created in 2022-2023 by project advisor Bob Gradeck and team member Liz Monk), which focuses on critical data literacy and complex issues within civic data work, including "missing data" (Onuoha, 2016) and algorithmic harm.

Because the latter series was not designed with library workers as the learner audience, this project will meet the LB21 objective to "create and/or refine training programs," customizing and integrating this rich set of critical data literacy workshops into the library-focused *Civic Data Education Series*.

Growing Library Workers' Civic Data Literacy through Regional Institute and Civic Data Education Series

We will employ a regional Institute model used by the NEH-funded Sustaining DH project ([Sustaining DH, 2018-2019](#)), which allowed for the delivery of a workshop multiple times across the United States in geographically dispersed locations. A regional workshop model reduces the travel burden for participants, and allows workshops to be kept smaller, with more attention to the specific needs of participants. A total of 7 Institutes will be held: five hosted by partner organizations deeply engaged in library focused civic data work, one in Pittsburgh, and one online.

The objectives of the regional Institute approach will be multifold: 1. Expand a community of practice focused on libraries and civic data and connect regional library workers; 2. Support participants in understanding their civic data ecosystem and potential roles for their libraries; 3. Connect participants with exemplars of library civic data intermediary work through a host-developed workshop segment; 4. Foster critical data literacies through engagement with topics in civic data that speak to power, social justice, and responsible data practices to mitigate harms; and 5. Refine previously designed educational materials for a library audience.

Library workers new or early in their civic data work are the targeted Institute participants. Through six regional and one online Civic Switchboard Institute workshops, an anticipated 140 library workers will identify strategies for understanding their civic data ecosystems and for identifying meaningful civic data roles for their libraries. Additionally, we will augment the existing *Civic Data Education Series*, by refining the modules further for asynchronous engagement by current library workers, by adding five new modules designed by regional hosts, and by customizing the *Data Literacy for Data Stewards Series* for a library worker audience. These new modules will reflect the needs of local communities as a way to center the data justice objectives of the *Civic Data Education Series*.

Expanding the Community of Practice

We will engage in outreach to encourage both library workers new to civic data work and those whose work is more mature to connect with one another. Our previous work has pointed to the importance of a community of practice infrastructure for civic data work in libraries. An external evaluator for the previously-funded Civic Switchboard projects emphasized the importance of continued "peer connecting." He wrote, "Civic Switchboard libraries and civic data partners learn from each other, and borrow and implement ideas from one another. Libraries seeking to start or deepen their civic data work will need to continue to connect with their peers to accelerate their learning and bring emerging ideas to their communities" (Cowan, 2022). In April 2021, Civic Switchboard team members Aaron Brenner and Liz Monk organized a discussion with library workers who engaged with the project in different ways. Participants expressed the value of connection and community. One library worker said they "can't overstate how important having a group of people to talk to is, when you feel like you're [the only one] working on civic data…" and others offered models for supporting the community of practice, from quarterly calls to more robust events (Brenner, 2021).

With this in mind, we will hold bimonthly "community calls," encouraging participation and sharing from library workers who previously contributed case studies to the *Civic Switchboard Guide*, who are part of professional networks like the American Libraries Association's Government Documents Round Table (GODORT), and who are members of the Civic Data Operators Discussion Group. For new civic data intermediaries attending the Institute, participation in the community of practice calls will act as a complement to the workshops and a means of sustaining their goals of learning and community development. We will invite participants to use this time to grow their network, learn from libraries at different stages of their work with civic data, and to share what they have learned and done since they attended the workshop. We will also conceptualize

a sustainable community of practice model as an output of this project, which will continue to support activities that will connect library-based civic data intermediaries.

Project Work Plan

　　This project will have three phases: 1. Workshop Design and Planning; 2. Workshop and Community of Practice Facilitation and Assessment; 3. Refinement and Expansion of the *Civic Data Education Series*. Phases 1 and 2 will involve close partnerships with our regional partners: Alex Chassanoff (North Carolina Central University), Catherine Barber (Fondren Library at Rice University), Matthew Sisk (Notre Dame University), Nancee Hunter (Portland State University), and Garrett Dash Nelson and Ian Spangler (Leventhal Map & Education Center at the Boston Public Library). Bob Gradeck, a creator of the *Data Literacy for Data Stewards Series* and Director of the Western Pennsylvania Regional Data Center, will serve as an advisor.

　　We will take steps to ensure that the design and content of our workshops and community of practice activities meet our target audiences' needs. We have existing data from previous activities that will inform our Institute design, delivery, and community of practice efforts. The Civic Switchboard external evaluator conducted interviews with recipients of Civic Switchboard field project awards, producing a rich qualitative dataset that provides recommendations for future directions for library civic data work and a community of practice. Additionally, we will incorporate the perspectives from the library community into the design of the Institute and sustainable community of practice model through our partnerships with regional hosts, Institute assessments, and engagement with library workers who participate in community of practice calls.

Phase 1 Workshop Design and Planning

　　Phase 1 will occur in August 2023-January 2024. During this Phase, we will develop a workshop strategy that leverages the experiences and expertises of our regional host institutions and the modules from the *Civic Data Education Series* and the *Data Literacy for Data Stewards Series*.

　　The workshops will have three main components: First, from the existing *Civic Data Education Series*, we will integrate and refine materials that are focused on understanding civic data and its lifecycle and on exploring local civic data ecosystems and community data needs. Second, we will work with each regional host to design a workshop component based on their own work with open civic data. Each regional workshop, then, will have a unique component with its own learning objectives and activities. Each of these local objectives will be aligned with responsible and social-justice oriented civic data work. Local efforts are essential to data justice, which rejects the idea of a universalizing approach and instead recognizes the value of integrating the needs and values of local communities. Third, from the *Data Literacy for Data Stewards Series*, we will draw modules on critical data literacies that complement the host-prepared workshop segment and shape them to connect with library examples and themes.

　　During Phase 1, we will collaborate with our partners to set a schedule for the regional workshops, arrange logistics, and invite library workers to attend the regional workshops. We will hold a kick-off meeting with regional hosts to begin to conceptualize workshop segments and to develop plans for regional outreach and logistics. This meeting will serve as an opportunity to connect active library-focused civic data intermediaries together and to support community of practice building.

　　During Phase 1, we will create a workshop application process. Each regional workshop will be open to 20 library workers and travel funding will be provided to up to 15 participants who are traveling to attend the regional workshop. We will create an application form that invites an articulation of the participants' objectives for participation and interests in civic data intermediary work in their libraries and an accompanying rubric for evaluation of application. The highest scored applications will result in admission to the workshop.

　　During Phase 1, we will develop an assessment tool for evaluation of the regional workshops and community of practice calls to support iteration of both throughout the project. The assessment will address

attendee satisfaction with the content and format, and will ask attendees to consider how they will continue to support open civic data work in their institutions and communities.

For each location, we will create a customized regional outreach plan that will include a strategy for reaching library workers from different types of libraries. We will also work with hosts to identify library workers who we will share the workshop information with directly; we will be deliberate in sharing workshop information with library workers who serve diverse populations and who are members of minoritized communities. Outreach will commence in November 2023 and continue into Phase 2 of the project. A community of practice call will be scheduled for early November 2023, to introduce the regional institute, its objectives, and the application process. The Civic Switchboard team will share information about this call through the regional outreach strategy and Civic Data Operators Discussion Group.

Throughout Phase 1, team members' varied experiences with workshop design and planning will be beneficial. For example, Liz Monk, manager of digital literacy at the Western Pennsylvania Regional Data Center and former Civic Switchboard project manager, will connect her experiences facilitating the *Data Literacy for Data Stewards Series* to her understanding of civic data work in libraries to customize components of the series for the regional workshops. Dr. Chelsea Gunn, team member on the NEH-funded Sustaining DH [Digital Humanities] regional workshops, will guide the Civic Switchboard team in effectively implementing the regional Institute model.

Phase 2 Workshop and Community of Practice Facilitation and Assessment

Phase 2 will begin in January 2024 and will be a year in duration. During this phase, team members will facilitate six regional workshops and one online workshop, implement the assessment plan for the workshops, and hold bi-monthly community of practice calls. To allow for outreach, travel logistics, appropriately timed application period for the regional workshop, and host planning, our first workshop in February 2024 will be our online offering, followed by a Pittsburgh-based workshop in April 2024.

The remaining regional workshops will be held in May, June, July, August and October 2024. These workshops, held in collaboration with our project partners, will be in Houston, TX, Durham, NC, South Bend, IN, Portland, OR, and Boston, MA. Evaluation and iterative design will occur through Phase 2 of this project, with assessments conducted following each Institute and community of practice call. We will analyze the assessment data between the Institutes and make adjustments based on participant feedback.

Workshops will accommodate 20 attendees and, for the in-person workshop, our budget will provide travel stipends for individuals traveling from outside of the host city. The 2-day Institute will include:

Institute Day 1:
- An introduction to civic data
- An introduction to library roles with civic data through case studies
- An introduction to exploring the local ecosystem and community needs (and shaping library roles accordingly)
- The regional host's workshop segment that captures an example of a library role

Institute Day 2
- Workshop segments from the *Data Literacy for Data Stewards Series* focused on critical data literacy (determined and shaped in Phase 1)
- Time for Institute assessment and discussion about desired characteristics of a community of practice model

In Phase 2, our bi-monthly community of practice calls will continue in January 2024 and run through the remainder of our project (into Phase 3). Library civic data intermediaries who previously participated in these calls have provided feedback that they value the opportunity to learn from other libraries' open civic data roles,

services and projects. The calls will feature invited sharing of projects from civic data practitioners; such sharing allows for discussion and peer learning within the community of practice." Additionally, beginning with the May 2024 call, we will spotlight participants from previous online and regional workshops. In May 2024, for example, participants from the February 2024 online workshop will be invited to share what lessons they took back to their library, how they have approached learning about their local civic data ecosystem and community civic data needs, and any developments around civic data partnerships and roles.

During Phase 2, our project team will consult with each regional host about their workshop segment materials and, after the regional workshop and analysis of assessment results, discuss how we can prepare the workshop segment to be available as an openly licensed module in the *Civic Data Education Series.* Preparation of these modules for release will be led by the project team in consultation with the host partners during Phase 3 of the project.

Phase 3 Refinement and Expansion of the Civic Data Education Series

Finally, Phase 3 will run from January 2025-July 2025. During this time, we will finalize the refined *Civic Data Education Series* modules, add the regional hosts' modules to the series, and integrate library-customized modules from the *Data Literacy for Data Stewards Series.* All new and refined modules will be disseminated through the Civic Switchboard GitBook instance for the *Civic Data Education Series.* We will finalize the guidance for open educational materials during this phase, disseminating through the Civic Switchboard website.

Led by Dr. Marcia Rapchak, MSLS and Ed.D., our team will develop guidance on the design of open educational materials during this phase. We will learn through the refinement of the *Civic Data Education Series*, the customization of the *Data Literacy for Data Stewards Series* for a library target audience, and the preparation of the regional host's workshop materials as open materials. Through this phase discovery, we will consider characterics of instructional materials that support reusability and adaptation and document guidance that can support other IMLS-funded project teams to plan, design, assess, and iterate effective literacy-focused open educational materials.

We will continue activity with the community of phase in this final phase of the project and hold the bimonthly community of practice calls. Additionally during this phase, we will further the sustainability of the community of practice by exploring a more formal Civic Switchboard "affiliate" model, wherein library civic data practitioners may opt-in to an affiliate listing on the Civic Switchboard website, registering their interest in contributing to ongoing community of practice activities.

Diversity Plan

There are two core strategies underlying our diversity plan: first, intentional and directed outreach and inclusion efforts and, second, an Institute curriculum that focuses on building critical data literacies and social justice-oriented civic data intermediary roles with an explicit local focus.

The regional Institute and the civic data community of practice will support library workers in serving as civic data intermediaries in their communities. We will be intentional in our outreach to workshop participants, with directed invitations to library workers who serve diverse populations and who are members of minoritized communities. To do this, we will work closely with our regional partners to develop an outreach strategy in Phase 1. This directed outreach aims to not only result in Institute participation, but also a broadened community of practice that connects library workers involved or interested in civic data intermediary work. Funding to support participants' travel expenses and reduced travel through the regional model are intended to reduce barriers to participation. We will develop a workshop and community of practice code of conduct and be intentional about facilitating a space where participants are encouraged and supported in sharing their positionality and perspectives about civic data work in libraries.

With this project, we will implement and expand the work focused on critical approaches to data that we introduced in the *Civic Data Education Series* and that are core to the *Data Literacy for Data Stewards Series*.

Within both series, we emphasize that the methods through which data are collected impact the results, that data are not neutral and are subject to systemic bias, and that data have context and are shaped by the individuals and organizations who collect and communicate about these data. Informed by the work of Ruha Benjamin and the Ida B. Wells Just Data Lab, danah boyd & Kate Crawford (2012), Data for Black Lives (D4BL), the We All Count project, the Data Justice Lab, and Lauren Klein & Catherine D'Ignazio (2020), we will expand this focus to consider issues of power and privilege in the creation and use of data.

These regional workshops will support library workers in evaluating how datasets and data uses can perpetuate systems of harm. For example, by highlighting the Data Harms Record maintained by the Data Justice Lab in the Civic Switchboard Institute, we will illustrate how harms may include surveillance and control that has led to injury; exploiting vulnerable populations; discrimination based on race, gender, income and more; data security issues; automating essential services in ways that create barriers to access; and data manipulation to influence political processes (Redden, 2022).

We will foreground communities in civic data work in libraries. In our current *Civic Data Education Series*, we emphasize connecting with communities as partners and as assets in an effort to resist an extractive or deficit-based approach. Our series discusses developing relationships with the community and seeking feedback as a way to create a mutually beneficial and responsive partnership. Trust is key to effective community engagement, and while our sites will have already established key relationships based on trust, we will make sure that we frame our workshops with community-engagement best practices in mind to reduce harm and that allow involvement of those most impacted in meaningful ways.

Most importantly, we seek to prepare data intermediaries to facilitate data justice within their communities. Along with recognizing data harms, we can explore ways that data can be used by communities to describe their lived experiences, to expose local injustice, and to facilitate conversations and storytelling to make meaning. Data intermediaries can serve as a resource for communities to gain skills not only in finding and interpreting data, but also in creating their own data, sometimes in ways that resists current data infrastructures, like in the [Art+Data](#) series hosted at the University of Pittsburgh by Dr. Chelsea Gunn and Liz Monk. In our *Civic Data Education Series*, we provide guidance on data visualization and storytelling with data that can help to amplify and center voices that have been historically ignored in mainstream data narratives. There have also been data initiatives that have centered seeking justice for BIPOC individuals in data collection and communication, like the [Abolitionist Law Center Court Watch](#) in Allegheny County, an initiative that tracks trends in the county justice system, which can serve as inspiration for ways of using data in ways to combat racial injustice.

Project Results

This project will implement, refine, and expand the *Civic Data Education Series* for the learner community of library workers. We will partner with our workshop hosts to develop additional modules that will be added to the series, which will be assessed through the project. Through the workshops and community of practice, library workers will develop, iterate, and share civic data services and roles for their libraries, growing the prevalence of libraries as civic data intermediaries in our field and strengthening regional networks.

Through growth in library participation with civic data, there are anticipated benefits to local communities. Catherine D'Ignazio (2017) observes "a growing gap between those who can work effectively with data and those who cannot" (p. 6); through expanded library civic data services and education, we intend to support closing this gap and ensuring that working "effectively" with data also involves working responsibly and critically with data.

There are several project deliverables:

1. **The design and delivery of the synchronous Civic Switchboard Institute**, offered in six locations and online

2. **A refined and broadened *Civic Data Education Series***, adapted for library workers as the primary learning group and expanded with regional hosts' modules and the materials from the *Data Literacy for Data Stewards Series*
3. **Bimonthly community of practice calls**
4. **An expanded community of practice**, inclusive of library workers and partners previously engaged in civic data work, an estimated 140 participants in the Civic Switchboard Institute, and others who join community of practice calls as a result of our project's outreach
5. **Guidance on open educational resources**
6. **Community of practice model**

Deliverable 2 – the refined and broadened Civic Education Series – will be openly licensed and available through the Civic Switchboard website and, specifically, the GitBook instance used for the *Civic Data Education Series*. We will support customization and use of these materials by offering guidance to library workers who may be interested in engaging with these materials asynchronously for self-directed learning purposes or who may like to facilitate sessions on civic data in libraries for their organization. To support the latter, we will build out the "[Instructor Guide](#)" that is available as part of the *Civic Data Education Series*, which was originally designed with faculty in graduate LIS programs in mind. Team member Chelsea Gunn, who was a co-designer of the Sustaining DH Institute and a co-author of the supporting *Facilitator's Manual to the Socio-Technical Sustainability Roadmap*, will contribute to the development of an Facilitator's Guide for Civic Data Literacy (Langmead, Gunn, and Quigley, 2022).

Deliverable 5, the guidance on usable and implementable open educational resources, can inform future instructional design projects completed as part of Laura Bush 21st Century Librarian grants and more. In refining and adding to the *Civic Data Education Series* and in continuing this work through the regional workshops, this project can serve as a model for other initiatives that engage in instructional design, especially work that focuses on the development of open educational resources. Instructional design frameworks provide general steps for generating educational content, but these are often hard to implement without practice and examples. While there are case studies in the LIS literature that describe using ADDIE and other, similar frameworks, this project will develop a workbook that provides libraries and other organizations involved in creating open educational resources with a step-by-step, inquiry-guided approach, similar to that seen in the *Socio-Technical Sustainability Roadmap* (Langmead, Gunn, and Quigley, last updated June 2022). This will include exercises, examples, tools, and resources that will enable instructional designers to move from initial idea to creation to evaluation and outreach for an open educational resource meant for professional development purposes. This workbook will be hosted on GitBook and licensed under a Creative Commons-Attribution license.

This project will also result in a sustainable approach for supporting a community of practice for civic data intermediaries in libraries. Details about the community of practice will be disseminated on the Civic Switchboard website and ongoing community of practice activities will be shared through the Civic Data Operators group. We intend to further the sustainability of the community of practice by exploring a more formal Civic Switchboard "affiliate" model, wherein library civic data practitioners may join an affiliate listing on the Civic Switchboard website.

We anticipate that this project will contribute to the expansion of a community of practice that is engaged in library work that directly benefits local communities. Through the Civic Switchboard project, we have learned that libraries' civic data intermediary roles may take many shapes, from supporting patrons' data use through data literacy workshops to publishing library data that provides insight into the community's use of public services. With this project, we will develop an Institute and openly available materials that support the preparation of civic data intermediaries who work in service of social justice and their local communities.

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Schedule of Completion

Task	Start Date	End Date
Hold kick-off Meeting with project team and regional institute hosts (consultants)	8/1/23	8/31/23
With Institute hosts, develop regional Institute schedule and individualized communications strategy for each Institute	9/1/23	10/31/23
With Institute Hosts, create workshop segments that align with hosts' library-based civic data work	9/1/23	1/31/24
Develop Institute by refining and customizing *Civic Data Education Series* and *Data Literacy for Data Stewards Series* for a professional library audience	9/1/23	1/31/24
Create application and review process and assessment tool for Institute	11/1/23	11/30/23
Hold bimonthly Community of Practice Calls beginning in November 2023 and running through remainder of project Conduct regular community of practice evaluations through one-question surveys administered during calls	11/1/23	7/31/25
Implement regionally-focused communications strategy to share Institute application process and community of practice opportunities. The outreach will begin in November 2023 to communicate about the Institutes and run through the remainder of the project to involve library workers in the community of practice activities.	11/1/23	7/31/25
Open the application periods and review for Civic Switchboard Institutes (each application period will be open 1.5 months; applicants will be notified 2 months before regional Institutes)	12/1/23	8/15/24
Conduct 1 online and 6 regional institutes in February, April, May, June, July, August, and October 2024	2/15/24	10/31/24
Conduct Institute evaluations on Day 2 of the Institutes and 3 months post-Institutes	2/15/24	1/31/25
Work with regional Institute hosts to adapt workshop segments as openly licensed modules for dissemination in *Civic Data Education Series*	10/31/24	1/31/25
Prepare and publish Institute materials (refined and customized *Civic Data Education Series* and *Data Literacy for Data Stewards Series*) on *Civic Data Education* GitBook website	1/31/25	7/31/25
Prepare and publish Facilitator's Manual for Civic Data Education Series	1/31/25	7/31/25

Prepare and publish guidance on open educational resources	1/31/25	7/31/25
Develop plan for sustainable community of practice for civic data work, using feedback collected from community practice participants throughout the project	1/31/25	7/31/25

Civic Data Literacy for Libraries: A Civic Switchboard Institute

Digital Products Plan

Type: This project will create the following digital products:

1. **Project information and surveys**: We will share updates about our project through blog posts on our website. We will develop web-based surveys and an Institute application form using the Qualtrics survey tool.
2. **The online *Civic Data Education Series***: We will refine and broaden the *Series* for a target audience of library workers. This product will include slides, scripts, activities, and recordings and include files in formats such as PDFs, Open Document Formats, and MP4s.
3. **A Facilitator's Guide for Civic Data Literacy:** This online document will provide guidance for library workers interested in delivering the series as professional development programming.
4. **Guidance on open educational resources:** This online guide will provide libraries and other organizations involved in creating open educational resources with a step-by-step, inquiry-guided approach.

Availability: In this project, we will use the infrastructure previously established to disseminate the Civic Switchboard project materials. The Civic Switchboard project's GitHub Pages website will host project information, including the blog posts. The refined and broadened online *Civic Data Education Series* will be available on our existing GitBook platform. This currently serves as the location for the online modules previously designed for the target audiences of LIS instructors and their students (through project #RE-246295-OLS-20). A tab for the *Series* is prominent on the Civic Switchboard project website. The Facilitator's Guide will be available as a section of the *Civic Data Education Series* and downloadable as a PDF. We will use the GitBook platform to make the guidance on open educational resources available.

Access: We will assign all materials a Creative Commons Attribution (CC BY 4.0) license. This license encourages reuse, customization, and sharing. There are no anticipated privacy concerns present in the project's digital products. We will not collect personally identifiable information (like names) in our Institute and community of practice surveys.

Sustainability: We will be using GitHub tools as a publication strategy during the project, with GitHub Pages and GitBook acting as an access layer. A public GitHub repository for the Civic Switchboard includes files that are available through the GitHub Pages and Gitbook sites. The GitHub indicates that, "by default, all public repositories are included in the GitHub Archive Program, a partnership between GitHub and organizations such as Software Heritage Foundation and Internet Archive to ensure the long-term preservation of the world's open source software" (GitHub Docs). In addition to GitHub's preservation support, we will make *Civic Data Education Series* files available for download in open file formats. To support sustainability, we will also deposit a PDF version of the Facilitator's Guide and the guidance on open educational materials, in D-Scholarship@Pitt, the University of Pittsburgh's institutional repository.

Civic Data Literacy for Libraries: A Civic Switchboard Institute

Organizational Profile

The University of Pittsburgh, founded in 1787, is one of the oldest institutions of higher education in the United States. The mission of the University of Pittsburgh, approved by the Board of Trustees, is to:
- "provide high-quality undergraduate programs in the arts and sciences and professional fields, with emphasis upon those of special benefit to the citizens of Pennsylvania;
- offer superior graduate programs in the arts and sciences and the professions that respond to the needs of Pennsylvania, as well as to the broader needs of the nation and the world;
- engage in research, artistic, and scholarly activities that advance learning through the extension of the frontiers of knowledge and creative endeavor;
- cooperate with industrial and governmental institutions to transfer knowledge in science, technology, and health care;
- offer continuing education programs adapted to the personal enrichment, professional upgrading, and career advancement interests and needs of adult Pennsylvanians; and
- make available to local communities and public agencies the expertise of the University in ways that are consistent with the primary teaching and research functions and contribute to social, intellectual, and economic development in the Commonwealth, the nation, and the world" (University of Pittsburgh, Mission Statement)

The School of Computing and Information (SCI), founded on July 1, 2017, is the newest school at the University, uniting the former School of Information Sciences and Department of Computer Science. It is the home to undergraduate programs in computer science and information sciences and graduate programs in computer science, information sciences, intelligent systems, telecommunications, and library science. SCI has a student body totaling 1,515 students (SCI, Fiscal Year 2022 Annual Report).

This project will be managed by the Department of Information Culture and Data Stewardship in the School of Computing and Information, which is home to the Master in Library and Information Science (MLIS). The MLIS traces its history to the 1901 founding of the Training School for Librarians at the Carnegie Library of Pittsburgh. The MLIS program is designed to provide students with a strong educational grounding in the skills, knowledge, and ethical practices of the information professions. The MLIS program emphasizes the human, societal, and ethical implications of computing and information, and it educates information professionals who will collaborate with organizations and communities to meet their information needs as well as provide insights into the broader roles of information in culture and society.

Team members based in two other units at the University of Pittsburgh will contribute to the project: the Western Pennsylvania Regional Data Center (WPRDC) and the University Library System. The WPRDC maintains the open data portal for data created by Allegheny County, the City of Pittsburgh, and local community organizations. In addition to managing the technical infrastructure for data sharing, the WPRDC provides data literacy training to support use of open civic data. The University Library System plays a critical role in data literacy education for faculty, students, and staff and managed the first phase of the Civic Switchboard project (LG-70-17-0146-17).