



LAURA BUSH 21st CENTURY LIBRARIAN PROGRAM

Sample Application RE-258994-OLS-25
Project Category: Planning

Purdue University (Purdue University Libraries and School of Information Studies)

Amount awarded by IMLS: \$148,945

Purdue University Libraries and School of Information Studies will develop online AI training modules for academic librarians. Over two years, Purdue Libraries will convert well-curated data science workshops into librarian-oriented online learning modules, encompassing the entire AI project lifecycle. These modules will focus on key areas such as project planning, data preparation, model training, and evaluation, with coding and no-code options to support wide-ranging technical skill levels. The project will collaborate with a six-member advisory board of library and AI experts to guide the project, support pilot tests, gather feedback, and refine the platform. Key deliverables will include a sustainable, open-access set of 12 online learning modules featuring librarian-oriented AI prototypes, as well as publications and reports to disseminate findings and insights. The project will also establish a framework for future expansion to the broader galleries, libraries, archives, and museums sector, promoting long-term impact and sustainability.

Attached are the following components excerpted from the original application.

- Narrative
- Schedule of completion

When preparing an application for the next deadline, be sure to follow the instructions in the most recent Notice of Funding Opportunity for the grant program to which you are applying.

TACTIC in Lib: Transforming AI Consumers To Innovative AI Creators in Libraries

Introduction:

The Purdue Libraries and School of Information Studies request \$148,946 in IMLS LB21 funding for a two-year planning project, *TACTIC in Lib*, to develop 12 online AI training modules for academic librarians. This initiative aims to address the critical gap in artificial intelligence (AI) training for academic librarians, transforming them from AI consumers into innovative AI creators. The project aligns with LB21's Goal 2 (*Train and retain current library and archives professionals, faculty, and staff*) and Objectives 2.1 (*Develop or enhance professional development and training programs*). While AI tools are increasingly integrated into library services, most existing training programs focus on surface-level consumer applications (e.g., ChatGPT prompts^{1*}) or assume advanced technical skills, leaving librarians unprepared to develop customized AI solutions for library-specific challenges. *TACTIC in Lib* initiative will curate and refine Purdue's 100+ data science workshops into a suite of online learning tools covering the full AI project lifecycle—project planning, data preparation, model development, evaluation, and implementation—with both coding (e.g., Python, Hugging Face²) and no-code pathways (e.g., Google AI Studio³ and Hugging Face AutoTrain⁴) to ensure accessibility for librarians of varied technical backgrounds. The project will collaborate with a six-member advisory board of library and AI experts to guide the project, support pilot tests, gather feedback, and refine the platform. Key deliverables will include a sustainable, open-access set of 12 online learning modules featuring librarian-oriented AI prototypes (e.g., Retrieval-Augmented Generation (RAG) models for reference services), as well as publications and reports to disseminate findings and insights. Additionally, the project will establish a framework for future expansion to the broader GLAM (galleries, libraries, archives, museums) sector, promoting long-term impact and sustainability.

Project Justification:

Needs and Challenges

Artificial intelligence (AI) rapidly reshapes the way information is curated, accessed, and delivered. AI-powered tools such as ChatGPT, automated metadata generators, and intelligent search systems are increasingly integrated into library operations, offering new opportunities for efficiency and innovation. However, while these technologies hold immense potential, many academic librarians—who often lack formal training in AI and data science—find themselves limited to passive consumption rather than actively shaping AI-driven solutions that address the specific needs of their institutions. This skills gap hinders libraries from fully leveraging AI to enhance services such as research support, digital collection management, and user engagement.

A recent survey⁵ of academic librarians conducted by the University of New Mexico in May 2023 underscores this challenge. Among the 760 respondents, over 85% recognized the potential benefits of AI in library services and operations. However, more than 73% reported having only a moderate or lower understanding of AI concepts and principles. Many respondents cited a critical need for structured, comprehensive training programs to bridge the gap between high levels of interest and low levels of implementation. Without targeted educational resources and skill-building initiatives, librarians may struggle to keep pace in an era where AI is becoming increasingly integral to information management. Bridging this gap is essential not only to empower librarians but also to ensure that libraries remain at the

*See reference in supporting document 1 Reference and Appendix

forefront of technological innovation and continue to provide high-quality, AI-enhanced services to their communities.

While existing library AI initiatives provide a solid foundation in AI literacy, they primarily focus on consumer-level applications rather than empowering librarians to develop and customize AI solutions tailored to their institutions. Online courses like Library Carpentry's Intro to AI for GLAM⁶, books such as *The Rise of AI*⁷, online communities like the AI School Librarians Newsletter⁸, and Melissa Del Castillo's extensive list of LibGuides on AI topics⁹ offer valuable introductory content but largely emphasize AI awareness and usage rather than hands-on creation. These resources help librarians engage with AI tools but do not equip them with the skills to actively develop AI-driven solutions.

At the other end of the spectrum, advanced AI platforms like Hugging Face provide powerful machine learning tools for tasks such as natural language processing and computer vision. However, these platforms cater to users with substantial coding expertise, excluding many librarians who lack programming skills. This gap highlights a critical disconnect between existing AI training opportunities and the specific needs of library professionals.

Generic AI tutorials—such as Coursera's AI for Everyone¹⁰—introduce broad concepts but fail to address the practical realities of library workflows, such as ethical data curation, integrating AI with legacy systems like Alma¹¹ or LibGuides¹², or automating metadata generation in a controlled and transparent manner. As a result, many librarians remain stuck between AI awareness and practical implementation, unable to bridge the gap between theoretical knowledge and hands-on application.

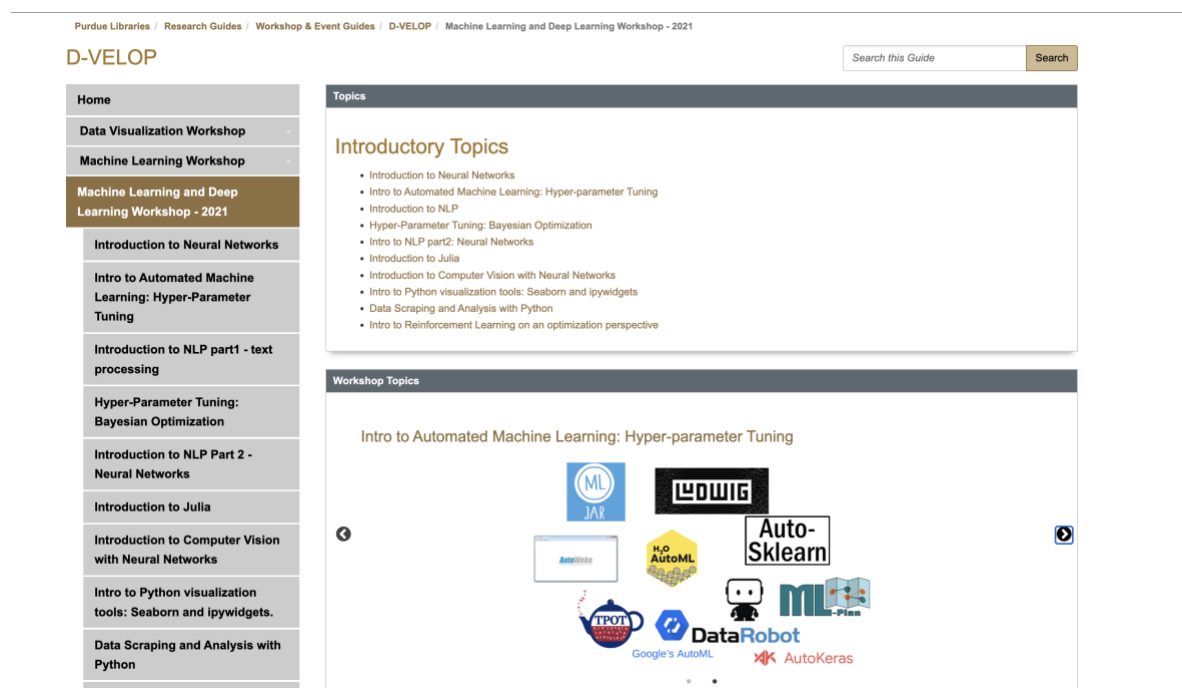


Figure 1. An example of data science workshops developed by Purdue Libraries, which include a mixed of code-based and no-code resources to learn AI and machine learning.

TACTIC in Lib directly addresses the gap in librarian AI training by curating and refining Purdue's proven data science workshops¹³ (see Figure 1) into a structured, dual-pathway curriculum tailored to librarians,

regardless of their technical background. Originally developed by the PI's lab since 2020, these workshops were designed to equip graduate students with advanced data analysis and AI skills. A unique feature of these workshops is their emphasis on hands-on practice, with coding and tutorial materials publicly available through Purdue's LibGuide. Hosted by Purdue Libraries and the School of Information Studies, the workshops benefit from the expertise of graduate students from diverse fields, including statistics, computer science, engineering, information technology, and natural sciences. This interdisciplinary approach allows for the delivery of multi-level content, ranging from foundational data science and AI concepts to cutting-edge topics aligned with state-of-the-art research in computer vision and AI. Notably, some workshops (e.g., reinforcement learning in 2021, federated learning in 2023, and multimodal machine learning in 2024) were based on the students' own research, reflecting the lab's commitment to integrating real-world, frontier research in AI training and education. By the end of 2024, the lab had delivered more than 100 workshops to over 3,000 participants—including undergraduates, graduate students, faculty, and staff—from across all majors on Purdue's main campus. In addition, these workshops, available through our LibGuide, have garnered over 44,000 views to date, averaging 1,500 views per month in 2024 (see Figure 1a in supporting document 1: Reference and Appendix). The growing number of online visits shows the increasing impact of these workshops, highlighting their value as accessible and useful learning resources. Furthermore, the interdisciplinary experience gained through developing these workshops allows the PI to design and deliver training that is flexible and meets the diverse needs of participants, ensuring that both beginners and advanced learners can engage with and benefit from the materials.

Building on this success, *TACTIC in Lib* will extract and tailor key concepts from the original series to create library-specific content that supports AI training for librarians. Recognizing that much of the existing material is technically dense, the project will carefully curate and convert these resources into engaging, easy-to-learn materials. This effort will include developing a no-code pathway that meets the needs of librarians with limited technical expertise, as well as a code-based track for those interested in deeper technical engagement.

The resulting curriculum will offer two distinct learning tracks:

- **No-Code Learning Track:** This pathway enables librarians to create AI-driven solutions using accessible platforms like Google's Vertex AI¹⁴ and Hugging Face AutoTrain, allowing them to build and deploy AI models without writing code.
- **Code-Based Track:** For tech-curious librarians, this track provides hands-on experience with tools such as Hugging Face transformers and other AI frameworks, empowering them to fine-tune models for practical applications like metadata enhancement, automated reference services, and digital repository management.

By adapting and streamlining Purdue's established data science training into librarian-friendly modules, *TACTIC in Lib* bridges the gap between technical AI concepts and their practical application in library settings, empowering librarians to transition from passive users to active innovators within their institutions.

Target Group

The *TACTIC in Lib* initiative is designed to support 50+ academic librarians through a structured, two-year rollout plan focused on material development and prototyping.

- **Year 1:** A cohort of 15+ internal pilot participants will engage in hands-on testing of the training materials and platform. Their feedback will be instrumental in refining content, ensuring usability, and tailoring the curriculum to real-world library workflows.
- **Year 2:** With insights from the internal pilot phase, the program will scale up to 45+ librarians through external pilot testing, targeted workshops, webinars, and professional development sessions, broadening its reach and impact.

Within this target group, two distinct learning pathways have been identified to accommodate varying technical backgrounds and professional needs:

- **No-Code Pathway (~60% of participants)** – Designed for non-technical librarians, this track will focus on integrating AI tools into library operations without requiring programming skills. Participants will explore low-barrier AI applications such as automated metadata generation, AI-driven chatbots, and accessibility enhancements.
- **Coding Pathway (~40% of participants)** – Tailored for tech-curious librarians, this track will introduce coding-based AI development, enabling participants to build, fine-tune, and implement customized AI solutions suited to their libraries' specific challenges.

This dual-pathway approach ensures inclusive access to AI training while fostering a pipeline for advanced AI innovation in library environments.

Ultimate Beneficiaries

Beyond the immediate participants, *TACTIC in Lib* is designed to generate impacts across multiple stakeholders:

- **Library Patrons:** AI-powered innovations in academic libraries will enhance user experiences through personalized resource recommendations, improved search and discovery tools, and AI-driven accessibility features, making information more inclusive and responsive to diverse needs.
- **GLAM Institutions:** The project will develop scalable AI adoption frameworks for Galleries, Libraries, Archives, and Museums (GLAM), ensuring that cultural and heritage institutions can integrate AI solutions effectively. The training materials will be adaptable, allowing librarians and archivists in these institutions to implement AI with minimal technical barriers.
- **Broader Community:** The initiative will provide open-access training materials, particularly benefiting rural and under-resourced libraries that often lack the funding or technical expertise to explore AI-driven solutions. By making AI education more equitable and accessible, *TACTIC in Lib* helps bridge digital divides and empower a wider community of library professionals.

This strategic focus on planning, prototyping, and scalability ensures that *TACTIC in Lib* serves as a sustainable foundation for AI literacy in libraries, paving the way for future adoption and innovation.

Project Work Plan:

Year 1: Activities 1-5

The primary goal for Year 1 is to establish a solid foundation for *TACTIC in Lib* initiative by developing and prototyping a dual-pathway AI training curriculum specifically tailored for academic librarians. During this phase, the project will focus on material development, platform prototyping, internal pilot testing, and early stakeholder engagement to ensure that the training content is accessible, effective, and fully aligned with real-world library workflows. This groundwork will prepare the initiative for a robust pilot testing phase in Year 2.

Activity 1: Kickoff, Team Formation, and Advisory Board Recruitment:

The first phase of Year 1 will begin with a dynamic project kickoff designed to establish an agile framework that allows for iterative progress and continuous improvement. The PI and two graduate assistants will convene an initial meeting to outline the overall project vision and to divide the work into manageable, modular components. This approach will enable the team to focus on reworking individual workshop modules in short, iterative sprints rather than attempting to overhaul all 100+ workshops at once. Specific roles will be assigned, and clear communication channels will be established with shared file folders and communication channels. Simultaneously, the team will launch a recruitment process for a six-member advisory board that will include two senior library professionals (from different libraries), two AI/data science experts (one with library-specific experience and one from computer science), one representative from a library association (e.g., ACRL), and one advisor on IT and end user experience. The advisory board members will be expected to commit to regular meetings (three times a year). Involving stakeholders from other academic libraries (e.g., partners from the Big Ten Academic Alliance (BTAA)) at this early stage ensures that the project reflects actual user needs. Success in this phase will be measured by the timely formation of the project team and advisory board and the creation of a comprehensive, milestone-driven project plan.

By the time the proposal was submitted, the following librarians have committed to participate on the Advisory Board. The support letters are included in the supporting documents accompanying this proposal.

Table 1. List of committed advisory board:

Advisory board	Title and University	Role in the project
Nicole Kong, Ph.D.	Associate Dean of Research, Professor Purdue University	Senior library professionals
Clara Chu, Ph.D.	Director and Mortenson Distinguished Professor University of Illinois, Urbana-Champaign	Senior library professionals
Claudia Engel, Ph.D.	Academic Technology Specialist & Lecturer Stanford University	AI/data science experts
Borui Zhang, Ph.D.	Natural Language Processing Specialist University of Florida	AI/data science experts
Meng Qu	Web Design Librarian Miami University, Ohio	Advisor on IT and end user experience.

Activity 2: Content Curation and Modular Development:

Following the kickoff, the team will undertake a content curation of over 100 existing AI and data science workshops from Purdue Libraries. The PI and graduate students will develop an evaluation rubric that examines each workshop for clarity, relevance, and technical complexity, with the goal of identifying materials that can be adapted for librarians and covered the whole AI project lifecycle from planning to data preparation to model development and implementation. Given that many workshops were originally

designed for a more technical audience, the team will focus on simplifying content, integrating contextual examples specific to library operations, and drafting preliminary learning pipelines that outline step-by-step AI project workflows tailored for library environments. Regular consultations with librarians and advisory board will ensure the selection criteria are robust and reflective of practical needs. The successful completion of this phase will be indicated by a comprehensive content audit report and a set of preliminary learning pathways ready for further development (see the draft training curriculum in Table 2 in Activity 4).

Activity 3: Advisory Board Engagement and Initial Feedback:

Concurrently with the planning and content curation activities, the advisory board will be fully recruited and engaged. The board will convene its first meeting by the end of Month 3 to review the project work plan, discuss early findings from the content audit, and offer strategic recommendations on adapting the materials for non-technical users. Their input will be meticulously documented and integrated into the evolving project plan. With scheduled recurring meetings—at least three times per year—the advisory board will continuously contribute to ensuring that the curriculum and platform design meet industry best practices and align with the specific needs of academic librarians. The effectiveness of this engagement will be evaluated through detailed meeting minutes and the incorporation of board feedback into subsequent project iterations.

Activity 4: Module Content Development and Platform Prototyping:

With clear content direction and expert guidance in place, the project will move into the development phase, where the graduate students, under the oversight of the PI, will begin transforming the selected workshop materials into interactive prototype modules. These modules will be structured around the AI project lifecycle, which includes key phases such as project planning, data curation and preparation, model selection and training, evaluation, and final implementation. To accommodate the diverse technical backgrounds of academic librarians, each phase will be developed along two distinct tracks: a no-code pathway for non-technical librarians and a coding pathway for tech-curious users seeking deeper engagement with AI tools (see the preliminary draft curriculum in Table 2).

For example, in the "AI Project Planning and Data Preparation" module (Table 2), the no-code track will introduce librarians to visual planning tools that help organize project goals and identify relevant data sources through drag-and-drop interfaces. Participants might use platforms like Google Cloud's AutoML Tables or Vertex AI's no-code interface to perform basic data cleaning and visualization. Conversely, the coding pathway will provide hands-on exercises in Python, using libraries such as pandas to clean, transform, and analyze data. This dual approach ensures that librarians can engage with the material in a manner that suits their technical expertise.

Similarly, the "AI Model Training and Evaluation" module will offer differentiated learning experiences. In the no-code version, participants will explore a user-friendly interface where they can experiment with various model parameters using pre-configured settings on platforms like Vertex AI or Hugging Face AutoTrain, and view results through interactive dashboards. In the coding track, learners will work on practical exercises using frameworks such as scikit-learn and Hugging Face transformers to build, train, and fine-tune AI models for library-specific tasks, such as categorizing metadata or automating reference services. These examples illustrate how the curriculum is designed to demystify AI by providing practical, context-specific applications that align with real-world library workflows.

Simultaneously, work will commence on building a user-friendly online learning platform to house these modules. Early prototypes of both the modules and the platform will be piloted internally with the project team and select advisory board members, providing crucial initial feedback on usability and content delivery. This iterative development process will ensure that, by the end of Year 1, the modules and the

platform are robust, engaging, and finely tuned to the diverse needs of academic librarians, setting a solid foundation for the pilot testing phase in Year 2.

Table 2. A preliminary draft of the training modules in both no-code and coding tracks.

Module	No-Code Track	Coding Track
Module 1: Introduction to AI for Libraries	Overview of AI concepts and their applications in library workflows using interactive videos and case studies.	Introduction to AI fundamentals with Python, including basic AI/ML concepts and hands-on exercises in Jupyter Notebook.
Module 2: AI Project Planning & Data Preparation	Using tools like Google Cloud AutoML to organize AI projects, manage datasets, and perform basic data exploration without coding.	Hands-on data wrangling with Python (pandas, NumPy) to clean, preprocess, and visualize library-specific datasets.
Module 3: AI-Assisted Reference & Discovery Services	Implementing AI-powered chatbots and recommendation systems using prebuilt tools like Dialogflow or ChatGPT-based assistants.	Building and training a custom chatbot using Python (Rasa or LangChain) to automate library reference services.
Module 4: Text and Image Processing for Digital Archives	Using AI-powered OCR and image recognition tools (e.g., Transkribus, Google Vision API) to digitize and classify archival materials.	Applying NLP techniques with spaCy and transformers for text classification and sentiment analysis in digital collections.
Module 5: AI Model Training & Evaluation	Deploying pre-trained LLMs on Vertex AI or Hugging Face AutoTrain, understanding evaluation metrics via interactive dashboards.	Training and evaluating custom AI and LLMs using scikit-learn and deep learning frameworks (TensorFlow/PyTorch).
Module 6: AI Deployment & Integration in Library Systems	Exploring no-code AI integration with library platforms like Alma and LibGuides, using automation tools like Zapier.	Implementing AI models via APIs and embedding them into library workflows using Python and cloud-based deployment tools.

Activity 5: Internal Testing, Feedback Integration, and Iterative Refinement:

In the final quarter of Year 1, the project will enter an internal testing phase. Comprehensive usability tests, focus groups, and surveys will be conducted to evaluate the clarity of the modules and the overall functionality of the online platform. This feedback will be gathered from both internal testers and advisory board participants, with the expectations of 15 or more participances from PI's and advisory members' institutions.

The internal testing process will involve a combination of self-paced usability tests, tutor-led workshops, and focus group discussions. Participants will have the flexibility to explore the modules independently, complemented by guided sessions where facilitators provide additional context, answer questions, and gather real-time feedback. Focus group discussions will offer an opportunity for deeper engagement, allowing participants to share their experiences, suggest improvements, and discuss potential challenges in application.

Based on insights gathered from internal pilot tests, the project team will implement iterative refinements to address identified issues such as confusing content, technical glitches, and usability challenges. Each testing method will contribute unique perspectives, ensuring that refinements are both data-driven and

user-focused. Detailed documentation of all revisions, including the rationale behind changes and their impact on the user experience, will be maintained throughout the process. This will culminate in a comprehensive internal report that outlines testing outcomes and justifies the modifications made. In Month 12, a final advisory board meeting will be held to review the refined prototypes, providing an additional layer of evaluation to confirm that both the content and the platform are fully optimized and ready for the external pilot phase in Year 2.

Year 2: Activities 6-9

Year 2 will focus on external pilot tests and evaluations (activities 6-9) while keep working on refining the developed AI training modules and learning platform (activity 4).

Activity 6: External Pilot Testing and Iterative Refinement:

In the first phase of Year 2, the project will shift its focus on external pilot testing with similar approaches as the internal tests listed in activity 5. A diverse group of at least 15 academic librarians—selected to represent various institutions and technical backgrounds—will be recruited to engage with the prototype modules and the online learning platform. Participants will be recruited through established library AI networks, including the ALA Core AI interest group¹⁵, ACRL AI discussion group¹⁶, and IDEA Institute on AI¹⁷. The PI and several advisory board members will actively promote the program and recruit participants at library conferences, aiming to include librarians from both large and small institutions across the U.S. to ensure broader representation. Notably, by the time the proposal was submitted, several libraries and individual librarians had already expressed interest in the project (Table 3) and provided support letters, which are included in the supporting documents accompanying this proposal.

These pilot participants will work through both the no-code and code-based learning pathways, providing detailed feedback on usability, content clarity, and overall functionality. Throughout this period, the project team will conduct regular check-ins and structured focus groups, as well as deploy surveys and usage analytics tools to systematically gather qualitative and quantitative data. This external evaluation will identify strengths and pinpoint areas that require refinement, ensuring that the training materials are both effective and accessible.

Table 3. List of current interested and supporting organizations and individuals in pilot testing as the proposal was submitted:

Pilot testing	University of Oregon Libraries Lydia M. Olson Library, Northern Michigan University Cataloging Librarian, University of Tennessee, Knoxville Libraries
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Activity 7: External Workshops and Broader Engagement:

Parallel to the external pilot testing, the project will extend its evaluation efforts by conducting multiple targeted workshops or training sessions at partner universities and conferences, aiming to engage 30 or more participants. These sessions may be integrated into prominent events such as the ALA Annual Conference or delivered through ACRL webinars. By testing the materials in diverse external settings, the project team will gain valuable insights from librarians working within a variety of institutional contexts and facing different operational priorities. Feedback from these external sessions will be systematically collected and analyzed alongside insights from the internal pilot phase, providing a holistic view of the curriculum's strengths and areas for improvement. The advisory board will review this combined feedback in a dedicated meeting, providing strategic guidance for the next stage of development.

Activity 8: Finalization of Materials and Platform Prototyping:

Building on the insights gathered during the pilot testing and external workshops, the project team will enter a refinement phase. During this activity, the training materials and the online learning platform will undergo iterative revisions to enhance clarity, functionality, and accessibility. Specific adjustments may include:

- Refining explanations and incorporating additional case studies that better illustrate AI applications within academic library workflows.
- Restructuring learning pathways to ensure a smooth progression from foundational to advanced topics.
- Enhancing the user interface of the online platform to optimize navigation and engagement. The goal during this period is not to launch the program publicly but to prepare the *TACTIC in Lib* resources for scalability. The refined prototype will serve as a model that is adaptable for future expansion into GLAM (Galleries, Libraries, Archives, and Museums) institutions.

Finalized instructional materials will be designed with universal design principles, integrating clear language, step-by-step guidance, and multimodal content (such as video tutorials and interactive exercises) to support different learning styles and accessibility needs.

Activity 9: Impact Evaluation and Sustainability Planning:

Throughout the entire project period, the team will maintain the focus on comprehensive evaluations of the project's impact and the development of a sustainability strategy. The project team will conduct an in-depth analysis of all pilot feedback, performance metrics, and usability data collected during the previous activities. This evaluation will assess improvements in AI literacy among pilot participants and identify the curriculum's overall effectiveness in meeting the needs of diverse librarian audiences.

To maintain the online learning resources during the project, the team will implement a structured content management plan. This plan will include regular reviews of module content, scheduled updates to reflect new developments in AI, and the integration of emerging tools and practices relevant to librarians. The online learning platform will be designed with modularity and flexibility, allowing for seamless updates to individual lessons or resources without disrupting the overall user experience. The team will establish a network of content contributors, including advisory board members and external experts, to monitor advancements in AI and recommend curriculum enhancements.

To ensure the content remains current with long-term sustainability, the project will utilize GitHub as a central hub for managing and updating the learning materials. GitHub offers version control, enabling the project team and contributors to track changes, maintain transparent updates, and collaborate on improving the content. The platform will allow for open-source contributions from external experts, advisory board members, and the broader community, ensuring that the curriculum remains aligned with advancements in AI and library practices. Additionally, the project will leverage GitHub's issue tracking and discussion features to continuously gather user feedback and identify areas for improvement. By making the resources publicly available on Github, we can engage with a global community of librarians and AI practitioners to share insights, offer enhancements, and contribute to the ongoing development of the content.

For long-term strategy and scaling, the team will develop a sustainability plan that outlines strategies for ongoing content updates, platform maintenance, and future outreach initiatives. The plan will include recommendations for scaling the initiative (e.g., expand the target audience to GLAM and international institutions), securing additional funding, and building partnerships with professional networks and library associations. A final advisory board meeting will be convened to review the evaluation findings

and sustainability strategy, culminating in a detailed final report that summarizes key outcomes, lessons learned, and potential next steps for broader implementation.

Project Results

The *TACTIC in Lib* project will deliver a structured and scalable AI training framework designed to empower librarians to transition from AI consumers to AI creators. A key outcome will be 12 online AI learning modules—six no-code and six coding-based tracks—hosted on GitHub. This dual-pathway curriculum ensures accessibility for librarians of different technical skills.

The curriculum will span the entire AI project lifecycle, addressing crucial topics such as AI fundamentals, project planning, machine-ready data preparation, AI model selection and training, evaluation, and real-world implementation within library settings. Each module will be self-contained, featuring tutorial videos, introductory materials, and hands-on practice through case studies (detailed module structure in the digital product plan).

- The six no-code modules: Participants will learn to implement AI-driven solutions using platforms like Google Vertex AI, Hugging Face AutoTrain, and other accessible tools.
- The six coding modules: Participants will explore more advanced applications, including model fine-tuning and customization, using tools like Hugging Face Transformers.

By the end of the program, librarians will be equipped with the skills to deploy AI-driven innovations in their libraries, such as AI-Assisted Reference & Discovery Services, text and image processing, personalized resource recommendations, and accessibility enhancements to meet diverse user needs.

In addition to the online learning modules, *TACTIC in Lib* deliverables will include publications in library journals to share project findings, presentations at professional conferences to engage the broader library community and raise awareness about AI initiatives in libraries, and a final report summarizing key outcomes and insights.

Furthermore, the project's evaluation framework will measure learning outcomes, track participant engagement, and assess the effectiveness of the training model, providing valuable insights for future iterations and expansion. Through these efforts, *TACTIC in Lib* will contribute to the foundation of AI capacity-building in libraries, fostering long-term AI adoption across the GLAM sector.

Schedule of Completion

[illegible]