

Information Literacy Instruction for Library Professionals will be an online professional development course to train library staff to teach information literacy skills to the public. The course will be developed and implemented by experts at Brooklyn Public Library (BPL), the lead applicant, with its partner Syracuse University's School of Information Studies (iSchool) and the New York Library Association (NYLA). The goal is to retool and retrain library professionals to bolster their information literacy customer service, programming and instruction skillset. As a result of the project: 1) library staff will gain increased knowledge and confidence in information literacy and related instructional strategies and techniques; 2) library professionals will become more capable of assisting patrons with information queries and searches, and better prepared to offer programs, workshops, services, and outreach to the public on the topic of information literacy; and 3) a model information literacy course for library professionals will be tested, refined, and ready to share nationally. BPL is seeking IMLS support from the Project funding category for this Lifelong Learning project. The two-year budget is \$209,327 of which \$76,989 is provided as cost share, and \$132,338 is requested from IMLS.

I. Statement of Broad Need

Information literacy is defined as "the set of integrated abilities encompassing the reflective discovery of information, the understanding of how information is produced and valued, and the use of information in creating new knowledge and participating ethically in communities of learning" (*ACRL Framework for Information Literacy for Higher Education, 2015*). Now more than ever, public library professionals from library systems of all sizes and throughout the country must keep their information literacy skills fresh in order to teach patrons how to combat misinformation and navigate the information landscape to find reliable resources and tools. As a trusted community resource, public libraries play a critical role in guiding people to the information they need to navigate life in the 21st century.

In the ever-widening world of services offered by public libraries -- now hubs for social services, health and wellness resources, technology support, financial help, arts and culture programming, and more -- there remains a steadfast demand for core services in research and many forms of literacy. Rather than rendering libraries obsolete, the existence of the internet and the abundance of available, ever-changing information has solidified libraries as places the public turns to in order to find trusted, expert guidance; particularly for those feeling overwhelmed, uncertain, or unprepared to find the information and resources they seek.

Information Literacy Instruction for Library Professionals will train library service staff to effectively disseminate information literacy skills to the general public. This course will focus on three foundational competencies: 1) the research process, 2) information literacy, and 3) instructional strategies and techniques. Course content will be developed by BPL in partnership with faculty of the Syracuse University iSchool and with subject matter experts in areas such as research, information behavior, and instructional theory. Course topics include: review of research and inquiry fundamentals; database and information organization; tools for navigating the open web; introduction to archives, primary sources and digital collections; introductions to media, health and data literacy; and a variety of practical teaching and presentation strategies. The planned 12 hours of coursework will be a mixture of video lectures, readings, independent work, and a final assignment. All coursework will be completed online. A course instructor will support students, answer questions, and grade coursework on a Pass/Fail basis. Independent work assigned throughout the course will reinforce skills and connect new knowledge to professional practice.

Course precedent

The course content and methodologies are based on *Teacher Lab*, an award-winning course for K-12 educators created by BPL's Amy Mikel (formerly School Outreach Librarian, currently Civic Engagement Manager) which ran for four summers and was then adapted into an online, self-paced course with the support of an IMLS Sparks grant (#SP-02-16-0028-16). Since its launch in July 2017, more than 2,000 educators from 25 states and Canada have enrolled, with over 300 classroom teachers and school librarians completing the course to date. The course has a

high satisfaction rate from course attendees, with 95% of respondents surveyed reporting increased ability and confidence in teaching information literacy and research skills.

The project earned Mikel a Library Journal 2018 “Movers and Shakers” recognition, a 2018 Urban Libraries Council Innovator in Adult Education Award, and received the 2020 Innovation in Instruction Award by the Library Instruction Round Table of the American Library Association. The success of *Teacher Lab* led BPL to identify a need for an information literacy course geared specifically to the needs of library staff. The course will be an opportunity to refresh and update library professionals’ knowledge of both traditional and modern sources of information (catalogs, archives, databases, and the web, etc.) combined with developing skills in searching and evaluating information for themselves and others. Special attention will be given on how to transfer learned knowledge to the layperson. Instructional theory and best practices will be integrated with independent work assignments to prepare participants to immediately put what they learn into practice.

Information Literacy Instruction for Library Professionals is at the piloting and scaling level of maturity. BPL and the iSchool will adapt aspects of the *Teacher Lab* curriculum and methodology enabling the new course to be piloted in Year 1 with BPL librarians. The course will then be brought to scale in Year 2 reaching librarians throughout New York State, with refinements based on lessons learned during the pilot period. The partners will continually assess the relevance and applicability of the course content and methodologies and make ongoing adjustments to ensure that the final outcome is a professional development offering appropriate to the needs of a range of library professionals that will be available nationally.

The proposed program fits the Lifelong Learning project category as it is a training designed to meet the needs of a diverse workforce of library professionals. The course will develop the skills of in-service library professionals in facilitating experiential and self-directed learning opportunities of library patrons. It will reinforce the role of library staff as facilitators of lifelong learning and leverage the role of libraries as trusted sources of information.

II. Project Design

Over the course of the two-year project, *Information Literacy Instruction for Library Professionals* will be led by Amy Mikel who will oversee all project components. She will work closely with Sophie McGrath, BPL’s Manager of Learning and Development. In Year 1, Mikel along with Rachel Ivy Clarke and Beth Patin of the iSchool faculty, will guide the adaptation of the *Teacher Lab* curriculum and the course will be piloted with three cohorts of BPL staff. In Year 2, the course will be made freely open across New York State: available to both individual library staff who wish to complete the material, or adopted more officially as a staff training by library systems. A collaboration with NYLA will ensure maximum reach to state library professionals. As the course is undertaken by staff in local, regional, urban, suburban, and rural libraries, the partners will assess the relevance and applicability of the course content and methodologies and make refinements.

In the first year, the online course will reside on the BPL’s internal training system, Train Station, and Mikel will serve as the course manager and instructor. In the second year, BPL will migrate the course to an external-facing online learning management system and it will become available to library professionals across New York State at no cost. NYLA will be engaged as a partner to champion and distribute the course. The statewide rollout will be supported by a full-time project coordinator/instructor responsible for promoting the course to library systems statewide while also serving as course instructor. In the final months of the grant period, the iSchool will absorb *Information Literacy Instruction for Library Professionals* as a continuing education offering. Going forward, the nominal fee charged for continuing education courses (\$100 per) will be used to cover the costs of an iSchool instructor and other operating expenses ensuring the course’s ongoing sustainability after grant funds are expended.

Project Goals

The goals of the proposed project are to:

1. Train library service staff in foundational information literacy competencies: the research process, information literacy, and instructional strategies and techniques;
2. Develop a comprehensive, practical course in information literacy that meets the needs of today's library professionals;
3. Increase library professionals' capability and confidence in providing information literacy guidance to patrons of all backgrounds, and
4. Encourage more frequent and higher quality direct service, programming, teaching, and outreach in libraries around information literacy.

These goals directly align with IMLS's goal of building the capacity of libraries to improve the well-being of their communities. A confident information literacy professional is more likely to contact a school with an offer to teach a research lesson; create programming with community partners on themes of media, health information, or data literacy; or create new services designed to help patrons with their research challenges.

Assumptions and Risks

The course assumes that the self-paced online model has multiple benefits. It allows students (busy professionals) to move through the content as their schedules permit and the curriculum can cover more material in greater depth than is possible in face-to-face training. Most importantly, the course can be made available to an unlimited number of library staff.

The primary risk is that library staff may not fully engage with the course content in order to gain the intended learning outcomes. Staff, especially credentialed librarians, may feel they already possess the knowledge contained within. Other staff may feel intimidated by a lengthy self-paced online course. Still others, while motivated to begin the learning experience, may find themselves at risk of not completing the entirety of the course.

A dedicated course instructor will help mitigate these risks. At no cost to access, the course will be freely available to join and explore to verify its usefulness. Modularized content will allow for some students to only engage with lessons of their choice, while the course cohort model will support the needs of others in an end-to-end learning journey. The course instructor will provide guidance and support throughout the learning process. Students who need clarity, have questions, or other support may communicate with the instructor at any time, increasing the likelihood that individuals will persist in their learning. Additionally, the course will provide opportunities for asynchronous and synchronous peer-to-peer learning via course discussion boards, scheduled meetups and discussions, giving attendees all possible opportunities to engage with the material in the manner best suited for them.

The secondary risk to the project is lack of awareness of this offering. New York State is a large and diverse state with a full range of public, private, college and university, and specialized libraries serving a wide range of patrons. This risk will be mitigated by having a full-time project coordinator/instructor devoted to promoting the course throughout Year 2. This individual will develop and implement a marketing and outreach campaign drawing upon the NYLA network of members and sections of affiliated professionals. The Coordinator will also directly target regional library systems who can share the course offerings with local libraries.

Detailed Project Timeline

Phase 1 - Planning and curriculum development: August 2020 - January 2021

BPL and the iSchool will collaborate to develop the course that will become the foundational element of the rest of the project.

Objective: During this phase of the project, 12 online course modules will be written and recorded.

Activities during Phase 1 include:

- Planning and coordination: Beginning with a planning meeting in August 2020, Mikel, Patin, and Clarke will meet to review course objectives, scope out the course syllabus, detail roles and responsibilities, and assign individual tasks. The partners will meet regularly throughout this phase to ensure close coordination.
- Syllabus development: The course syllabus will be finalized by November, with subject matter experts identified and finalized. The project team will use 'backwards design' (*Understanding by Design*, Wiggins and McTighe), a curriculum development process each have successfully employed in previous projects. The project team will first define what students should know, understand, and be able to do and identify the desired understandings for the 12 course modules.
- Engage subject matter experts: A team of respected experts in information literacy, library science, and instructional strategies will be engaged to develop nine of the twelve instructional modules. (Mikel will repurpose 3 hours of content from *Teacher Lab*.) The experts will be guided by the key understandings developed by the project team, collaborate with the team on acceptable evidence of student learning and then be responsible for designing instructional strategies that move students through the selected content. Each expert will meet with project leads; research, write, and record a lecture; design learning activities; and/or identify extension readings.
- Finalize curriculum materials and record online lessons: Modules will include a combination of recorded lecture, work activities, independent work, and readings. All twelve content hours will be finalized over December and January so that class is complete and ready to pilot by mid-January 2021.
- Write course supporting material: Mikel will write an instructor's manual detailing best practices for engaging with the learner. The project team and subject matter experts will formulate a course grading rubric to measure student engagement and achievement tied to course objectives. The rubric will detail multiple levels of attainment for meeting the assignment criteria and be used by the course instructor to assign a final (pass/fail) grade. The team will also collaborate on a course evaluation to measure change in students' capability and confidence in providing information literacy guidance and to solicit feedback on the course content, instructional methods, and pacing. Mikel and McGrath will write a manager's guide to engage supervisors in the training of their direct reports and provide guidelines for supporting them throughout the learning process.

The resources needed during Phase 1 include the time and expertise of the project team. Mikel and McGrath's time will leverage BPL's cost share contribution; Patin and Clarke's time will be covered through the payment to the iSchool as part of the allocation of grant funds. The subject matter experts will be paid honoraria supported through IMLS grant funds.

Phase 2 - Pilot course with BPL staff: February - July 2021

The curriculum will be tested and the project team will receive feedback on the efficacy of the course modules.

Objective: During this phase of the project, BPL public service staff (librarians and support staff) will complete and evaluate the course.

Project activities in Phase 2 include:

- Launching the course: The course will be widely promoted within BPL through staff meetings, newsletters, Slack (an instant messaging platform) and through the Library's six regional offices. Two course cohorts will be run on three-month cycles: February - April 2021 and May - July 2021. BPL administration will actively work with branch management to identify registrants for each cohort to help ensure staff are able to

complete all coursework during work hours. Managers will receive the Manager's Guide to help them support their direct reports. Those who complete the course will receive a certificate of completion for 12 hours of professional learning which may be applied to the New York State Public Librarian Certificate 60 hours requirement.

- Monitoring student progress: Mikel will serve as the program instructor overseeing every student's engagement throughout the course, assessing their work, and assigning a final pass/fail grade. She will report out regularly to the project team and subject matter experts about the student's progress.
- Assessment: Mikel will collect participant feedback in real-time as users take the course through discussion board posts, exit tickets and other formative assessment measurements. She will also compile course evaluations and a focus group of BPL staff will be convened for direct input. The data gathered will be shared with the project team in order to inform course refinements and enhancements. Follow-up surveys to learn how participants are implementing what they learned will be conducted four months after the conclusion of each cohort.

The resources needed during Phase 2 include Mikel and McGrath's time provided as part of BPL's cost share.

Phase 3 - Prepare for state-wide launch: July - Oct 2021

The course outcomes will be analyzed and the Year 2 curriculum refined based on feedback received during the pilot phase.

Objective: Revised course is prepared and ready to be delivered state-wide.

Project activities in Phase 3 include:

- Course analysis: Based on the course evaluations the project team will analyze how the course is meeting its objectives. Guiding questions will be: Did we accomplish what we intended? Why or why not? What needs to change? The project team will meet monthly throughout this phase.
- Syllabus re-development: Subject matter experts will be re-engaged to re-write course elements, refine activities, and re-record lectures if needed.
- Finalize other extension materials: The course instructor's manual and manager's guide will be refined as needed.
- Hire the program coordinator/instructor: The Program Coordinator/Instructor position will be filled by August 1. This individual will participate in all course analysis and redesign meetings in order to become thoroughly knowledgeable about the project and their responsibilities.

A third course cohort cycle for BPL staff will run during this time.

The resources needed during Phase 3 include Mikel and McGrath's time provided as part of BPL's cost share. The iSchool faculty's time will have been covered through IMLS grant funds payment to Syracuse University. Grant funds will be used to support subject matter experts to revise needed elements of the lessons. IMLS funds will support the program coordinator/instructor.

Phase 4 - Scale the course across New York State: Nov 2021 – July 2022

Library staff from across New York State will take the course.

Objective: The course is delivered to a wide-variety of library professionals and then prepared for national dissemination.

Project activities in Phase 4 include:

- Collaborate with NYLA: NYLA will include *Information Literacy Instruction for Library Professionals* in its professional development offerings. This will raise awareness of the offering among NYLA's 6,784 members: librarians of public, school, college and university and many special libraries, library trustees, and friends of libraries.
- Promote the program to regional libraries and through professional conferences: The project coordinator will promote the course to librarians and library systems throughout New York State working with NYLA and others. A marketing and outreach campaign will create messaging models that can be reused and adapted going forward. Promotion will happen through targeted email announcements, conference presentations, and individualized outreach. Special attention will be paid to rural library systems that have limited professional development opportunities for their staff.
- Scale course instruction: The rollout of the course statewide will provide a consistent level of training and knowledge for staff in New York libraries of all sizes and provide a significant professional development opportunity for smaller libraries with less resources. Staff who complete the course will receive a certificate of completion for 12 hours of professional learning credit, which may be applied to the New York State Public Librarian Certificate 60 hours requirement. Follow-up surveys will be administered to all course participants four months after they complete the course.
- Transfer the course to the iSchool: In the last two months of the project period, course material will be prepared to move to the iSchool to be offered as part of its continuing education program. As the course is transitioned, the project team will meet to assess data from participant registrations (to understand diversity of people taking the course and to ensure future iterations reflect diverse voices), from course evaluations, the follow-up surveys, and the Coordinator's direct experience with participants. This review will inform the iSchool's refinements to the curriculum. After the conclusion of the grant period the course will be sustained by nominal student fees (\$100 per) so that it can be run as demand requires. A limited number of BPL staff will be able to take the course free-of-charge. The course will be removed from other platforms at the conclusion of the grant period.

The resources needed during Phase 4 include IMLS funds to support the program coordinator/instructor. Grant funds will also be used to support the Learning Management System (LMS) to deliver the course.

Collaborators

The partnership between BPL and the iSchool at Syracuse University will leverage the capacity of a large urban library system and the resources of a leading academic program in library and information sciences. Since 1896, BPL's mission has been to ensure the preservation and transmission of society's knowledge, history and culture, and to provide the people of Brooklyn with free, open access to information for education, reference and recreation. The Library's vision is to be a center of knowledge and ideas for all, accessible 24 hours a day, and a leader in traditional and innovative library services which reflect the diverse and dynamic spirit of the people of Brooklyn. To achieve its mission and vision, BPL has historically focused on the needs of children, youth and families, especially those from vulnerable communities, while developing new programs and resources that have helped to establish the Library as a leader in literacy, out-of-school-time services, workforce development programs, older adult services, services to New Americans, digital literacy and cultural offerings. With a flagship Central Library and 59 branches, BPL is the borough's most democratic civic institution, where patrons of all backgrounds and every economic standing can participate in a wide range of educational, literacy, and cultural programs.

The School of Information Studies (iSchool) was established in 1896 and renamed as the Original Information School in 1974. The iSchool is a globally recognized leader in advancing knowledge and developing creative, thoughtful, and technically capable leaders in the information field. The school is committed to preparing students to be leaders in the information field, advancing knowledge and using information to solve problems faced by

individuals and organizations. It is a leading center for innovative programs in information policy, information behavior, information management, information systems, information technology, and information services. The iSchool's focus is on users and user information needs as the starting point for integrating information and information technology into organizations.

Audience and Beneficiaries

The primary audience and direct beneficiary for this project is public service library staff including professional librarians, support staff and others working directly with the public. The secondary, indirect project beneficiaries are the library users who will be provided with a greater depth and range of guidance in their information literacy and research skills by the library professionals who have engaged with the course.

In Year 1, the project will be piloted with Brooklyn Public Library public service staff. BPL serves a very diverse borough of 2.6 million residents. While one in five Brooklyn households has a six-figure annual income, one in five receives food stamp benefits. In Brooklyn 23% of adults and 30% of all children live in poverty. At least 67% of the borough's population falls within the county's low- to middle-income range. While 34% of adults ages 25+ have a college degree, 20% of adults ages 25+ lack a high school diploma or equivalency. A racially diverse community, Brooklyn also has a large number of immigrants. White Americans made up 55% of Brooklyn's population. Black Americans made up 34%; non-Hispanic blacks made up 33%, and Native Americans made up 0.3%. 37% of people living in Brooklyn are foreign-born and 46% of Brooklynites speak a language other than English at home. 12% of Brooklynites are age 65 or older and more than 53,000 are veterans.

In Year 2, the audience will broaden to libraries across New York State. NYLA will assist in promoting the course, officially listing the course in its continuing education offerings on its website, and circulating information about the course via emails, newsletters and social media messages to all its 6,784 members. It is believed that the course will be of special interest to several NYLA sections including the Public Library Section with 1,405 members; the Reference and Adult Services Section with 452 members; and the Youth Service Sections with 818 members. Outreach will be conducted by the BPL Program Coordinator/Instructor who will travel to at least four library systems throughout New York State to meet with administration and staff and create buy-in and investment in widespread enrollment and investment in the course.

Evaluation and Performance Measurement

The project advances IMLS's agency-level goals to:

- promote lifelong learning by supporting information literacy and strengthening the distinctive role of libraries as trusted sources of information;
- build capacity by training the library workforce and sharing best practices; and
- increase public access by improving library professionals' ability to instruct patrons in information literacy and by increasing the public's access to information and ideas through libraries.

The project's partners, BPL and the iSchool (with support from NYLA) will develop an evaluation framework informed by these goals in order to measure progress and make modifications as necessary. The project anticipates the following outcomes:

- 1) Library staff gain knowledge and confidence in information literacy, and related instructional strategies and techniques;
- 2) A model information literacy course for library professionals is tested, refined, and ready to share nationally;

- 3) Library professionals are capable of assisting patrons with information queries and searches in a wide variety of topics; and
- 4) Library professionals offer programs, workshops, services, and outreach on the topic of information literacy.

The evaluation and performance measurement tools, areas of focus, and uses are outlined below:

Evaluation Tool	Area of focus	Uses by the project team
Student surveys	To measure attendee pre- and post-course confidence in their knowledge of information literacy, instruction methods, and their confidence in working with patrons.	To assess the quality of the course modules, the pace and variety of course instruction methods, and to understand if the course is meeting the project goals and to inform course revisions.
Enrollment data	# of students who sign up for the course; # of students who complete the course	To understand the effectiveness of promotion efforts and the ability of the course to keep participants engaged.
Follow-up surveys	To discover how course participants are using the knowledge acquired in their professional practice.	To ascertain if the course is meeting the project goals and to inform course revisions.

The anticipated project outputs and outcomes include:

- 1) 200 BPL staff and 500 additional library professionals from across New York State gain increased knowledge and confidence in information literacy, and related instructional strategies and technique;
- 2) The *Information Literacy Instruction for Library Professionals* course is ready for piloting by February 2021, refined for state-wide dissemination by November 2021, and ready to be offered by the iSchool by September 2022.
- 3) 90% of course graduates report increased confidence assisting patrons with information queries and searches and programs on topics related to information literacy; and
- 4) 60% of course graduates report offering a new, revised or improved program, service, workshop or outreach initiative on the topic of information literacy.

III. Diversity Plan

This project supports core values of Inclusion, Diversity, Equity, and Access (IDEA) in all aspects of delivery, from the course design and execution to its stated outcomes and impact on communities throughout New York State.

Our operating principles adhere to the following definitions and standards:

- Inclusion is the ability to attract, accommodate, and involve a range of diverse people who feel valued, accepted, and comfortable participating in this course.
- Diversity is an inclusive concept encompassing -- without limitation -- race, color, ethnicity, gender identity, sexual orientation or identity; religion, nationality, age, economic class, educational level, language, physical, mobility and ability, geography, and marital and parental status. The state of being diverse means having the broadest possible representation of individuals, experiences, and perspectives in all-encompassing terms.
- Equity creates a level playing field for individuals or groups according to their respective needs, which may include equal treatment or treatment that is different but is considered equivalent in terms of rights, benefits, obligations and opportunities.

This project works to facilitate access by promoting equity and diversity, fosters inclusion and allows people to maximize their contributions and participation. The project team will adhere closely to the following diversity plan throughout every phase of project delivery, from planning to implementation to evaluation.

Course Design and Oversight

The project leads are committed to integrating IDEA principles into the entirety of the project, under the guidance of co-lead Dr. Beth Patin. In support of the project, Patin will use her expertise in Bias, Fairness, and Sensitivity, along with her pedagogical and research experience in cultural competence, cultural humility, and cultural responsiveness to make sure this course embodies IDEA principles. She will ensure these principles are considered in every phase of the project and that the curriculum itself will support a diverse community and promote equity within our libraries.

Subject matter experts and guest lecturers invited to contribute material will represent a diverse range of experiences and viewpoints. Project leads will work with the lecturers to co-design the learning objectives for their respective modules, respecting the expertise & insight of each lecturer in making the final determination of content, while ensuring cohesion of the course overall.

Course Audience and Beneficiaries

Historically, continuing education / professional development opportunities (both in-house training and funded travel opportunities to library conferences) in libraries and library systems are directed at degreed librarians. This course material is designed to meet the continuing education needs of library service staff members of all types: such as paraprofessionals, part-timers, circulation and technology specialists, as well as those holding Master's degrees in Library and Information Science. The course format and delivery will be designed to maximize reach across New York State's diverse geographies. An online, self-paced course is especially valuable for those who serve rural communities or work in smaller library systems with less opportunities for professional development.

The curriculum and learning activities, detailed in the Instructor's Manual, as well as the Manager's Guide, will explicitly provide recommendations and guidelines for supporting all staff throughout the learning process.

Course Curriculum

This project promotes the value of information equity by providing foundational training and resources to staff serving communities that would otherwise be lacking instruction on information literacy. The curriculum will guide public service staff in culturally responsive information literacy and instructional strategies such as identifying confirmation bias; fundamentals of resource diversity audits; inequities of search algorithms; inclusive presentation and programming techniques; principles of universal design; and teaching to a range of learning styles.

Project leads will design the course to meet a variety of learning styles. While the curriculum is estimated to take 12 hours to complete, the overall self-paced model allows for individuals to absorb the information and complete work assignments at their own pace. Each module will provide lecture content via visual lessons (for visual and aural learners), while independent work supports those who learn by doing (kinesthetic learners). Course discussion boards allow for sharing, reinforcement, and absorption of new knowledge (verbal learners), and the cohort model creates optional opportunities for peer-to-peer learning (social/interpersonal and solitary/intrapersonal learners).

IV. Broad Impact

At the conclusion of the grant period, the course will be transferred to the iSchool and will become available nationally. All materials will be freely available for use by other library professionals. *Information Literacy Instruction for Library Professionals* will share content, methods, and findings in the following ways:

- **Course content:** Throughout Year 2, while the course is promoted in New York State, enrollment will also be free and open for any library professional nationwide who wishes to enter the course and explore the content. Enrollment is required to access the course content (lectures, independent work, readings, etc.), allowing project leads to track overall interest, but enrollment does not imply intent to complete the course.
- **Sample student work:** With the permission of course graduates, select coursework and final assignments will be made freely available for other library professionals to take advantage of and use.
- **Published resources:** BPL and the iSchool's websites will make available the syllabus, instructor's manual, the manager's guide, and the extension materials. These materials can be accessed without enrolling in the course.
- **Professional publications and conferences:** Partners will publish articles in major trade publications, illustrating best practices and lessons learned; and will make every effort to have the project accepted for presentation at NYLA annual conference, the ALA Annual conference, and other major conferences.
- **Direct consultations:** Mikel and the Program Coordinator/Instructor will be available to consult with any library system or individual who wishes to replicate the course content for their own purposes.

Following the hoped for investment in the programs development by IMLS, the course will be fully self-sustaining structurally and financially. The iSchool will ensure that content reflects the most up-to-date approaches to information management and literacy. Fees collected through the continuing education program will cover the costs of nominal course updates and retooling. The partners expect to continue collaborating in the program's ongoing stewardship so that library professionals always have the program as a resource in their ongoing efforts to meet the changing needs of their patrons.

Through the two-year grant project, *Information Literacy Instruction for Library Professionals* will have been piloted with front-line library staff who will have tested the course's assumptions, vetted the content and teaching strategies, and applied what they learned to services and programs yielding a rich set of understandings to guide the curriculum's further development. After scaling the course across New York State, the applicability of the course will have been tested by many types of library systems and in multiple geographies. As the course is transferred to the iSchool it will have been sufficiently prepared to enter a period of maintenance and enhancing able to continue as a vital component of continuing education and life-long learning for library staff from across the country.



DIGITAL PRODUCT FORM

INTRODUCTION

The Institute of Museum and Library Services (IMLS) is committed to expanding public access to digital products that are created using federal funds. This includes (1) digitized and born-digital content, resources, or assets; (2) software; and (3) research data (see below for more specific examples). Excluded are preliminary analyses, drafts of papers, plans for future research, peer-review assessments, and communications with colleagues.

The digital products you create with IMLS funding require effective stewardship to protect and enhance their value, and they should be freely and readily available for use and reuse by libraries, archives, museums, and the public. Because technology is dynamic and because we do not want to inhibit innovation, we do not want to prescribe set standards and practices that could become quickly outdated. Instead, we ask that you answer questions that address specific aspects of creating and managing digital products. Like all components of your IMLS application, your answers will be used by IMLS staff and by expert peer reviewers to evaluate your application, and they will be important in determining whether your project will be funded.

INSTRUCTIONS

If you propose to create digital products in the course of your IMLS-funded project, you must first provide answers to the questions in **SECTION I: INTELLECTUAL PROPERTY RIGHTS AND PERMISSIONS**. Then consider which of the following types of digital products you will create in your project, and complete each section of the form that is applicable.

SECTION II: DIGITAL CONTENT, RESOURCES, OR ASSETS

Complete this section if your project will create digital content, resources, or assets. These include both digitized and born-digital products created by individuals, project teams, or through community gatherings during your project. Examples include, but are not limited to, still images, audio files, moving images, microfilm, object inventories, object catalogs, artworks, books, posters, curricula, field books, maps, notebooks, scientific labels, metadata schema, charts, tables, drawings, workflows, and teacher toolkits. Your project may involve making these materials available through public or access-controlled websites, kiosks, or live or recorded programs.

SECTION III: SOFTWARE

Complete this section if your project will create software, including any source code, algorithms, applications, and digital tools plus the accompanying documentation created by you during your project.

SECTION IV: RESEARCH DATA

Complete this section if your project will create research data, including recorded factual information and supporting documentation, commonly accepted as relevant to validating research findings and to supporting scholarly publications.

SECTION I: INTELLECTUAL PROPERTY RIGHTS AND PERMISSIONS

A.1 We expect applicants seeking federal funds for developing or creating digital products to release these files under open-source licenses to maximize access and promote reuse. What will be the intellectual property status of the digital products (i.e., digital content, resources, or assets; software; research data) you intend to create? What ownership rights will your organization assert over the files you intend to create, and what conditions will you impose on their access and use? Who will hold the copyright(s)? Explain and justify your licensing selections. Identify and explain the license under which you will release the files (e.g., a non-restrictive license such as BSD, GNU, MIT, Creative Commons licenses; RightsStatements.org statements). Explain and justify any prohibitive terms or conditions of use or access, and detail how you will notify potential users about relevant terms and conditions.

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

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

SECTION II: DIGITAL CONTENT, RESOURCES, OR ASSETS

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

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

A.3 List all the digital file formats (e.g., XML, TIFF, MPEG, OBJ, DOC, PDF) you plan to use. If digitizing content, describe the quality standards (e.g., resolution, sampling rate, pixel dimensions) you will use for the files you will create.

Workflow and Asset Maintenance/Preservation

B.1 Describe your quality control plan. How will you monitor and evaluate your workflow and products?

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

Metadata

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

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

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

Access and Use

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

D.2. Provide the name(s) and URL(s) (Universal Resource Locator), DOI (Digital Object Identifier), or other persistent identifier for any examples of previous digital content, resources, or assets your organization has created.

SECTION III: SOFTWARE

General Information

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

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

Technical Information

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

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

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

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

B.5 Provide the name(s), URL(s), and/or code repository locations for examples of any previous software your organization has created.

Access and Use

C.1 Describe how you will make the software and source code available to the public and/or its intended users.

C.2 Identify where you will deposit the source code for the software you intend to develop:

Name of publicly accessible source code repository:

URL:

SECTION IV: RESEARCH DATA

As part of the federal government's commitment to increase access to federally funded research data, Section IV represents the Data Management Plan (DMP) for research proposals and should reflect data management, dissemination, and preservation best practices in the applicant's area of research appropriate to the data that the project will generate.

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

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

A.3 Will you collect any sensitive information? This may include personally identifiable information (PII), confidential information (e.g., trade secrets), or proprietary information. If so, detail the specific steps you will take to protect the information while you prepare it for public release (e.g., anonymizing individual identifiers, data aggregation). If the data will not be released publicly, explain why the data cannot be shared due to the protection of privacy, confidentiality, security, intellectual property, and other rights or requirements.

A.4 What technical (hardware and/or software) requirements or dependencies would be necessary for understanding retrieving, displaying, processing, or otherwise reusing the data?

A.5 What documentation (e.g., consent agreements, data documentation, codebooks, metadata, and analytical and procedural information) will you capture or create along with the data? Where will the documentation be stored and in what format(s)? How will you permanently associate and manage the documentation with the data it describes to enable future reuse?

A.6 What is your plan for managing, disseminating, and preserving data after the completion of the award-funded project?

A.7 Identify where you will deposit the data:

Name of repository:

URL:

A.8 When and how frequently will you review this data management plan? How will the implementation be monitored?