

The Urban Libraries Council (ULC) in partnership with the National Summer Learning Association (NSLA) is requesting a National Leadership Grant for **Building Summer Equity: Middle School and STEM** as a lifelong learning project. The partners will enhance and scale field adoption of middle school STEM programs to advance equity focused models for summer learning. The 26-month project includes a total budget of \$766,232 with a match of \$412,912 and **\$353,320 requested from IMLS**.

This program builds directly on the recently completed [Partners for Middle School STEM](#) project, which was funded by IMLS. That project successfully piloted a proof of concept and resulting tools to strengthen the work of libraries across the nation with lowering barriers and engaging low-income youth in equitable and active STEM learning opportunities.

Building Summer Equity: Middle School and STEM is the second phase in this work and scales:

- **Summer Learning:** Libraries will apply the resources created by [ULC](#) and [NSLA](#) initiatives to target hard-to-reach middle school youth with essential STEM and leadership opportunities.
- **Middle School Youth Engagement:** Libraries will learn to amplify youth voice by employing proven, developmentally appropriate programming methods to reach youth with high-quality and effective project-based learning.
- **Equity and Access:** Libraries and their partners will design and pilot summer programs for youth in low-income communities. Staff will gain skills with asset mapping in their communities in order to find and build relationships with partners to reach previously unserved youth.
- **Local Partnerships:** The National Recreation and Park Association ([NRPA](#)) will join ULC and NSLA to advise and support summer learning partnerships built across local libraries, schools, local governments, parks and low-income communities.

Building Summer Equity: Middle School and STEM results in national resources:

- **Middle School and Summer Equity Challenge.** In 2022, ULC will build new resources to expand on the *Partners for Middle School STEM* peer learning cohort's work and will pilot these resources through a "Middle School and Summer Equity Challenge." In 2023, ULC will launch a second round of the challenge with an open invitation to all libraries nationally.
- **Summer Equity Assessment.** Lessons learned from the national challenge will be adapted into a summer equity assessment, including benchmarks and indicators to measure the performance of library leadership, partnerships and programs. This assessment will be hosted on partner websites and be part of the [Edge](#) benchmarking program.

Summer STEM learning will be more critical than ever in the coming years as STEM industries continue to lead the curve for job creation and as communities everywhere work to move beyond the pandemic. Building the capacity of today's libraries to engage low-income youth and families in STEM during the summer is essential for reversing COVID-19 learning losses and building a future-ready workforce.

Statement of National Need

The United States is seeing rapid growth in the number of science, technology, engineering and math (STEM) related jobs and will not be able to meet STEM workplace demands if we cannot engage, inspire and educate our growing and increasingly diverse youth populations (NSF, 2011).

Middle school is a key time for increasing exposure to and confidence in STEM. Middle school youth have increased capacity for intellectual processes and active learning including abstract thinking. Youth experience both a surge in brain development (NEA, 2014) and exposure to subjects that influence their interests and pursuits in high school, college and careers (Afterschool Alliance, 2010; YALSA, 2014; Maltese, 2014).

The achievement gap in math and science is particularly high for students who disproportionately face challenges linked to race and family income (NAEYC, 2018). Youth who lack access to high-quality STEM learning in out-of-school time (OST) and the summer fall behind their more privileged peers (Afterschool Alliance, 2015; NSLA, 2017). Often referred to as the “opportunity gap,” this inequity is magnified by lack of access to digital connectivity — which has been made even more urgent by COVID-19. In the wake of the pandemic, McKinsey reports that digital access issues have had the greatest impact on the formal and informal learning of youth of color and those from low-income families (McKinsey, 2020).

Schools cannot meet the needs of youth alone and often do not provide hands-on learning in a non-threatening environment, which is critical to building youth comfort, excitement and skills to explore their world, especially in STEM. The National Research Council (NRC) concluded that learning experiences across informal environments positively influence science learning in school, attitudes toward science and pursuit of science-related occupations (NRC, 2009). In a review of STEM education literature, Jakubowski et al. (2016) identified OST activities as essential to increasing achievement and diversity within the STEM disciplines.

Public Libraries, Youth and Summer

There is considerable research about the positive role that OST and summer experiences can play in student achievement and closing the opportunity gap (Afterschool Alliance, 2017; Afterschool Alliance, 2014; NRC, 2015). Students engaged in OST programming have a higher likelihood of being interested in STEM careers (Afterschool Alliance, 2014). STEM skills are linked to vocational and educational opportunities (White House, 2012). This, in turn, leads to increased earning potential and opportunity over the course of a lifetime (NRC, 2012).

As communities everywhere work to recover from COVID-19, public libraries are uniquely positioned to help youth develop the STEM skills they need for school, work and life success. Public libraries are highly trusted community anchors that many families and youth are aware of, live near and have engaged with during their early learning years. Libraries can provide the trust, awareness, access and active learning opportunities needed to lower STEM learning barriers for low-income youth and those from traditionally marginalized communities. By expanding and adapting their experience in STEM programming for teens and children, public libraries have a significant opportunity to develop programming targeted to meet the needs of underserved “tweens.”

In addition to building STEM interest, researchers have also found that high-quality OST programs provide youth with an inclusive social network and structure, nurturing adult facilitators and challenging learning experiences – offering them opportunities to form strong social bonds with peers and adults. These opportunities reflect the aspects of OST programs that youth themselves identify as the most valuable: supportive relationships with adults and peers, safety and opportunities to learn (Northwestern University, 2017). Further, a [review](#) of the research around social-emotional learning outcomes by Edutopia (2017) draws the line between strong social-emotional learning and positive youth outcomes.

Through the COVID-19 recovery process, libraries have an important role to play in helping youth face and heal from the trauma and social unrest of the pandemic, especially for low-income youth and those from communities who have been marginalized. As more and more youth are able to return to library buildings, deepening professional understanding and implementation strategies for strong social-emotional learning and positive youth outcomes will be critical, including integrating ACT for Youth's [Positive Youth Development principles](#) and Roger Hart's [Ladder of Children's Participation](#). By embedding positive youth development best practices in STEM programming, libraries can help close the digital divide and opportunity gap for youth while also fostering empathy, understanding, awareness and other social-emotional skills associated with resiliency and well-being.

Experience

ULC and its partner NSLA have worked to advance libraries as education leaders including projects funded directly by IMLS:

- **Leaders Library Card Challenge:** Another equity-based ULC initiative, the Leaders Library Card Challenge was launched in 2015 in partnership with the Council of the Great City Schools and IMLS. The Challenge created partnerships between libraries, schools and local government leaders to increase access to library resources for all students. The strong relationships built in the 105 participating communities endure today and have resulted in over 6 million children gaining access to library resources.
- **Summer Learning and Assessment:** In 2016, ULC and NSLA partnered to expand traditional summer reading programs by piloting active learning opportunities with grade school children. This work also developed and implemented assessment models for informal learning settings.
- **[Partners for Middle School STEM](#):** The current proposal builds directly on this IMLS funded proof of concept project, which developed replicable models, evaluation metrics, lessons learned and national resources to strengthen the capacity of libraries to build partnerships to reach and engage low-income middle school youth in STEM. The project's peer learning cohort of libraries represented both large, urban systems such as Chicago Public Library and small, rural systems such as the Algona Public Library in Iowa. The cohort's local pilots included:
 - Gwinnett County Public Library (Ga.) created [STEM in Spanish](#) programming to reach out to a community who doesn't often use the library, raise the awareness of STEM learning opportunities and increase the involvement of caregivers in students' education. The programming engaged youth in coding, robotics and sewing activities. Further, as part of this project, nine bilingual library staff volunteered to deliver other STEM programs.

- Prince George’s County Memorial Library System (Md.) and Pioneer Library System (Okla.) created the [STEM Pals](#) program, engaging middle school students in an eight-week program designed to improve STEM literacy, confidence and career awareness. The program offered youth an opportunity to work in teams (across the two libraries and via video chat) on STEM challenges and learning-based tasks using robotics and coding to address real-world issues.

Further, the resources and lessons learned from the *Partners for Middle School STEM* project have been distilled by ULC to create a *Strategic Playbook* and online *Quickstart Toolkit*, which are available to all libraries through ULC’s website. The playbook and toolkit provide resources, guidance and examples of leading work to help libraries build programs, staff capacity, partnerships and planning to reach and engage middle school youth with high-quality STEM learning experiences.

Project Design

Building on the prior project’s successful proof of concept and national tools, there is now an opportunity to support and strengthen the work of many more libraries to reach and serve low-income middle school youth.

The project design and risk mitigation are based on the following core assumptions:

- By connecting the existing middle school STEM resources, partners and models to summer learning, libraries will reach more underserved youth with equitable learning opportunities.
- Assessing the library’s current commitment to diversity, equity, inclusion and anti-racism allows the library to identify service gaps and address them with a sustainable plan, including action steps that work towards addressing inequities in service.
- Summer is the ideal time for public libraries to build their partnerships, models and confidence as STEM education leaders, since schools are out of session but learning gaps remain.
- It is essential for libraries to intentionally conduct outreach, build strategic partnerships and design programs in order to close learning and opportunity gaps for underserved youth, especially as these youth grapple with disproportionate hurdles due to COVID-19.
- ULC and NSLA have wide networks, trusted reputations and established resources (ULC’s *Quickstart Toolkit* and *Strategic Playbook*, NSLA’s [Summer Learning Playbook: A Bridge to Student Success and America’s Recovery](#) and [Summer Starts in September Program Planning Guide](#), and the Wallace Foundation’s [Summer Learning Toolkit](#)) that will enhance adoption of the models and frame the path for libraries who participate.
- Youth participation will be based on positive outcomes self-identified by youth of color, including: experiential learning, communicating clear expectations and cultural-based and nurturing challenges. (National Institute of Out of School Time).

The partner for this initiative is NSLA who is a national, non-profit organization focused on the powerful impact of one achievable goal: investing in summer learning to help close the achievement gap. NSLA uses the power of research, advocacy, training, and policy to transform America’s

neighborhoods and communities, one child at a time. They founded the summer learning movement and bring expertise, networks of OST and summer professionals and extensive tools and resources to inform, develop and inspire the participating libraries and their partners.

Goals of the project include:

- **Summer and Equity Models:** Libraries will target and serve hard-to-reach middle school youth with essential STEM opportunities so that underserved youth have active learning opportunities and communities expand effective, equity-based summer programming and resources.
- **Middle School Youth:** Youth will have an opportunity to explore their voice, serve in leadership roles and engage in proven, developmentally appropriate programming methods for high-quality and effective project-based learning.
- **Ecosystem Building:** Libraries will gain skills with asset mapping and understanding key demographics in their communities in order to find and build relationships with partners including schools, local governments, parks, businesses and other OST providers to reach previously unserved youth and to demonstrate their value in the education ecosystem.

Key Activities:

Stage One: Expanded Peer Learning Cohort Selection

ULC and NSLA will issue a national call for applications to create a peer learning cohort to pilot summer learning models. This will include an invitation to [peer cohort libraries](#) who are currently part of *Partners for Middle School STEM*. The partners will further increase the number of libraries participating by issuing an open call for applications, including an informational webinar.

Applications will identify each library's intent and community need for providing STEM opportunities to underserved youth in the summer. Libraries will be asked to provide a signed commitment from the library director/CEO and proposed project leader, as well as data and information on:

- Local demographics and summer opportunities/providers including how they identified their target youth.
- Current learning gaps and access barriers that impact their target community.
- Potential and current partnerships and relationships with local STEM educators, schools, businesses, local government leaders, park districts, summer camps and other ecosystem leaders.

A selection committee of four professionals – including a library director/CEO, middle school STEM pilot program leader, summer learning expert and youth development professional – will review and rank applicants. Criteria will be scored based on the following considerations:

- Has the library considered their local demographics, how to reach underserved youth and indicators of learning gaps in their community?
- Does the library demonstrate capacity in other programs or areas of service that indicates they have a history and/or baseline knowledge of serving youth, teens or children?
- Does the library plan to reach a population of youth who have not benefited from library programming/summer programs before?

- Does the library demonstrate an understanding in either effectively engaging middle school youth or other age groups in STEM learning?
- How effectively has the library thought about its connection to summer providers, schools and STEM partnerships?
- Does the library's size, location, experience or target community add diversity to this project?

Stage Two: Peer Learning Cohort and Rapid Prototypes

The selection process will result in 20- 25 library system participating in a peer learning cohort. Libraries will work together to design and rapidly prototype programs in the summer of 2022. The peer learning cohort will inform a new action workbook designed as part of a national challenge (see stage four below) to further scale models and frame key considerations, including indicators libraries should consider when focusing on summer equity.

Peer learning libraries will participate in an online community to explore critical issues, share lessons learned and connect with colleagues. Online support and engagement for this community will include webinars and trainings. The peer learning cohort activities will be conducted in four steps: 1) STEM program design, 2) engaging youth in active learning, 3) equity assessment and 4) rapid prototyping.

Cohort libraries will:

- Use the middle school STEM tools created by ULC to design high-quality, effective STEM learning programs based on evidence-based principles of youth development.
- Engage in new trainings focused on developing partnerships and youth program evaluation.
- Either create new programs or replicate/adapt the STEM Pals model by working across participating libraries in their approach.
- Leverage near-peer experiences to pivot middle school youth from learners to facilitators.
- Use tools created by NSLA including the *Summer Starts in September* guide to apply best practices for summer learning to their program models and partnerships.
- Create a theory of change and evaluation metrics with the support of an evaluation expert and use tools and resources to implement assessment in informal learning environments.
- Implement middle school summer learning pilots designed to quickly prototype and evaluate ideas.

Stage Three: Building National Resources

In preparation for the launch of the national challenge (see stage four below), ULC and NSLA will work together to distill models, programs, partnership frameworks and lessons learned from the pilots into a learning series and action workbook for the challenge. These resources will launch along with the challenge in September 2022 and scale up to engage new libraries for the summer of 2023.

Resources built by the partners for the launch of the challenge will include:

- **National Summer Challenge Toolkit.** ULC and NSLA will build on the summer learning pilots and peer learning cohort's work to launch new resources designed to equip and engage a greater number of libraries in the national challenge, which will launch in September 2022. For example, the application for the peer learning cohort will be adapted into a questionnaire for new libraries to assess needs and frame their interest as they start to participate in the national challenge.

The online resources will address five key areas for success. The five areas may shift and expand based on feedback from cohort libraries, but are currently anticipated to include:

- Stepping up to the summer learning challenge
- Building library staff STEM confidence
- Identifying youth who are underserved and reducing barriers to engagement
- Building partners and champions in the community
- Designing high-quality programs to engage middle school youth
- Evaluating and assessing programs in informal learning environments

The peer-learning cohort will participate in identifying what existing resources are most effective in lowering barriers and where new resources are needed to help libraries address summer learning equity gaps for low-income middle school youth.

- **Summer Equity Assessment.** The national challenge tools will be adapted and integrated into a self-assessment and resources designed for communicating with local leaders. The summer equity assessment will include three areas of performance benchmarks across library leadership, partnerships and programs. The assessment will be designed to help leaders frame how to approach and evaluate the transition from traditional summer reading programs to expanded summer learning opportunities. Each of the benchmarks will include five to six indicators/actions that libraries can take as well as case studies and program models to help leaders understand how to move from assessment to action.

Leaders from the peer learning cohort will be invited to participate in a Summer Equity Action Team that will also include experts on summer learning and youth development as well as key partners to advise the creation of the summer equity assessment. ULC will host the recommendations and action steps on its website, Edge platform and the ULC Knowledge Exchange, including integrations with other online frameworks and revisions of existing self-assessment questions to integrate the new standards.

Stage Four: Launch a National Challenge

Beginning in October 2022, ULC and NSLA will issue an open call to all libraries for participation in a national **Middle School and Summer Equity Challenge**. During the first year of the challenge in the summer of 2023, participating libraries will pilot models to provide robust and equitable STEM learning opportunities for youth, leveraging the online national resources and learning series.

Key activities will include:

- Issuing a national call for all libraries to sign on to the challenge in the fall of 2022.
- Launching a challenge toolkit including sign-up materials, planning resources, suggested models and evaluation tools.
- Launching a blog series focused on libraries closing the COVID-19 learning gap and summer learning recovery models.
- Leading a “Prepare for the Middle School and Summer Equity Challenge” recorded webinar series addressing how and why libraries should:

- 1) make the Middle School and Summer Equity Challenge commitment; 2) build partnerships, staff capacity and programs; 3) engage middle-school youth in co-designing programs; and 4) evaluate summer programming and communicate results to stakeholders.
- Launching the summer equity assessment nationally to help libraries identify and evaluate key performance measurements for their leadership, programming and partnerships.
- Implementing a media campaign to showcase libraries as summer equity leaders, including a challenge map to showcase national library commitment, projects, partners and pilots.

A key element of the national challenge will be to build awareness of STEM and summer learning gaps and opportunities for public libraries as well as schools, parks, public housing agencies, local government leaders, businesses and STEM partners. A national outreach campaign will target these stakeholders to increase interest, knowledge and engagement with the concepts and online tools.

Engagement strategies for these stakeholder groups will include:

- **Public Libraries:** ULC will use its communications channels (including websites, social media, blog, press releases and print advertisements) to develop and implement a campaign to share the stories, opportunities, models and resources with libraries of all sizes. This will include working with other national library associations to host conference sessions and share online resources, including COSLA, ARSL, ALA and PLA.
- **Schools, Parks, Public Housing Agencies and STEM Partners:** ULC will extend the national outreach campaign through its partnerships with NSLA, NRPA, HUD and the Council of the Great City Schools (CGCS).

Program Leaders and Key Consultants

- Susan Benton, President and CEO, ULC
- Elizabeth McChesney, Senior Program Leader, ULC
- Tandra Turner, Director of Strategic Initiatives, ULC
- Ximena Diaz, Project Manager, Programs and Initiatives, ULC
- Curtis Rogers, Director of Communications, ULC
- Paul Negrón, Senior Communications Manager, ULC
- Leslie Gabay-Swanston, Director of Program and System Quality, NSLA
- Allison Colman, Director of Health, NRPA

Metrics and Indicators of Success

ULC will continue to engage **HG&Co** as the initiative's evaluator. As principal investigator, Kate Haley Goldman brings extensive experience in STEM evaluation across the library, afterschool and museum fields, including as the evaluator on *Partners for Middle School STEM*. The evaluator will use surveys to establish the pre- and post-project states of cohort libraries to assess the change in their capacity for identifying and reaching underserved youth with STEM opportunities in the summer. This information will inform the development of national tools and help additional libraries integrate program evaluation into their designs, partnerships and programs.

Key indicators of success will include:

- Libraries understand how to advance summer learning and think about reaching underserved youth including partnerships with parks and schools. Goal metrics:
 - 80% of peer learning cohort libraries establish a new, or expand an existing, partnership with a park or school to reach target youth.
- Libraries increase their ability to deliver programming for underserved youth and capacity to provide STEM skill development opportunities. Goal metrics:
 - 100% of peer learning cohort libraries pilot STEM learning opportunities using youth development models.
 - 80% of peer learning cohort libraries report that their program staff have increased their knowledge and comfort with STEM programs.
 - 60% of peer learning libraries report they have met or exceeded their program's goal metrics.
- The national tools and resources lower barriers and increase the number of libraries reaching underserved youth in the summer. Goal metrics:
 - 60 communities (in addition to the 20 communities in the peer learning cohort) sign up and participate in the Middle School and Summer Equity Challenge.
 - 70% of the additional communities report they clearly identified underserved youth and took an action step to meet the challenge (e.g., created a new partnership, program or staffing model).
 - 50% of challenge libraries complete a summer equity assessment and report they used the information to take-action toward applying an equity focus to summer planning and assets.

Diversity Plan

Diversity, equity, inclusion and anti-racism underpin this initiative and participating libraries will work to identify, design for and reach low-income and underserved communities in order to intentionally dismantle systemic divides. Each pilot program will identify a target audience of underserved youth and apply strategies to address systemic barriers – such as bilingual programs, outreach to youth in the community and partnering with local professionals of color who can serve as STEM role models.

This project builds on ULC's core commitment to racial and social equity including its national Statement on Race and Social Equity, which serves as a baseline upon which libraries build policies and actions that make their communities more inclusive and just. It also builds directly on models and lessons learned from the preceding *Partners for Middle School STEM* project, through which libraries addressed systemic barriers to program participation including timing, location, transportation and youth's and families' cultures, languages and previous experiences with STEM.

Through **Building Summer Equity: Middle School and STEM**, ULC will continue to work with libraries to identify underserved audiences, key factors needed to successfully reach and engage those communities and partners who can strengthen outreach and the diversity of presenters and program facilitators. This will include working with libraries to help them reach communities where the majority of students receive free or reduced lunches and communities in rural areas where connectivity and transportation barriers limit OST learning opportunities.

Statement of National Impact

Research clearly shows the critical need for equipping youth with STEM knowledge, confidence and skills, yet many low-income youth and youth of color lack access to high-quality STEM learning opportunities, especially in the summer. As communities work to recover from COVID-19 and as STEM industries continue to lead job creation, closing STEM education equity gaps must be a top priority for all local leaders invested in the future success of their local youth and the community at large.

Public libraries provide essential education support for youth of all ages, particularly for those in communities that are disproportionately impacted by structural racism and systemic inequity. This project will **advance STEM equity conversations** across participating communities and **issue a national call for libraries to strengthen summer learning** so that low-income youth and youth of color can engage in robust STEM experiences and gain interest and confidence in STEM.

This initiative seeks to **elevate the role of libraries as education leaders** by scaling summer learning programs and partnerships so that: 1) more youth can positively engage with STEM during the critical “tween” years of cognitive and social development; 2) local government leaders, schools and summer learning providers better understand how public libraries can strengthen the education ecosystem; and 3) libraries build their capacity to understand and successfully respond to the critical importance of improving STEM and summer learning opportunities.

While there is a substantial body of research on library practices for children, libraries do not have as much **experience with middle school youth**. This project expands on ULC’s work to fill that knowledge gap and provide the field with actionable strategies for engaging middle school youth. It builds directly on ULC’s previous research and pilots showing that – in order to be successful with STEM – middle school students need opportunities to explore, the right level of intellectual challenge, active participation and chances to give meaningful feedback on the programs.

Further, this initiative is designed to foster increasing, sustainable adoption by expanding program models and engaging libraries in an open and ongoing national challenge including an implementation toolkit and resources. The challenge and peer learning cohort will include libraries of all sizes representing urban, suburban and rural communities to ensure the tools are effective across the nation. **ULC is committed to sustaining the summer learning challenge and building on the resources created by the project beyond this period of grant funding.** There is a goal of doubling the libraries participating by 2024 and NSLA will invite all challenge libraries to participate in its ongoing library learning community of practice.

At the conclusion of the project, participating communities will have new assets, knowledge, social capital, partnerships and opportunities they can leverage to strengthen their capacity to meet other education objectives.

The project will demonstrate and build on the growing understanding and appreciation for the role of public libraries in **education ecosystems**. At the conclusion of the project, participating communities will have new assets, knowledge, social capital, partnerships and opportunities they can leverage to strengthen their capacity to meet other education objectives. The importance of this role cannot be overstated, as public libraries are uniquely able to support the education of youth of all ages, particularly those most in need.

Urban Libraries Council

Building Summer Equity: Middle School and STEM 2021

Call for Applications: Peer Learning Cohort

August

Sept.

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March

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Peer Learning Cohort Selection

Pilot Design, Partnerships and Technical Assistance

Peer Learning Cohort

Library-Partner Summer Pilots for Middle School

Summer Equity Action Team

Resources and Tools Development

Summer Equity Challenge Toolkit

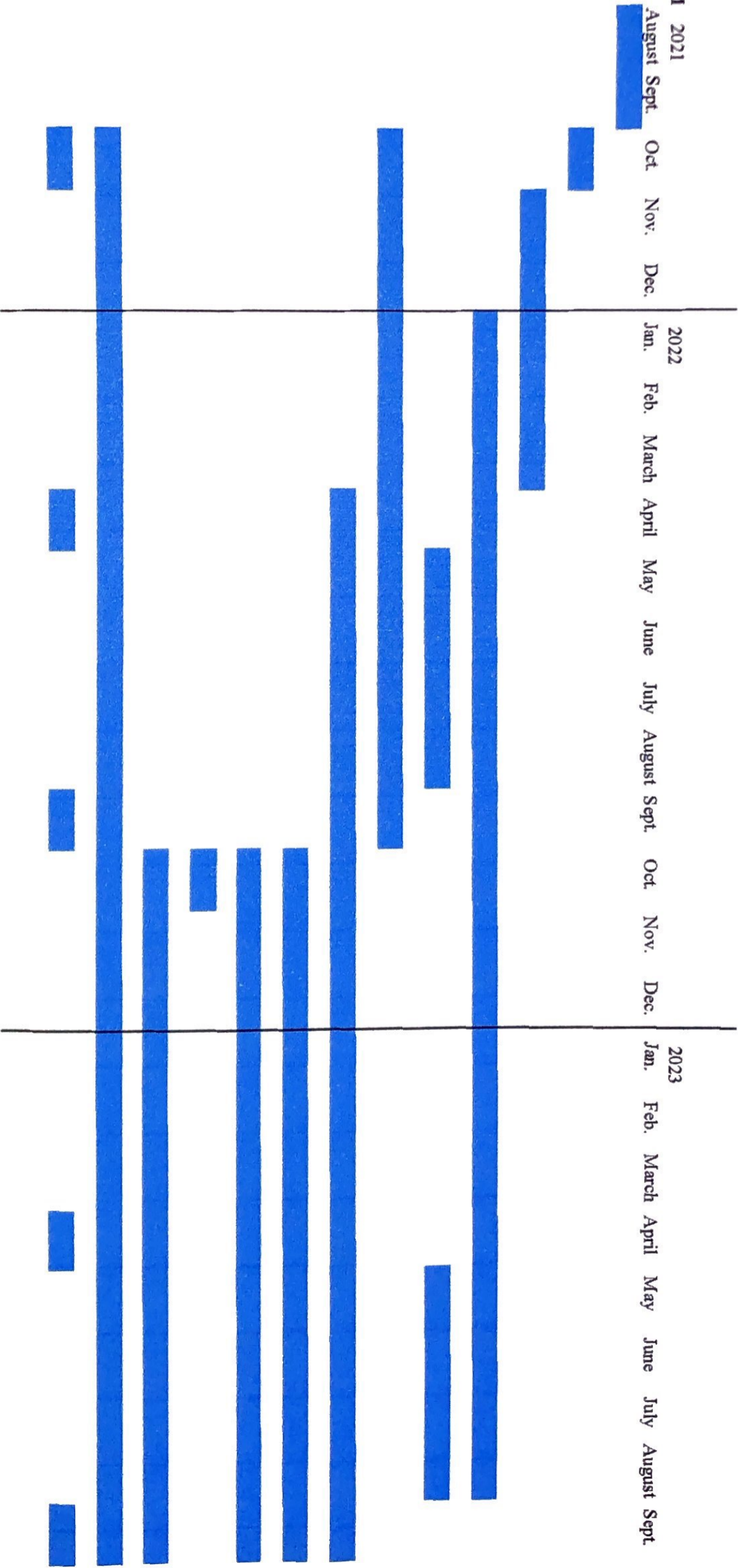
Summer Equity Assessment

NSLA Library-Partner Preconference

National Middle School and Summer Equity Challenge

Awareness and Adoption Campaign

Evaluation - Field Scans





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.

- The Urban Libraries Council will hold the copyright and will permit the public to access, read, download, and analyze all work without charge.
- Terms and conditions will be linked to from the copyright statement which will appear at the bottom of the tools, publications and resources.
- Use of the materials for any activities with a charge, for profit or royalties must be approved by ULC in advance and ULC reserves the right to refuse such requests.
- IMLS will have a royalty free, nonexclusive and irrevocable right to reproduce, publish, or otherwise use the work for Federal purposes and to authorize others to do so.

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.

- The Urban Libraries Council will hold the copyright and will permit the public to access, read, download, and analyze the work without charge.
- Terms and conditions will be linked to from the copyright statement which will appear at the bottom of the tools, publications and resources.
- Use of the materials for any activities with a charge, profit or royalties must be approved by ULC in advance and ULC reserves the right to refuse such requests.
- IMLS will have a royalty free, nonexclusive and irrevocable right to reproduce, publish, or otherwise use the work for Federal purposes and to authorize others to do so.

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.

- All contractors and libraries participating in the resources will sign an LOA stating they have the rights to the information shared and agree to its use.

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.

- Online Toolkit and Equity Assessment, with PDF, Word, videos and recorded webinar documents. The content will include five sections with 10 – 25 items in each section.

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.

- Microsoft office products, adobe platform

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.

- PDF, Word, XML and MPEG

Workflow and Asset Maintenance/Preservation

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

- The online toolkit will be created in compliance with the schedule of completion and all documents will be reviewed monthly for accuracy including replacing any dead links with new resources.

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).

- The online toolkit will be hosted as part of ULC's web platform. This will be maintained and updated during and after the end of the grant period.

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).

NA

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

NA

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).

NA

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).

The online toolkit will be hosted as part of ULC's web platform. It will be open to all libraries and the general public.

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.

www.urbanlibraries.org

www.edgelibrary.org

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.

NA

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.

NA

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.

NA

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

NA

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

NA

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

NA

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

NA

Access and Use

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

NA

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

NA

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.

NA

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?

NA

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.

No

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

NA

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?

NA

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

NA

A.7 Identify where you will deposit the data:

NA

Name of repository:

URL:

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

NA