Abstract: Librarians for Transformative Spaces (LiFTS) in Kosrae

Pacific Resources for Education and Learning requests a 1-year Sparks Grant within the National Leadership Grants for Libraries program for $25,000 to support Libraries for Transformative Spaces (LiFTS). LiFTS will be implemented from May 2018 to April 2019 in Kosrae, one of the four states in the Federated States of Micronesia, in collaboration with the Kosrae Department of Education, Rose Mackwelung Public Library, and the Kosrae Women's Association. LiFTS aims to explore how Indigenous placemaking in a library setting can influence user experiences and encourage generation of local bilingual content. To do so, the primary goal of LiFTS is to design and create model **write-spaces** in Kosrae—physical spaces with associated programming in school and public libraries—that are generative places designed to encourage storytelling and local content development. The LiFTS project team will engage in an iterative design process to enhance **user experience (UX)**, a library patron's physical and emotional journey in utilizing a space, product, or service by making it easier to use, more accessible, and enjoyable.

Currently, there is a near complete lack of materials written and published in Indigenous languages represented in our libraries across the US (Civallero, 2007) and Pacific (Todd, 2014; USED, 2016). And while much written about the role of *preservation* for libraries in Indigenous communities, LiFTS will explore the role of libraries in the *production* of Indigenous content. The project team will include PREL staff (2), Rose Mackwelung staff (2), and at least one school librarian from each village (6). Pilot participants will include around 100 community members and around 60 PreK–14 students. Intended outcomes are that (a) write-spaces encourage generation of local bilingual content in libraries and (b) participating librarians are confident in applying the UX guide and design thinking to their own spaces.

Phase 1 (May – July 2018): LiFTS project team will assemble the four-person advisory team to guide project design and implementation. The project team will then conduct a **needs assessment** of library usage and perspectives on storytelling with up to 50 potential and actual library users of varying age, gender, and home village. PREL will convene a **kick-off event** for the project and advisory teams to review the project goals and needs assessment and introduce UX design, self-publishing, and story creation. Content for the UX design introduction will be based on existing materials, such as *Design Thinking for Libraries* (IDEO, 2015).

Phase 2 (July – August 2018): The project team will utilize needs assessment data and existing UX design process resources to **co-develop a UX guide and pilot write-space programming** to meet the challenge of creating places that encourage the generation of bilingual content in and for Kosrae. In the process, the project team will explore questions about knowledge transmission in libraries in Kosrae and solutions to creating generative write-spaces, and then create small scale models and sketches to get feedback from advisory team and community.

Phase 3 (September 2018 – April 2019): The project team will **pilot** the write-space programming in (a) one weekend community event at Rose Mackwelung, (b) field trips for 30 high school students to Rose Mackwelung, and (c) library visits for at least 30 elementary school students to the library on their campus at the selected school site. Pilot spaces will be available for 4 months (September – December 2018) to give participants time to experiment and give feedback. After the pilot, the project team will regroup to **revise guide and write-space programming** and the final UX guide and write-space programming will be ready for wider **dissemination** to other libraries in the Pacific and nationwide.

LiFTS: Librarians for Transformative Spaces in Kosrae

Pacific Resources for Education and Learning (PREL) requests a 1-year Sparks Grant within the National Leadership Grants (NLG) for Libraries funding program in the amount of $25,000 for Libraries for Transformative Spaces (LiFTS). As a Sparks Grant, **LiFTS aims to explore how Indigenous placemaking in a library setting can influence user experiences and encourage generation of local bilingual content.** Effective placemaking in public spaces, such as libraries, is the process of building "creative patterns of use" (PPS, 2015) based on a community's values, modes of communication and relationship-building, cultural norms, and visions of the future. These patterns of use in a place—how people make sense of what they can do there, what they can find, and what they can make—are often established on first impression by the way that the place is physically organized, long before a user ever picks up a pamphlet, talks to a host, or experiences any programming.

The primary goal of LiFTS is to design and create model write-spaces in Kosrae, physical spaces with associated programming in school and public libraries, that are generative places designed to encourage storytelling and local content development. Physically, write-spaces will be organized to facilitate exchanges and recording of ideas. For example, write-spaces could include comfortable seating / physical arrangements to encourage conversation; computers and places to plug in laptops; recording equipment; writing/drawing desks with paper, pencils, pens, and markers; and inspirational materials, like prompts, videos and audio recordings, and bilingual books from Kosrae and beyond. Programming for write-spaces could include events with local storytellers, book/story readings, writing contests, and more. But to truly create write-spaces, the LiFTS project team will engage in an iterative design process to enhance user experience (UX), a library patron's physical and emotional journey in utilizing a space, product, or service by making it easier to use, more accessible, and more enjoyable. An iterative process is key to a more impactful UX design, as feedback from users throughout the design process ensures that final protoypes are reflective of community's norms, values, and vision for their own libraries and ways of knowledge transmission.

I. Statement of National Need

Contextually-Designed Indigenous Library Spaces to Amplify Utility

Libraries have the potential to support communities in unique ways, including Indigenous communities across the United States, by housing materials and records (e.g., stories, songs, dances), helping to strengthen oral traditions and endangered languages, promoting literacy and bilingual education at all phases of life, disseminating critical information, and connecting Indigenous communities to global culture (Civallero, 2007; Stevens, 2008; Roy, 2007).

However, there continues to be a near complete lack of materials written and published in Indigenous languages represented in U.S. libraries (Civallero, 2007). Further, Indigenous value systems are integral to multiculturalism (Hayes, 2012), as this reaches beyond simply offering access to information and transforms policy, services, architecture, staffing, and even how collections are organized (Hayes, 2012; Roy, 2007). Designing and redesigning Indigenous library spaces requires close collaboration with community, as the ways in which Indigenous knowledges are organized, created, shared, and accessed can differ greatly from that of Western knowledge, in ways that challenge conventional management tools and processes (Stevens,

2008). Without consistent representation of Indigenous people, cultures, and languages, libraries are missing opportunities to embrace their role as anchors in Indigenous communities.

LiFTS will take place in Kosrae, one of the four states of the Federated States of Micronesia (FSM). Kosrae has a population 6,616 people (FSM Office of Statistics, Budget, Overseas Development Assistance, and Compact Management, 2010). While both Kosraean and English are the official languages in the state, fewer than 2% of Kosrae's citizens speak English as their first language, and most are classified as Limited English Proficiency (FSM National Department of Education, 2015). The Kosrae Department of Education (KDOE) is working to revise the state's language education policy to strengthen bilingualism and biliteracy in both Kosraean and English for its pre-K to grade 12 students. Biliteracy promotes additive bilingualism: developing literacy in the first language (Kosraean) strengthens literacy in a second language (English). Still more work is needed to support this new policy and an essential component of effective policy implementation is the availability of appropriate bilingual texts across grades. In school-year 2015-2016, only 32% of grade 6 students meeting or exceeding the minimum competency levels for reading and English language arts (FSM National Department of Education, 2015).

Findings from PREL's Successful Early Eco-literacy Development program (IMLS LG-07-13-0326-13), recently been completed in Kosrae and the Republic of the Marshall Islands (RMI), indicate that teachers and librarians in both Kosrae and RMI requested more locally-relevant, bilingual materials and additional training on the use of materials to support language and content learning. Additionally, the U.S. Department of Education's *The Pacific Region: A Report Identifying and Addressing the Region's Educational Needs* (2016) identified "development of tools and resources for English language learners…specific to the distinctive demographics, culture, and education characteristics of each state" and "strengthening community and stakeholder engagement," as core needs.

Further, although there is not extensive investigation into library usability in Micronesia, researchers have noted a need for an ''indigenous context'' in Micronesian library and archival services (Gilliland et. al, 2008; Goetzfridt, 2007; Goetzfridt, 2013; Todd, 2014). This is a call for an Indigenous / Micronesian epistemological foundation and communication systems for operating libraries in the region, educating librarians and archivists, and organizing archives. And while much written about the critical role of *preservation* for libraries and archives in Indigenous communities, LiFTS will challenge the project team to explore the role of libraries in the *production* of Indigenous content.

UX Design to Drive User-Centered Innovation

Data in the *2014 Digital Inclusion Survey* shows that, even across the US, only 21.3% of libraries reported any type of renovation or site improvement within the last five year. The number is even lower (14.8%) in rural libraries. Libraries in the Pacific region (beyond Hawai'i) are renovated less often. Future renovations can take advantage of **user experience (UX) design**, which refers to designing a product or system to produce a specific experience for the user. Typically, this design process is iterative, in which the researcher traces the current experience and tries to redesign a solution to create a different, specific experience usually to increase utility, or ease of use and efficiency (ISO 9241-210). UX design is more common in the field and

study of human-computer interaction, but is also inspiring product and service design in other fields.

Similar theories include *service design*, a co-creative, transparent, "service ecology"-focused approach to operating a library that starts from the user's perspective (Marquez & Downey, 2015); and *place-making*, a philosophy for designing public spaces in ways that capitalize on the community's assets and potential to maximize happiness and health (PPS, 2015). "Good" places are accessible, comfortable, attract people to participate in activities, and are sociable (PPS, 2015). Place-making, in particular, also takes an iterative design process: identifying place and stakeholders, evaluating space and issues, place vision, short-term experiments, ongoing evaluation and long-term improvements (Pierce, Martin, & Murphy, 2010; PPS, 2015). Those short-term experiments—high-impact, low-cost improvements that can be refined over time (e.g., seating, public art, gardens, murals)—allow for a shorter feedback loop that makes the design process responsive to communities.

While UX design is still typically in the human-computer interaction field, there are existing library UX projects upon which LiFTS will draw inspiration and build upon, especially early in the project. Examples of existing resources include:

- *Design Thinking for Libraries* (IDEO, 2015), using design thinking to find solutions that address the needs of patrons; innovative solutions are desirable, financially viable, and technologically feasible
- *Library User Experience Design Toolkit* (SCAD, 2016) which outlines four steps to improving usability, accessibility, and pleasure in the interaction between the user and the product: Search (understand stakeholder needs and behaviors), Connect (collect data and find patterns that point to key insights about what needs to change), Advance (develop a prototype), Deliver (test and assess)
- *Transforming Library Spaces for Community Engagement* (Gutsche, Morris, & Stroisch, 2014), which outlines the process for community-based design: clarifying goals (with community), identifying stakeholders (who could benefit from a new library space?), seeking input (surveys, focus groups, interviews), communicating understanding (reflect on input, adjust expectations as needed), and putting input and understanding into action
- *Useful, Usable, Desirable* (Schmidt & Etches, 2014), which identifies 19 touchpoints for UX design, such as the website, email, furniture, parking lot, events, and newsletters.

UX design in transforming library spaces across the country; however, none yet apply directly to Indigenous communities. This approach may uproot assumed ways of communicating, educating, and organizing knowledge. As a Sparks Grant, LiFTS aims to explore how Indigenous place-making in a library setting can influence user experiences and encourage generation of local bilingual content.

II. Project Design

LiFTS builds on ongoing language policy and implementation efforts in Kosrae and consider ways in which users' experiences in public and school libraries could enhance the generation of local, bilingual reading and audio-visual resources needed to support language learning and knowledge transmission. Through LiFTS, librarians and library stakeholders will design and create model **write-spaces** in school and public libraries in Kosrae through a three-phase

process: (1) needs assessment and orientation, (2) UX guide and write-space programming development, (3) pilot and dissemination. Project outputs will include (a) a needs assessment of library use in Kosrae; (b) replicable, scalable model write-spaces; (c) prototype of self-published bilingual books that are place-based and aligned with the KDOE curricula; and (d) a publication of a replicable model (UX guide) for Indigenous write-spaces for national dissemination. Target audience will be about 8 school and public library professionals in Kosrae, as well as about 60 students in PreK to grade 14 (community college) students and about 100 community members to be impacted particularly through the pilot.

LiFTS write-spaces will be generative places within libraries—including physical areas and aligned programming—designed to encourage local content development and enhance library user experiences in Indigenous communities. While users will be encouraged to record (or have their knowledge recorded) in written form in order to help fill the dearth of Kosraean reading material, write-spaces can have audio-visual equipment available for recording.

Phase 1: Needs Assessment and Orientation (May – July 2018)
Upon receipt of award notification, PREL will assemble the project team—to include PREL staff (2), Rose Mackwelung library staff (2), and at least one librarian from each village (6)—as well as an advisory team to guide project design and implementation. This **advisory team**, selected not only to infuse the perspectives of educators and community in the development of the curriculum, but also to enhance the likelihood of their widespread dissemination and use, will be directly involved in the shaping of the UX guide and write-space programming. These individuals have agreed to participate or will be sought to participate on the advisory team, which will meet at the start of the project, throughout the guide and programming development, and after piloting (see Project Resources for advisory team list).

Next, the LiFTS project and advisory teams will hold a community meeting to notify community members about the project and initiate the **needs assessment (May – June 2018)**. The needs assessment is to identify current resources and attitudes toward library use among community sectors in Kosrae. PREL will create survey and focus group instruments to **survey up to 50 potential and actual library users**, varying by age, gender, and village. Survey administrators will ask questions, such as: Do you use your school or public library? If so, what activities do you do in the library? Who do you go to the library with? If not, what stops you from going to the library? The project team will also conduct a **focus group of local storytellers** representing different villages and ages (as possible). The facilitator will ask questions, such as: What is an appropriate setting(s) for telling a story? What would make the public library or a school library a better place for sharing and recording stories, music, and dances, especially for young people?

After the needs assessment, PREL will convene an **kick-off event for project and advisory teams (July 2018)**. During the kick-off, participants will receive an overview of the project, review needs assessment results, and receive an introduction to UX design, self-publishing, and story creation. Content for the UX design introduction will be based on *Design Thinking for Libraries* (IDEO, 2015), Savannah College of Art and Design (SCAD) *Library User Experience Design Toolkit* (SCAD, 2016), *Transforming Library Spaces for Community Engagement* (Gutsche, Morris, & Stroisch, 2014). The story creation portion of the orientation will be facilitated with support from local storytellers. Also during kick-off, the LiFTS project team will

decide where to install pilot write-spaces at Phase 1 so that the team can tie plans and prototypes to a physical space. Two pilot write-spaces will be constructed, one in Rose Mackwelung Public Library and at least one public school library, to be chosen by the team.

Phase 1: Needs Assessment and Orientation	
Key Activities	***Deliverables***
Assemble advisory team	Introductory meeting with advisory team
Develop needs assessment tools	Survey and focus group instruments
Conduct needs assessment surveys and focus group	Feedback from 50 potential and actual library users
Kick-off event with project and advisory teams on UX design and story creation	4 sessions (face-to-face) Participant materials

Phase 2: UX Guide and Write-space Programming Development (July – August 2018)
Right after the kick-off, the project team will begin co-developing a UX guide for local library write-spaces. The project team draw upon existing works, such as *Design Thinking for Libraries* (IDEO, 2015), to take a design-thinking approach to the challenge of creating places, including physical spaces and programming, that encourage the generation of bilingual content in and for Kosrae. Through a series of face-to-face and virtual meetings, the project team will **analyze needs assessment data**, looking for themes that provide insight into what the community wants and what would encourage content generation in the libraries. The project and advisory teams will also **explore questions about knowledge transmission in libraries in Kosrae** and solutions to creating generative write-spaces in local libraries. Such questions may include:

- What is an Indigenous/local learning space in Kosrae?
- When do our stories emerge?
- In what formats are stories best shared in community?
- How can community's generative spaces (e.g., church, events, ceremonies, family gatherings) be reflected in school/public libraries to support the library as a community hub for language learning and knowledge sharing?

Based on needs assessment data and this new understanding of UX design in Kosrae, the group will **create small scale models and sketches**. The project team will share those models and sketches with the advisory team, and other community members as needed, for feedback. The draft UX guide will include a summary of the project team's input on the above questions and recommendations on physical space, marketing or communicating available services to community, policy, and more for Indigenous library write-spaces.

Then, the project team will **develop the pilot write-space programming**, including creating their own workshop series to support students, teachers, and community members in utilizing their library's write-space and possibly generating their own text to test their write-space ideas. In Phase 2, PREL staff will facilitate project and advisory team meetings, using hands-on and reflective activities to encourage idea generation and sharing. Facilitation approaches will be

based on PREL staff experience, as well as existing resources like *Design Thinking for Libraries* (IDEO, 2015) and *Library User Experience Design Toolkit* (SCAD, 2016).

Phase 2: UX Guide and Write-space Programming Development	
Key Activities	***Deliverables***
Develop UX guide, adapting processes from existing materials ● Use design thinking and assessment data to imagine library write-spaces, create models, and collect feedback ● Use feedback to draft best practices in UX design for library write-spaces	4 sessions (face-to-face) Feedback documentation Models and sketches Draft best practices in UX design (guide)
Develop write-space programming, a workshop series to support users in creating written resources	2 sessions (face-to-face or virtual) Draft write-space programming, including list of needed supplies

Phase 3: Pilot, Revision, and Dissemination (September 2018 – April 2019)
After the UX guide and write-space programming are drafted, the project team will pilot the write-space programming in (a) one weekend community event at Rose Mackwelung, (b) field trips for 30 high school students to Rose Mackwelung, and (c) library visits for at least 30 elementary school students to the library on their campus at the selected school site. During the events, participants (e.g., students or community members) will be invited to bring their story ideas to write or draw or bring their older relatives to record their stories in writing or video. Community members and students may also engage in inspirational activities as part of the pilot write-space programming, such as stories told by popular local storytellers or 'open mic' time for new storytellers to share. Each event will be followed by a participant debrief for feedback on user experience. **Pilot spaces will be available for 4 months (September – December 2018) at the start of the school year to give participants time to experiment and give feedback.**

Project partners will encourage and facilitate broad participation in the pilot through several means: project partners may inform communities through regular community and school meetings; KDOE will provide transportation for field trips, as needed; the Kosrae Women's Association will notify its network of the pilot events and encourage families to participate; PREL and KDOE will give an orientation to teachers—especially at the pilot elementary school, high school, and college—at the start of the school year to encourage teachers to bring their classes to the write-spaces.

After the pilot, the project team will regroup to review results of pilot and **revise guide and write-space programming (January – March 2019)**. The final UX guide, write-space programming, and texts developed in Phase 2 will be ready for **wider dissemination (April 2019)** to other libraries in the Pacific, the Pacific Islands Association of Libraries, Archives, and Museums (PIALA), and national audiences. The project and advisory teams may also give an

update to the community through regular community and school meetings and may consider submitting an article to *Weave: Journal of Library User Experience* [https://www.weaveux.org/].

Phase 3: Pilot and Dissemination	
Key Activities	***Deliverables***
Pilot write-spaces with a community event and student field trips	Participant debrief documentation
Refine and disseminate UX guide and write-space programming	Refined UX guide and write-space programming materials Final materials shared with PIALA, on PREL website, and through article submission

Evaluation

Evaluation will be embedded, particularly at the UX guide development and write-space piloting and will monitor write-space usage by students, teachers, and community members (quantitative), as well as to what extent generative spaces in libraries impact attitudes of users toward their libraries as community hubs for learning and knowledge sharing (qualitative, quantitative). Data will be collected via survey and interviews of participating students, teachers, and community members. Project outputs will include (a) a needs assessment of library use in Kosrae; (b) replicable, scalable model write-spaces; (c) prototype of self-published bilingual books that are place-based and aligned with the KDOE curricula; and (d) a publication of a replicable model (UX guide) for Indigenous write-spaces for national dissemination. The table below describes how evaluation data will be collected on project inputs, activities, and outcomes.

	Focus	**Driving Question(s)**	**Instrument**
Input: Librarians & Library Stakeholders	Impact	Baseline on user experience gathered through needs assessment	Survey Focus group
Activity: UX Guide	Implementation	Does the project team successfully develop a UX guide?	UX Guide
Activity: Write-Space Programming	Implementation	Does the project team successfully develop write-space programming?	Write-Space Program
Outcome: User experience in newly designed spaces	Impact	Does the new design and programming influence user experiences and encourage generation of local bilingual content?	Pilot survey
Outcome: Confidence in UX design among librarians	Impact	Are librarians confident they can apply what they learned about UX design in LiFTS to their own spaces?	Project team focus group

Project Resources

PREL will serve as the project lead and manage all phases on the project in collaboration with partners. PREL is an independent nonprofit organization that serves the Pacific community with educational programs and services. Areas of work include languages and literacies; science, mathematics, and ecoliteracy; parent and community engagement, culturally responsive curriculum and resource development; teacher and leadership development; and assessment and program evaluation. PREL has collaborated closely with libraries and museums around the Pacific region to offer librarian professional development and community-based projects, such as SEED: Successful Early Ecoliteracy Development (IMLS LG-07-13-0326-13).

Kosrae Department of Education (KDOE) is the only state education agency in Kosrae, operating six elementary schools and one high school. The official languages of instruction are Kosraean (grades K–3), Kosraean and English (grades 4–5) and English only (grades 6–12). Kosrae has a K–12 student enrollment of approximately 2,286. Each school has its own library and librarian, as well as access to the public library.

Rose Mackwelung Public Library is the only public library in Kosrae and is operated by the KDOE. Situated at the center of town, the library serves the public, as well as high school students and students from the College of Micronesia. In its collection, the library houses 15,000 reference materials, children's books, fiction and nonfiction materials, and Pacific island resources. Rose Mackwelung Library is a member of the PIALA.

Advisors. LiFTS will assemble an advisory team to to guide project design and implementation. Advisors will be directly involved in the shaping of the UX guide and write-space programming. Specifically, they will be called upon to participate in and help facilitate parts of the kick-off event, review write-space prototypes and draft UX guide before the pilot, help inform the community about the pilot, and help to revise the final write-space prototypes and UX guide.

- **Srue W. Kephas**: President of the Kosrae Women's Association and KDOE early childhood education specialist
- **Quartus Esau**: KDOE Chief of Curriculum and Instruction, former KDOE Language Content Area Specialist
- **local storyteller (TBD)**: expertise in Kosraean traditional stories; local story construction; oral tradition, games, and/or music
- **national advisor (TBD)**: expertise in library services for Indigenous populations, physical and/or digital placemaking in libraries for and with Indigenous users

Key Personnel. Corrin Barros, Senior Research Specialist at PREL, will serve as project director and oversee the completion of all deliverables. Ms. Barros was the project director for SEED and currently serves as the Principal Investigator for Principal Investigator for Phase II of the Pacific islands Climate Change Education Partnership (PCEP; NSF #1239733), the K-14 climate education initiative funded by the NSF. In her work, Ms. Barros pursues and supports projects related to educator professional learning, design, planning, and traditional ecological knowledge in science education. She holds a bachelor's degree in biology from Linfield College and a master's degree in urban and regional planning from University of Hawai‘i at Mānoa (0.03 FTE).

Joyminda George, Program Specialist at PREL in the Kosrae office, will lead on-the-ground project coordination. In her work at PREL, Ms. George works to support curriculum and professional development training for teachers, primarily in projects related to language policy development, climate change, and garden-based learning. Previously, Ms. George was a Bridging Gap & Education Specialist with the Federated States of Micronesia National Department of Education, and environmental educator with the Kosrae Island Resource Management Authority, and teacher at Malem Elementary School. She holds a bachelor's degree in education from the University of Guam (0.17 FTE).

Time. LiFTS will start on May 1, 2018 and finish by April 30, 2019. The schedule of completion provides an overview of activities along the proposed timeline. PREL staff will have 460 hours and have the capacity to accomplish the proposed activities within the timeframe.

Budget. PREL requests a total budget of $25,000. This includes: $7,844 (salaries and wages), $2,353 (fringe benefits), $3,105 (travel), $1,014 (supplies, materials, & equipment), $1,394 (facilities), $4,358 (other: PREL services and stipends for advisors and librarians), and $4,932 (indirect costs at PREL's federally-approved rate of 27%).

Communication Plan

LiFTS project team will be eager to share the final UX guide and write-space programming, as well as results from the pilot, with other libraries in the Pacific and nationwide. Findings from LiFTS will be disseminated via (a) community meetings in Kosrae, (b) PREL's website and social media platforms, (c) proposals to professional conferences, such as PIALA, Pacific Education Conference, and Micronesian Teachers Education Conference, and article submissions to journals such as *Weave: Journal of Library User Experience*.

Sustainability

After the project ends, new write-spaces will remain available for patrons at the select school library and Rose Mackwelung library. The UX guide and write-space programming will also inform future library improvement projects in Kosrae. Any additional infrastructure would be supported by KDOE. Librarians and library stakeholders in Kosrae that participate in LiFTS will also leave the project with additional capacity in design thinking, which can be applied to address the needs of public library users, students and teachers, local storytellers, and beyond at multiple levels. Additionally, as outputs of a Sparks Grant, the UX guide and write-space programming will provide a basis for future proposals for all project partners in applying the UX design best practices to other learning spaces, as well as expanding the write-space programs.

III. Diversity Plan

LiFTS focuses on library professionals and stakeholders in the small, rural communities of Kosrae, who in turn, serve K–12 students and teachers and community members, nearly all of whom are English language learners. To ensure that the needs assessment, UX guide, and write-space programming represent the diversity of the Kosrae community, LiFTS will recruit participation from across Kosrae's six villages, as well as across age and gender. More specifically, there will be representation across villages, age, and gender in needs assessment survey and focus groups, in the pilot (with field trips for multiple grades and a community event), and in participating librarians. LiFTS will include at least one librarian per village.

Additionally, LiFTS activities will be overseen by an advisory team that will include a representative from the KDOE, a local storyteller, and a representative from the women's group, along with an advisor with expertise in Indigenous librarianship beyond Kosrae. Local advisors are already in respected leadership positions in the community, ensuring that their advice will be received by the project team. Further, a representative from the women's group will help to ensure that women's stories can be represented in LiFTS write-spaces, since women's stories are often told in different ways and to different audiences than the usual (male) storyteller.

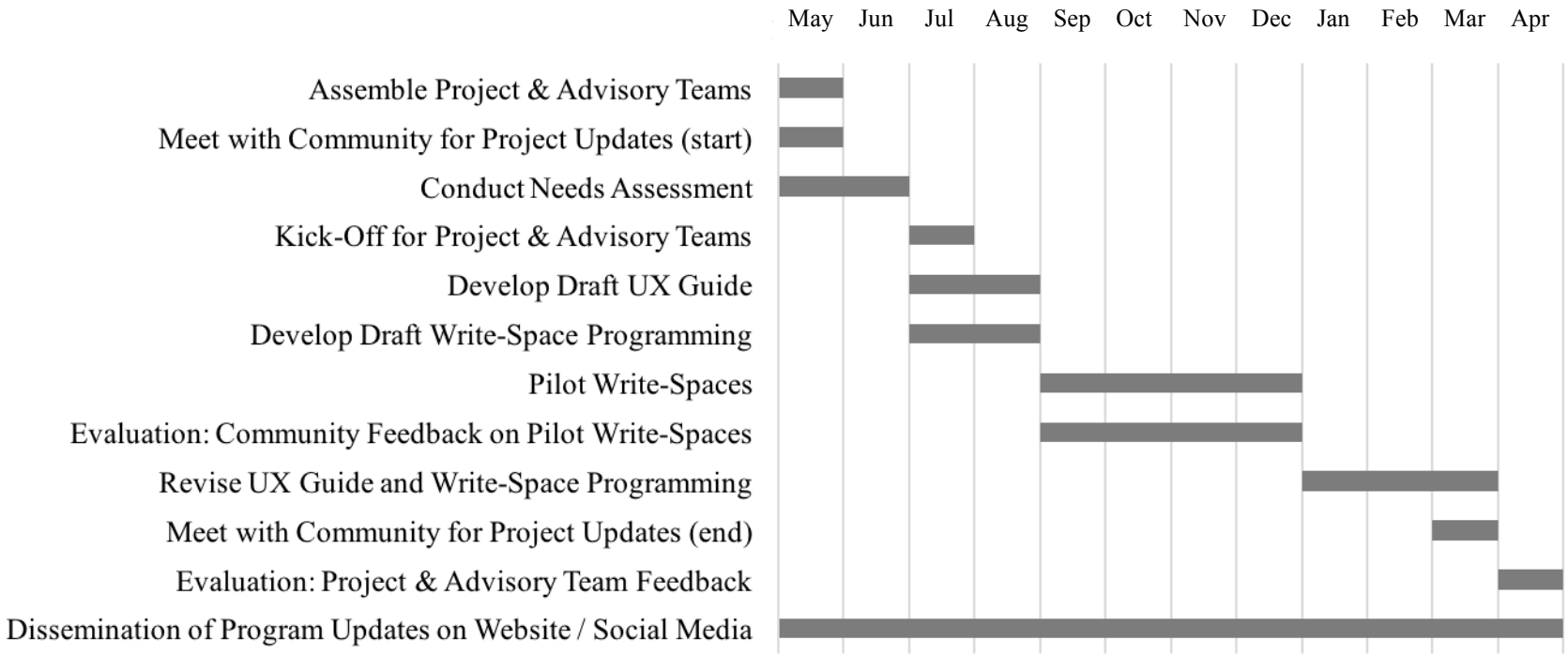
IV. National Impact

LiFTS will explore Indigenous place-making in libraries to support bilingual learning and content generation and will result in a replicable UX guide for Indigenous write-spaces that can be utilized nationwide. LiFTS intends to address IMLS Agency-level **Goal 1: Learning by providing inclusive and accessible learning opportunities for students and communities and supporting library professionals** in (a) increasing confidence among librarians in generating and publishing bilingual texts appropriate for libraries and schools in Kosrae; and (b) increasing librarian's knowledge and skills in training peers to create write-spaces. Librarians will be deeply engaged in LiFTS, from the kick-off through creating and piloting protoype write-spaces. Data will be collected to measure progress toward meeting the stated performance goal and **performance measure [I am confident I can apply what I learned in this program/training]**, including data on (a) number of participants in pilot; (b) changes in understanding, interest, and confidence among project team; and (c) total responses will be collected through a pre/post survey of the project team and short surveys during write-space pilot activities.

Within Kosrae and the Pacific region, project efforts will be sustainable past the performance period as the new write-spaces will remain open in Kosrae libraries and the UX guide will be made publicly available on PREL's website and shared at PIALA meetings. And although Kosrae is a unique environment, the UX guide could be applied in communities around the country that are seeking to better connect with and serve Indigenous communities. Including an advisor from beyond Kosrae with experience in Indigenous librarianship will help to ensure that LiFTS aligns with and pushes the trend in other communities, while also providing a channel for connecting LiFTS findings beyond the Pacific. Additionally, findings and products (including the UX guide and write-space programming) will be shared broadly through PREL's website, social media, and through article submissions to journals on library user experience.

Schedule of Completion

Below is the schedule of completion for Librarians for Transformative Spaces (LiFTS) in Kosrae, scheduled to begin on May 1, 2018 and finish on April 30, 2019.



DIGITAL PRODUCT FORM

Introduction
The Institute of Museum and Library Services (IMLS) is committed to expanding public access to federally funded digital products (i.e., digital content, resources, assets, software, and datasets). The products you create with IMLS funding require careful stewardship to protect and enhance their value, and they should be freely and readily available for use and re-use by libraries, archives, museums, and the public. However, applying these principles to the development and management of digital products can be challenging. 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

- ☐ Please check here if you have reviewed Parts I, II, III, and IV below and you have determined that your proposal does NOT involve the creation of digital products (i.e., digital content, resources, assets, software, or datasets). You must still submit this Digital Product Form with your proposal even if you check this box, because this Digital Product Form is a Required Document.

If you ARE creating digital products, you must provide answers to the questions in Part I. In addition, you must also complete at least one of the subsequent sections. If you intend to create or collect digital content, resources, or assets, complete Part II. If you intend to develop software, complete Part III. If you intend to create a dataset, complete Part IV.

Part I: Intellectual Property Rights and Permissions

A.1 What will be the intellectual property status of the digital products (content, resources, assets, software, or datasets) you intend to create? Who will hold the copyright(s)? How will you explain property rights and permissions to potential users (for example, by assigning a non-restrictive license such as BSD, GNU, MIT, or Creative Commons to the product)? Explain and justify your licensing selections.

The intellectual property status and copyrights of any digital products will be shared among project partner, as well as individuals that share intellectual property (e.g., written or recorded stories, artwork). See A.2. for specific details on ownership rights. Additional details on intellectual property, including appropriate ways to explain property rights to knowledge sharers, will be determined during project planning meetings during Phase 1 of project.

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.

PREL, Kosrae Department of Education, and individual knowledge sharers with whom project partners collaborate to support Librarians for Transformative Spaces (LiFTS) in Kosrae will jointly hold the perpetual, royalty-free, nonexclusive, irrevocable and worldwide right to use, copy, distribute, display, perform, transmit, adapt in any way in any media created during the award period. All parties will have the right to authorize others to use the materials. Any media (e.g., photos, videos, excerpts) produced prior to the project that is later incorporated into the project will not be transferred in copyright to anyone else. Anything not created by or through LiFTS and used with permission by LiFTS does not become property of anyone else and remains exclusive copyright of original owners. This includes intellectual property shared by Indigenous knowledge holders/sharers (U.N. Declaration of the Rights of Indigenous Peoples, Article 31, 2007). Terms of access and conditions of use will be included as part of the product descriptions.

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.

Advisors will be consulted on any potentially sensitive information about Kosraean language and culture that might be included on digital products. Project staff will collect consent and release agreement from participating adults, youth, and youth's parents/guardians prior to having photographs and videos taken. Project staff will also seek permission from

participants to incorporate their intellectual property (e.g., quotes, artwork) prior to incorporating the materials as part of the project's digital products or disseminating materials to other libraries and partners.

Part II: Projects Creating or Collecting Digital Content, Resources, or Assets

A. Creating or Collecting New 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 format you will use.

Digital content and assets created during the award period may include bilingual (Kosrae/English) written stories that may or may not include accompanying illustrations or photographs, as well as audio and/or video recordings of storytellers, created by project participants (e.g., community members and K–12 students engaging in pilot write-space programming). Additionally, project staff may create photos and videos to archive project activities, as well as project updates via email and social media. Project partners, specifically PREL and Kosrae Department of Education, may also update organization websites with project updates and digital content. Specific details on the number and format of digital products will be discussed and finalized with the project team and advisory team with input from library users during needs assessment.

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

Project partners will use desktop computers and laptops, photography cameras, and video recorder to record project events. Additionally, video and photography cameras and audio recorders may be made available to project participants to record stories or illustrate writings. Any additional equipment, software, and supplies will be determined during project planning meetings and listening sessions.

A.3 List all the digital file formats (e.g., XML, TIFF, MPEG) you plan to use, along with the relevant information about the appropriate quality standards (e.g., resolution, sampling rate, or pixel dimensions).

Digital file formats may include .png and .jpg for photos and .eps (Adobe Illustrator) and .pdf for written materials. In both instances, resolution will be optimized for online distribution and printing. Any videos produced will be in 1080p HD broadcast (.mp4) format and will be optimized for frame rate, aspect ratio, and resolution appropriate for online distribution.

B. Workflow and Asset Maintenance/Preservation

B.1 Describe your quality control plan (i.e., how you will monitor and evaluate your workflow and products).

PREL will serve as lead for control quality of the digital products and uses a quality assurance process for all publications and products to review for content, cultural validity, and appropriateness. Quality metrics and checklists, work plan to develop products, and quality control measurements will be determined at initial project planning meetings, and revised as needed based on input from listening sessions. Progress and updates will be addressed as part of regular meetings between key project partners.

B.2 Describe your plan for preserving and maintaining digital assets during and after the award period of performance. Your plan may 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).

Digital products (photos, videos, written stories produced by project participants) will be stored and preserved on a website maintained by PREL (prel.org). This site, including any content created during the award period, will continue to be maintained after the award period. During the award period, project partners will utilize a file-sharing site (e.g., Google Drive) to share and store digital products in draft and final form. After the award period, PREL will also maintain copies of the final digital products on the organization's internal file-share tool (Xerox DocuShare).

C. Metadata

C.1 Describe how you will produce any and all technical, descriptive, administrative, or preservation metadata. Specify

which standards you will use for the metadata structure (e.g., MARC, Dublin Core, Encoded Archival Description, PBCore, PREMIS) and metadata content (e.g., thesauri).

n/a

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

n/a

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).

n/a

D. 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).

Openly available online and at school and public libraries in Kosrae.

D.2 Provide the name(s) and URL(s) (Uniform Resource Locator) for any examples of previous digital content, resources, or assets your organization has created.

http://prel.org
http://gardens.prel.org/
http://pcep.prel.org

Part III. Projects Developing Software

A. 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.

n/a

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

n/a

B. Technical Information

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

n/a

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

n/a

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

create.

n/a

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

n/a

B.5 Provide the name(s) and URL(s) for examples of any previous software your organization has created.

n/a

C. Access and Use

C.1 We expect applicants seeking federal funds for software to develop and release these products under open-source licenses to maximize access and promote reuse. What ownership rights will your organization assert over the software you intend to create, and what conditions will you impose on its access and use? Identify and explain the license under which you will release source code for the software you develop (e.g., BSD, GNU, or MIT software licenses). 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.

n/a

C.2 Describe how you will make the software and source code available to the public and/or its intended users.

n/a

C.3 Identify where you will deposit the source code for the software you intend to develop:

Name of publicly accessible source code repository: n/a

URL: n/a

Part IV: Projects Creating Datasets

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

n/a

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?

n/a

A.3 Will you collect any personally identifiable information (PII), confidential information (e.g., trade secrets), or proprietary information? If so, detail the specific steps you will take to protect such information while you prepare the data files for public release (e.g., data anonymization, data suppression PII, or synthetic data).

n/a

A.4 If you will collect additional documentation, such as consent agreements, along with the data, describe plans for preserving the documentation and ensuring that its relationship to the collected data is maintained.

n/a

A.5 What methods will you use to collect or generate the data? Provide details about any technical requirements or dependencies that would be necessary for understanding, retrieving, displaying, or processing the dataset(s).
n/a

A.6 What documentation (e.g., data documentation, codebooks) will you capture or create along with the dataset(s)? Where will the documentation be stored and in what format(s)? How will you permanently associate and manage the documentation with the dataset(s) it describes?

n/a

A.7 What is your plan for archiving, managing, and disseminating data after the completion of the award-funded project?

n/a

A.8 Identify where you will deposit the dataset(s):

Name of repository: n/a

URL: n/a

A.9 When and how frequently will you review this data management plan? How will the implementation be monitored?

n/a