The attached document contains the Grant Narrative of a previously funded grant application. It is not intended to serve as a model, but to give you a sense of how a successful application may be crafted. Be aware that minor changes may have been made to the plan of work and other portions of the proposed project in response to comments made during the review process. Every successful application is different, and each applicant is urged to prepare a proposal that reflects its unique project and aspirations.

Prospective applicants should consult the NHPRC's application guidelines at https://www.archives.gov/nhprc/apply for instructions. Applicants are also strongly encouraged to consult with the NHPRC staff member listed in the grant announcement well before a grant deadline. Prospective applicants are also strongly encouraged to submit a draft application by the deadline listed in the grant announcement.

The Commission welcomes collaborations that target institutional advancement for small and underserved local archives and repositories, **especially those with collections that focus on the voices and perspectives of Black, Indigenous, and People of Color.**

Project Title: Iyapi.org: Unlocking Dakota/Lakota Language Primary Source Materials

Institution: Standing Rock Sioux Tribe

Project Director: Elliot Bannister

Grant Program: Major Collaborative Archival Initiatives

iyapi.org: Unlocking Dakota/Lakota Primary Source Materials

1   Overview

Iyapi.org (*iyápi* is the Dakota/Lakota word for "language") is a project to revolutionize public discovery of video, audio and texts of great importance to the nation's history, culture and democracy. In partnership with six record-holding institutions, the Standing Rock Sioux Tribe Language and Culture Institute ("SRST LCI") is setting out to create an online platform where the public can engage and interact with these materials in the original Dakota /Lakota and in translation.

The Dakota/Lakota language is unique to this continent and, although it is critically endangered, it is gradually becoming the object of renewed passion among young Dakota/Lakota people. Its prospects for survival are due, in part, to its textual history, which includes written documents going back to the early 19th century. Since the 1950s video and audio in the language have also begun to emerge. As we continue to lose fluent speakers, who currently total no more than 2000, these records become an increasingly vital lifeline to the language in its purest natural form.

Despite their potential value both for indigenous people and others wishing to explore the American experience through a Native lens, such Dakota/Lakota-language primary sources are disparate and hard to access, and institutions that hold them often lack the linguistic expertise to catalog their content. The vast majority sits untranslated and under-described, locking in a wealth of unseen cultural, historical and traditional knowledge

Iyapi.org is a proposed online reading and listening platform that uses cutting edge software to navigate transcriptions and translations of primary sources that are linked, sentence-by-sentence, to a digital version of the original media. This new software will be available on an open-source basis to other endangered language communities looking to open up their records.

2   Description of Collections

Iyapi.org will bring together diverse materials that reside in a range of archives around the country but share a common medium in the Dakota/Lakota language. These consist of written documents (including manuscripts and typescripts of stories, treaties, autobiographies, ethnographies and newspaper articles), audio files (including radio broadcasts and song recordings) and video files (including interviews, presentations, monologs and discussions). These collections have been selected for the depth they add to discourse on the continent's history and culture, from which the very First Americans are often erased.

2.1   Documents

2.1.1   Joseph White Bull manuscript ("White Bull")

This manuscript was created in 1931 by the nephew of Chief Sitting Bull, Joseph White Bull. It is considered a foundational record of late pre-reservation and early reservation life, as well as a unique first-hand account of fighting General Custer at the Battle of Little Bighorn. The ledger measures 14.75 x 10.5 inches, and contains Lakota writings and/or pictographs on a total of 51 pages. Subjects include buffalo and bear hunts, horse-raiding exploits, and a winter count, or calendrical history. It has been fully digitized by the University of North Dakota, who also own the ledger, and have granted us full re-use and republication rights to the digital scans and extant metadata. Original transcription and translation will be conducted by SRST LCI.

2.1.2   Santee Normal Training School publications ("SNTS")

This collection contains two boxes of manuscripts, tracts and pamphlets, produced by the printing press of the SNTS, which was founded in 1870 for members of the Santee Sioux Tribe who had been exiled from Minnesota. Of great interest is the political material, including the following translations and original works by James W. Garvie, a fluent speaker: *Mdehanska Wookiye Kagapi* (Fort Laramie Treaty of 1868), *Paha Sapa Wookiye* (Act of February 28, 1877), *Dakota Makoce Kiyuspapi* (Act of March

2, 1889), *Ikcewicasta Woope Wicakicagapi* and *Ikcewicasta Wawoyuspa Toope* (two U.S. laws relating to Indians), U*nited States en Woicicage Woope Kin* (Constitution of the United States), and *Abraham Lincoln Toni Kin* (The Life of Abraham Lincoln). These treaties and laws, which determined the fate of the Dakota/Lakota people and their land, were originally written and signed in English, a language which most Indians of the time didn't speak or read fluently. These availability of these documents will greatly benefit communities and tribal members, legislative historians, lawyers, political scientists, and researchers of federal Indian treaty law. All titles went out of print in 1936 when the school closed down and today are in the public domain. History Nebraska has copies from early print runs and has agreed to digitize them professionally. Original transcription and back translation will be conducted by SRST LCI.

2.1.3   Ella Cara Deloria papers ("Deloria")

This is the life's work and correspondence of Ella Deloria, a pioneering anthropologist, linguist, and Lakota language speaker in the early 20th century. This collection includes many old stories and cultural teachings from the Standing Rock community, as well as critically edited copies of works by other great Dakota/Lakota writers of the preceding century, including George Bushotter, George Sword and the Pond brothers. The collection includes more than 400 separate items totalling around 6,000 pages of manuscript and typescript. The American Philosophical Society ("APS") owns the original documents, and is around 75% complete on an effort to repatriate digital scans, metadata and reuse rights to the Standing Rock Sioux Tribe, with completion expected within the next six months. Much of the material contains excellent interlinear English translations by Deloria herself; SRST LCI will transcribe these as well as the Lakota text into the contemporary orthography.

2.1.4   *Iapi Oaye* Newspaper Collection

This collection contains 623 monthly newspapers published out of Greenwood, SD, from 1871 through 1930. The newspapers, written in the Santee Dakota dialect, cover everything from

descriptions of significant current events during this 60 year span to recipes to obituaries to intimate letters to the editor detailing the joys and sorrows of home and community life of the time. This collection holds to language learners and residents of the Great Plains area interested in regional and even family history. The Minnesota Historical Society ("MNHS") in partnership with Minnesota Digital Library has digitized all 623 issues that are currently known, and treats the scans as part of the public domain. Automatic OCR transcriptions are available; SRST LCI will comb these for errors, transliterate to the contemporary orthography, and produce original translations.

2.2   Audio

2.2.1   James Emery Collection ("Emery")

This collection is comprised of audio recordings dating back to the early 1950s, made by James Emery, a fluent Lakota speaker. It comprises nearly 300 recordings (approximately 250 hours of running time) including a large amount of songs and music, in addition to other material, such as several recordings of Wasú Máza, then the last survivor of the Battle of Little Bighorn. It will be of huge use to music ethnographers and historians as well as traditional singers seeking to revive old powwow and ceremony songs. Black Hills State University owns the original reel-to-reel tapes, and digitized them to WAV format, copies of which they then gave, along with full re-usage and republishing rights, to four tribal institutions of which Sitting Bull College ("SBC") was one, who in turn shares resources with SRST LCI through a Memorandum of Understanding. None of the material has yet been transcribed or translated.

2.2.2   KILI Radio Lakota Language Shows ("KILI")

This collections includes recordings dating from 2009 to current, of the *Lakota Language Show* and the *Lakota Storytelling Hour* on KILI Radio, Porcupine, SD, hosted by Robert Two Crow and Bryan Charging Cloud. This archive, totally around 204 hours of audio, is important because KILI Radio is one of the only stations in the US to broadcast shows in a Native American language. The hosts and

their guests provide a living link to the vibrant Dakota/Lakota storytelling tradition. Transcripts and translations of these shows will make them available and useful to a wide array of interested public and academic parties. The best and only known recordings of these shows are in .mp3 format, which were recorded over an internet livestream by Ken Kalloch, a private individual; KILI Radio doesn't preserve recordings of its own shows. We have received permission from both Kalloch and Charging Cloud (the host) to reuse and republish the files. Recordings of shows prior to 2012 could benefit from noise removal and dynamic range compression in Audacity.

2.3 Video

2.3.1 Delores Taken Alive monologs ("Taken Alive")

Uŋčí Delores Taken Alive was born in 1933 near Little Oak Creek, in vicinity of present-day Little Eagle, SD on the Standing Rock Reservation, and is known anecdotally as the most eloquent speaker of the language alive today. This collection of 14 videos, each comprised of approximately 3 hours each, were recorded in a classroom between October 2017 and May 2018 before an audience of 8 local youth, Topics include gender role teachings passed down by her own grandparents, seasonal stories relating to Sitting Bull, and foods traditionally hunted along the Missouri. The videos are born digital as MP4 shot at 1080/60p. SBC, and by extension, and through its MOU, the SRST LCI, together with the people of Standing Rock, share full rights of use for this collection. Original transcription and translation will be conducted by SRST LCI.

2.3.2 2018 Dakota/Lakota Summer Institute presentations ("DLSI")

This is a series of ten videos recorded in June 2018 at an annual gathering of fluent Elders at Sitting Bull College. Speakers include Brian Charging Cloud, Marilyn Circle Eagle, Dewey Bad Warrior, Delores Taken Alive, Trevian Hairy Chin, and Mike Kills Pretty Enemy among others, representing regional Dakota/Lakota dialects from across the Great Plains. The presentation topics, which include horsemanship, bow-making, and changes in tribal kinship, provide insight into the worldview of

twenty-first century Elders who have witnessed the world change significantly from their home at Standing Rock. The collection is rich in wisdom, oral history and the unique idiom of Standing Rock and its value is truly inestimable to community members, language learners, historians, anthropologists, political scientists, and linguists. These videos are born digital as MP4 shot at 1080/60p, and the same access rights apply as the previous collection.

3   New Tools and Methods

These primary source materials will be made available through a website built using Omeka, a web publishing platform for sharing digital collections and creating media-rich online exhibits. Possible plugins are mentioned in Red throughout this document. Any new plug-ins or customizations will be made open source in the hope that other endangered language communities can use them for similar projects.

3.1   Universal Viewer

Please see the mock-ups in the Supplemental Materials to help you visualize these features. The customized Universal Viewer Omeka plugin allows users to explore and navigate digital access versions of every object. The item Title is always visible and users can choose to show or hide additional Item Metadata. The metadata values will be hyperlinked to a search page returning results for other items sharing that value. For example, if an item is listed as being created in 1937, clicking "1937" will display all other items created in that year. Alongside the object is (1) a text transcription (in the Standard D/Lakota Orthography, the spelling system used by contemporary learners of the language) of the language used in the item and (2) its English translation. The Transcription/Translation is displayed on a sentence-by-sentence basis. Each digital item type (document, audio or video) will interact in its own way with the Transcription/Translation, as described below.

3.1.1   Document Viewer

The document scan is displayed in the media viewer. A mouse-over displays icons to fit page width, fit

page height, zoom in, zoom out, print page, and jump to first, previous, next or last page. In a frame

below or to the side of the document scan is the Transcription/Translation. Both the document scan

and the Transcription/Translation can be navigated. Users can turn on or off the option that both

elements scroll in unison. The user can click on a span in the document scan to jump to the

corresponding section in the Transcription/Translation. Likewise, navigating to a particular sentence in

the Transcription/Translation will overlay a highlight of that sentence in the document scan. The

Neatline or Annotate Omeka plug-ins seem to provide the capacity for this feature, as demonstrated in

this scan of the Declaration of Independence: https://goo.gl/TkcdXC.

3.1.2   Audio and Video Viewers

A media player contains the audio file, preferably with a visualization of the waveform, or the video file.

The Transcription/Translation of the media is presented alongside it. As the media plays, the

Transcription/Translation scrolls to the current sentence. Users can turn on or off this auto-scroll.

Both the media and the Transcription/Translation can be navigated. Users can scrub to a certain point

in the media and the Transcription/Translation will jump to the corresponding sentence; likewise

selecting a sentence in the Transcription/Translation will play the media from that timestamp. The Oral

History Metadata Synchronizer Omeka plug-in could provide the basis for this feature, as demonstrated

by this bilingual transcript, which is synchronized with an audio file: https://goo.gl/RUY4rT. Some

customizations in terms of visual design and more precise timestamping would need to be made.

3.1.3   Transcription/Translation

Users can interact with individual sentences within the Transcription/Translation feature. They can be

bookmarked (and revisited later under My Account), shared to linked social media accounts, or

reported to administrators if errors are found within the language content. The user can also hide the

English translation to challenge their own language learning, and adjust the font size. Users can double click any word in the transcription line to display a popup with the word's meaning in context. This feature will help language learners understand exact usage of individual words, which is sometimes not clear in sentence-level translations. A play button (distinct from the media player) also appears alongside each sentence. This plays the media for that sentence in isolation (and not the entire media file). Transcription/translation sentences attached to born-written items may also be associated with an audio file, in which a fluent speaker is recorded reading the document.

3.2   Discovery of Content

The top-level navigation of the website allows the user to discover new materials in different ways:

- **Discover:** These pages provide space for admin-curated exhibitions of individual items that are united by a common theme. For example, a special exhibition on moccasin making might draw together Ella Deloria's legend of Turtle Moccasin boy (a document), George Bushotter's description of the moccasin-hitting game (a document) and Karen White Butterfly's description of how to make moccasins (a video), together with a narrative text that contextualizes the items. New exhibitions can be added by admins on a seasonal basis. Exhibit Builder seems to be the appropriate Omeka plug-in for this feature.

- **Search items:** the advanced search page will give users the option to search items by any of their metadata, such as item type, speaker name, scribe name, gender of the author, subject keywords, item name, and dialect that the item features. The user can also search using ranges, such as videos recorded between 1970 and 1990, or documents between 1 and 4 pages long. Items that have Linguistic Metadata are even more searchable. For example, a search for nuŋwáŋ ("to swim") will return documents, audio and video whose transcriptions contain that word, or conjugations of it. Search results will lead to the Object Viewer.

- **Browse collections**: users can see items grouped according to which real-life collection they originate from, for example the Ella Deloria document collection (housed at the American Philosophical Society in Philadelphia, PA) or the James Emery audio collection (housed at Oglala Lakota College in Kyle, SD).

- **People:** A space to present biographies of people listed in the item metadata, including the authors and scribes of documents, and the interviewers and subjects of audio and video content.

- **About:** Background narrative on the project, including acknowledgements, copyright information, and a donation button.

- **My account:** Logged in users can view and remove their Bookmarked Sentences, Saved Items, Contributed Items, comments, linked social media accounts, as well as adjust their preferences for the Object Viewer.

It is essential that the website layout and associated media players are responsive, as it will be accessed from a range of different devices including cell phones, which are our primary audience's main means of internet access.

4   Archival Methodologies

4.1   Digitization

The SNTS and Deloria collections will continue to be digitized by and at their respective institutions, and the remaining collections are either born-digital or have already been digitized. We have been granted permission to use UND digitization facilities, including their Indus Book Scanner 9000, should the need arise.

4.2   Metadata

Each resource will be associated with two sets of metadata: Item Metadata, which describe the object as a unit; and Linguistic Metadata, which provide a sentence-by-sentence transcription and translation of

the language featured within that resource. The advantages of such extensive metadata, and the innovative ways in which users access it, are described in the previous section.

In order to make processing the material more manageable, it will be divided into two batches. Work with either of these two batches will be interspersed with work on the software innovations (see "New Tools and Methods"). This approach ensures that the need to publish the material does not take priority over the need to develop new software, and vice versa. Each tool and feature on the website will be tested with a small set of prototypes, representing one item from each of the three media types: document, audio and video.

4.2.1   Item Metadata

Metadata for each digital object will be formatted according to the Dublin Core Metadata Initiative, as this is a widely adopted standard that provides enough flexibility to cater for a diverse range of object types. Omeka uses Dublin Core as its default metadata standard, with additional elements beyond the 15 basic ones also available. Additional elements such as *Alternative Title* will help us catalogue objects in both English and Dakota/Lakota.
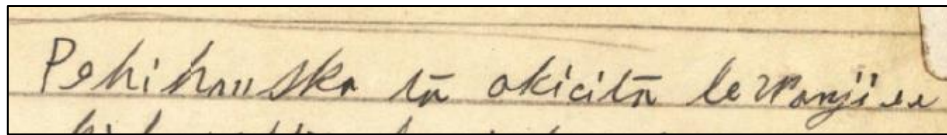
	Example 1	Example 2
Title	Wookiye Kagapi Kin. Mdehanska	Lakota Story Hour
Subject	treaties; government relations; Indian reservations; Black Hills	Little Bighorn; language revitalization; Standing Rock
Description	An early Dakota translation of the Fort Laramie Treaty, in which the U.S. agreed the Sioux held sovereign rights to the Black Hills.	The speakers discuss the Battle of Little Bighorn as a turning point in history, and then debate the obstacles to Lakota language survival.
Creator	Garvie, James W.	KILI Radio
Source	OCLC 42344568	kalloch.org/KILI
Publisher	Santee Normal Training School Press	
Date	1902	2010-06-23
Contributor	Tibbitts, Arthur T.	Charging Cloud, Bryan; Ghost, Dennis
Rights	Public domain	Copyright KILI Radio

Relation	IsFormatOf Treaty of Fort Laramie (1868)	
Format	image/jpg 3.4 mB	audio/mp3 19.3 mB
Language	Santee Dakota	Lakota, English
Type	document	audio
Identifier	hdl.handle.net/2027/njp.32101074870724	
Coverage		

Fig 1: object metadata for a scan of a Dakota language treaty and a Lakota language radio broadcast

4.2.2   Linguistic Metadata

Items will be both transcribed and translated, to make them accessible to audiences both with and without a knowledge of the Dakota/Lakota language. However, historical Dakota/Lakota documents are written in a diverse range of orthographies, and must be further transliterated into the Standard D/Lakota Orthography to be of any pedagogical use to most contemporary learners. As such the Linguistic Metadata accompanying each object is multi-layered and arranged in a number of fields, each marked by a standard "backslash code" (as used in text corpus software developed by the Summer Institute of Linguistics).

\s	JWB-020-002		= sentence ID
\m	00:20:41,150 --> 00:20:45,109		= media file timestamp
\h	Pehi Hanska ta akicita le wanji ee		= exact transcription
\t	Pȟehíŋ Háŋska tȟa-ákičhita lé waŋží ée		= updated orthography
\d	pȟehíŋ háŋskA tȟá- akíčhita lé waŋží ée		= lemma of each word in **\t**
\g	hair / long / his soldier / this / one of them / it is him		= gloss of each word in **\t**
\f	This was one of Custer's soldiers.		= free translation
\n	Jessica Fox		= internal notes

Fig 2: Linguistic Metadata from a sentence in one of Joseph White Bull's manuscripts about fighting General Custer

\s is a unique ID that references each <u>s</u>entence dataset, in this case sentence 2 of plate 20 in the Joseph White Bull manuscript. **\m** details the start and end of the sentence in the associated audio file (<u>m</u>edia), following the timecode format for SubRip subtitles. **\h** is an exact transcription of the source text, in the <u>h</u>istorical orthography and is intended to improve searchability of documents (born-audio and video transcriptions don't need an **\h** field). For example, a user searching *wanji* will be returned this sentence even though *waŋží* is the spelling displayed in the user-end Transcription/Translation feature, which draws from the **\t** field (the <u>t</u>ext, rewritten in the Standard D/Lakota Orthography used by contemporary learners). **\d** is the lemma ("unconjugated" or "<u>d</u>ictionary form") of each word in **\t** and also exists to boost searchability; a user searching *akíčhita* will be returned this sentence because the lemma line includes that word, even though *tȟa-ákičhita* (with a prefix and stressed *a*) is the form that surfaces in the text. **\g** is a contextual <u>g</u>loss of each word, and provides the data for the meaning-checker popup described above. **\f** is the <u>f</u>ree translation of the whole sentence and this is the translation displayed at the user end. **\n** can be used for keeping internal <u>n</u>otes related to that sentence; in this case, the name of the editor who transcribed/translated this sentence.

4.2.3   Inputting Metadata

Item Metadata will be inputted via the Add an Item feature at the backend of Omeka; it can also be prepared offline and imported in bulk using the CSV Import plug-in. As for the Linguistic Metadata, it will be inputted at the back-end by means of the Scripto Omeka plug-in, a tool for collaborative transcription whereby logged-in editors can view the media, type transcriptions, and discuss progress with other users before it is published to the front-end. This open-source tool will be customized incorporate the other layers of transcription (e.g. updated orthography, free translation).

4.2.4   Plotting Annotations on Media Files

A Draw Polygon tool could be used for labelling where sentences start and end in a manuscript scan. Each of these polygon records will need to be linked to the corresponding Sentence ID in the

Linguistic Metadata (e.g. JWB-020-002 above). A <u>Neatline</u> or <u>Annotate</u> customization that uses optical character recognition to detect lines of handwritten or typewritten text in a document scan would potentially make this process more efficient. Likewise at the back-end of the OHMS (or alternative Omeka plug-in), the media files (audio and video) will need to be annotated to indicate the start and end of each sentence, and these spans will need to be linked to their corresponding Sentence ID in the Linguistic Metadata.

4.3 Formatting and Preservation

Copies of the collections will be donated by partner institutions in the highest quality format available. Those host institutions will continue to be responsible for the original preservation files in line with their long-term conservation plans. This also applies to forthcoming digitization planned by APS (remainder of Deloria) and History Nebraska (remainder of SNTS). Standardized access files will be created from the donated resources and saved as JPEG (document scans), MP3 at 128kbps (audio files) or H.264 MPEG-4 AVC (video files). Access files, together with the metadata files, will be stored primarily on tribal servers. Back-up copies will be stored on an Amazon web server courtesy of UND as well as on hard drives in their fireproof safe.

5 Public Participation

As well as being an important hub for Dakota/Lakota people to explore their own language and culture, iyapi.org will serve as an important bridge for non-Native people to understand American democracy and culture from a perspective that has often been ignored or marginalized in mainstream histories.

5.1 Local Community Engagement

At the outset of the project, SRST LCI will conduct a public consultation meeting at Sitting Bull College, the State Historical Society of North Dakota, and the South Dakota State Historical Society to

foster community buy-in and make any adjustments to the priority order we have given to the materials. It should be noted that the contracting Language Editors locally to do the transcription and translation is a form of community engagement: they will be the first of their generation to see many of these materials, and the conversations that their work will inspire with Elders, or the new cultural understandings they may find within its content, will signal a new lease of life for these items.

5.2 Beta Testing

In Year 3, SRST LCI will deliver practical workshops that teach the public what collections are available through iyapi.org, how to search (using English search terms or searching for specific Dakota/Lakota word usage), how to navigate and listen to a resource, and how to interact with it. These workshops will take place across the Great Plains: (1) Sitting Bull College, Fort Yates, ND, our tribal college; (2) Standing Rock Education Consortium Professional Development Day, which annually attracts over 400 teachers from all private, public, tribal and grant schools across Standing Rock Reservation and from neighboring cities); (3) Tusweca Tiyospaye, the world's largest Dakota/Lakota language conference, held annually in Rapid City, SD; (4) Oglala Lakota College, a tribal college in Pine Ridge, SD; (5) Thunder Valley, a community development corporation in Pine Ridge, SD with a very strong program for adult learners of Lakota; (6) Sinte Gleska, a tribal college in Rosebud, SD; (7) University of North Dakota in Grand Forks, ND, the partner providing the White Bull manuscript; (8) Minnesota State Historical Society in St. Paul, MN, the partner providing *Iapi Oaye* scans; (9) History Nebraska in Lincoln, NE, the partner providing the SNTS scans; (10) American Philosophical Society in Philadelphia, PA, the partner providing the Deloria scans. Guests will be invited to explore a beta version of the website and complete a user feedback survey.

5.3 Community Features of the Website

The website will have user comment and discussion features to encourage real life community interaction with the materials. The comments tool, based on the [Disqus Engage](#) Omeka plug-in, will

allow threaded replies, @mentioning other users in the discussion, cross-referencing sentences in the item's Transcription/Translation, and cross-referencing other items across the website. Furthermore, the Collecting Omeka plug-in allows users to submit their own documents, audio and video content, to be added to the collections by administrators, thereby ensuring that iyapi.org remains a living and growing corpus of Dakota/Lakota language material.

6   Project Products

1758   Catalog records: the total number of individual document, audio and video items from across the collections.

548   Document pages transcribed and translated: 10% of the approximately 5475 pages that that comprise the 1094 document items that have been selected

43   Hours of audio transcribed and translated: 10% of the approximately 431 hours of audio that comprise the KILI Radio and Emery collections

7   Hours of video transcribed and translated: 10% of the approximately 72 hours of video that comprise the Taken Alive and DLSI oral history collections

7   Existing plugins that are needed to power the functionality of iyapi.org, namely: CSV Import, Solr, Universal Viewer, IIIF Server and Search, Scripto, Annotate, Collecting

2   Plugins that need to be customized to power iyapi.org, and will be shared open source, namely: Oral History Metadata Synchronizer and Optical Character Recognition.

7   Project Publicity

It is important for us that other communities, especially endangered language communities, can benefit from our privilege of being able to build this platform, just as many indigenous communities have modeled their K-12 language curricula on our *Lakhótiya Wóglaka Po!* Textbook series. The code for all new software, including Omeka plugins, will be made open-source and shared on Github so that anyone can replicate or adopt our model. Likewise our transcriptions and translations will be published under a CC BY-ND-NC 4.0 license. The Society of American Archivists in August of Year 2 and at the

Association of Tribal Libraries, Archives and Museums in October of Year 3 will provide further opportunities to share our progress.

Our social media channels will be a primary channel for community publicizing developments in website features and availability of collections. Our posts often have an organic reach of up to 20,000 Facebook users, and these in combination with occasional paid ads will foster user interaction with iyapi.org. User accounts on iyapi.org can also be linked with existing accounts (Facebook, Twitter, Google) to facilitate sharing of sentences and items onto social media timelines.

8   Plan of Work

The following is a summary of the work to be conducted in each year. A detailed time chart that identifies the personnel required for each activity is attached in the Supplemental Materials.

- **Year 1: Initial Build and Core Cataloguing. —** Conduct community consultation. — Contract Language Editors and Cultural Experts. — Contract web developer, install Omeka and customize necessary plugins. — Create access files and upload to back-end. — Receive Metadata training and prepare Item Metadata. — Begin recording audio narration of documents.

- **Year 2: Integrate Transcription and Translation Metadata. —** Language Editors undergo Linguistic Metadata training. — Build Linguistic Metadata for first batch of items. — Correlate Linguistic Metadata to points annotated on media files. — Present progress at SAA conference.

- **Year 3: Deliver to Community. —** Assemble thematic online exhibitions of selected items. — Launch publicity campaign. — Present community workshops on website usage. — Beta test website. — Fix according to feedback. — Present progress at ATALM conference.

9   Staff Qualifications

9.1   Project Staff

Sunshine Carlow (Director, SRST Language and Culture Institute) will spend 20% of her time on the project as Project Director. She will provide general oversight to the project, ensuring activities are completed on time and completing all budgeting and reporting. She is the Founding Director of SRST LCI and her salary is otherwise covered under a US DOE NYCP grant. scarlow@standingrock.org, 701-854-8583

Elliot Bannister (Language Specialist, SRST Language and Culture Institute): will spend 50% of their time in Year 1, and 75% in Years 2 and 100% in Year 3 on the project. Elliot will be responsible for delegating and monitoring the progress of the metadata, transcriptions, translations and audio narrations. They will work closely with the web developer and serve as the primary administrator of the website. Elliot is a certified Dakota/Lakota teacher and has taught at Sitting Bull College since 2016. They have an extensive knowledge of extant authentic materials and recordings in the language, and their experience with both text corpus software and web planning and development equips them well for this project. ebannister@standingrock.org, 701-854-8587

Nacole Walker (Tribal Linguist, SRST Language and Culture Institute) will spend 25% on the project 10 10. Her duties entail transcribing historic Dakota/Lakota texts into the contemporary orthography, producing high quality translations, monitoring and proofreading the language metadata, and providing guidance to Language Editors performing similar tasks. Nacole earned a Bachelor's Degree in Linguistics from Dartmouth College and is currently finishing a Master's Degree in Curriculum, Assessment and Instruction. She plays an invaluable role in the language revitalization movement at Standing Rock where she has served as the Director of the immersion school, taught classes at Sitting Bull College, developed and standardized curriculum and assessments, and narrated Lakota for various multimedia projects. nacole.walker@sittingbull.edu, 701-202-4756

Sven Schreiber (Director of Information Technology, SRST) will spend 10% of his time on the project. He manages all IT functions across 48 tribal departments, including hardware, software and server platforms. He is certified in SQL and has extensive experience in Visual Basic/C++. His contributions to the project include setting up the LAMP server, unpacking Omeka, assisting with database export and bulk conversion of files, and advising on website design and development. sscrhreiber@standingrock.org, 701-854-8550

Shauna Elk (Office Manager (.5FTE), Language and Culture Institute) will spend 50% of her time on the project. Duties include maintaining office systems and procedures, monitoring supplies, submitting purchase orders, overseeing correspondence and conducting social media publicity. language@standingrock.org, 701-854-8583

9.2   Contractors

Language Editors (see job description in Supplemental Materials) have an intimate understanding of the vocabulary, grammar and structure of the Dakota/Lakota language, and have experience in producing exact transliterations of texts across varying orthographies, as well as close translations of texts into English. Individuals who have expressed interest in being contracted for this work include:

- **Armik Mirzayan** is an Assistant Professor of Modern Languages and Linguistics at University of South Dakota, where he teaches Lakota. He earned his PhD in Linguistics from the University of Colorado at Boulder in 2010.

- **George Gourd Mackin** earned his degree in Native American Studies from Dartmouth College and is a recent graduate of Ȟpečášni Uŋspéič'ičhiyapi, where he translated various ethnographies written in Lakota over a century ago by George Bushotter.

- **Althea Fox** is an instructor at Lakȟól'iyapi Wahóȟpi, one of only two 100% Lakota language immersion schools in the world. She is a graduate of Ȟpečášni Uŋspéič'ičhiyapi where she translated the letters of Chief Nicholas Black Elk and is pursuing a degree in Civil Engineering.

- **Denny Gayton** earned his degree in Archeology and teaches Lakota language at Sitting Bull College Standing Rock High School. He has authored books on advanced Lakota grammar.

Cultural Experts are respected traditional knowledge keepers and some of the last first-language speakers of Dakota/Lakota. They will dictate rapid translations of items, assisted technologically by Language Editors, as well as verify all translations, and narrate the written documents to be recorded by Audio Technicians. Individuals include:

- **Lalá Tom Red Bird** grew up speaking Lakota on the Cheyenne River Reservation, immediately south of Standing Rock. He is a Lakota language immersion school instructor for ages 3-5.
- **Uŋčí Ruby Shoestring** was born in 1945 and grew up in Bullhead, SD on the Standing Rock Reservation. She continues to maintain a fluent Lakota household, and serves as a Mentor in our Mentor-Apprentice language learning program at Sitting Bull College.
- **Uŋčí Grace Draskovic** was born in 1945 and grew up next door to Uŋčí Ruby in Bullhead. She works as a Lakota language immersion school instructor for ages 3-5.

Audio Technicians will operate in-house recording equipment such Blue Yeti USB microphones, record Cultural Experts reading the documents aloud to produce sentence-by-sentence audio narration of available in the texts in the Document Viewer. Individuals may include:

- **Ray Taken Alive** is a recent graduate of Ȟpečášni Uŋspéič'ičhiyapi, an intensive 640-hour advanced language course at Sitting Bull College, and has worked as the Social Media Coordinator for SRST LCI.
- **Alex Firethunder** is a Lakota Language Archives Media Consultant for Oglala Lakota College, a tribal college in Pine Ridge, SD, where he is also completing a Masters in Lakota Leadership and Management.

The **web developer** is an individual or an agency that has good experience in building digital humanities platforms using Omeka S and/or Classic, and customizing Omeka plugins. A quote from Agile Humanities, a digital humanities agency based in Canada, is attached to this application.

9.3   Advisors

The Chester Fritz Library at the University of North Dakota, the largest research library in the state, holding over 1.6 million volumes, are willing to provide expertise, advice and training from **Stephanie Walker**, Dean of Libraries & Information Resources; **Shelby Harken**, Head of Technical Services; **Curt Hanson**, Head of Archives & Special Collections; **Will Martin**, Head of Digital Initiatives, Systems and Services; and **Zeineb Yousif**, Digital Initiatives Librarian and manager of UND's Scholarly Commons institutional repository.

10   Performance Objectives:

As we submit interim and final reports, we will be measuring our progress against these performance objectives:

1. All items from all collections will be searchable by Dublin Core metadata by the end of Year 1

2. We will have customized three open source Omeka plugins by the end of Year 1: Scripto (for inputting Linguistic Metadata), Neatline and OHMS (for annotating media files and synchronizing them to specific sentences in the Linguistic Metadata).

3. We will make over 1000 different documents available by the end of Year 2

4. We will make over 600 hours of audio and around 60 hours of oral history video available by the end of year 2

5. We will have at least 10% of items fully transcribed and translated by the end of Year 3

6. We will deliver ten public workshops across Dakota/Lakota Country during Year 3

7. The Language Specialist will attend at least two national conferences to present the model.