

The Dynamic Language Infrastructure/Documenting Endangered Languages Joint Funding Program

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About this webinar series

Email inquiries to:

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- Funded by National Science Foundation grant BCS-2039991 “Strengthening Capacity in Dynamic Language Infrastructure for Tribal Nations”
- Thanks to the project’s Advisory Committee, which has provided advice and insight in developing this programming.

**Expected Outcome of the
Webinar Series and other Grant
Activities**

“the project is such that it will lead to the **creation of proposals focused on questions largely shaped by Native Americans**. The insights of such PIs about their languages and cultures are likely to lead them to **focus on important research on topics that have been neglected by outside scholars** and, thereby, **expand the range of scientific advances** that can be supported by research on Native American languages. This will **allow Native American theories of language to inform linguistic theory** in much the same way that data from Native American languages has, which has transformative potential for the study of language.”

Overview

Topics Covered Today

- Introduction to the National Science Foundation (NSF) and its partnership with the National Endowment for the Humanities
- Overview of the different funding possibilities for DLI-DEL:
 - Eligibility
 - Deadlines
- Understanding the revised DLI-DEL funding call in more detail
- Planning activities and prompts, if you are considering a submission

Key Acronyms

NSF: National Science Foundation

NEH: National Endowment for the Humanities

DLI-DEL: the Dynamic Language Infrastructure-Documenting Endangered Languages funding partnership

PAPPG: NSF's Proposal & Award Policies & Procedures Guide (said: Pap-Gee)

DMP: Data Management Plan

TCUP: NSF's Tribal Colleges & Universities Program (said: Tea-Cup)

NSF, NEH and the DLI-DEL Collaboration

NSF-NEH Funding Partnership

- This joint funding partnership began in 2005.
- Both agencies fund projects that fit their particular missions.
- The program is described in a *solicitation*
- The focus today and for this webinar series is the current solicitation, NSF 20-603
 - <https://www.nsf.gov/pubs/2020/nsf20603/nsf20603.htm>



What kinds of grants exist in this program?

- **Fellowships** -- submitted by an individual to work on a project full-time for a total of 6 - 12 months
- **Dissertation grants** -- submitted by a doctoral-granting institution on behalf of a doctoral student's advisor and the student
- **Senior research proposals** -- submitted by an **eligible organization** to work on a project with a team for anywhere from 1 - 3 years
- **Conferences** -- submitted by an eligible organization to hold a workshop like training for the community, or building capacity in a relevant area

Summary of Eligible PIs by Grant Type

- **Fellowships** -- submitted by an **individual** to work on a project full-time for a total of 6 - 12 months
- **Senior research proposals** -- submitted by an **eligible organization** to work on a project with a team for anywhere from 1 - 3 years
- **Conferences** -- submitted by an **eligible organization** to hold a workshop like training for the community, or building capacity in a relevant area
- **Dissertation grants** -- submitted by a **doctoral-granting institution** on behalf of a doctoral student's advisor and the student

Fellowships

- The National Endowment for the Humanities manages the fellowship submission and review process.
- Solicitation is here:
<https://www.neh.gov/program/dli-del-fellows>
- The link also has a webinar, and all relevant information for the fellowship application.
- Fellowship highlights:
 - Made to individuals
 - Has a citizenship/residency requirement
 - Ineligible if enrolled in a degree program, unless all requirements have been met.



Dissertation Grants

- The Dynamic Language Infrastructure-Doctoral Dissertation Research Improvement Grants (DLI-DDRI) Program
- Can be submitted anytime
- Solicitation 19-607
 - <https://www.nsf.gov/pubs/2019/nsf19607/nsf19607.htm>
- Dissertation student is the CoPI, Advisor is the PI
- Funds expenses of the dissertation, but is not a stipend for the student



DLI-DEL Joint Solicitation 20-603

NSF-NEH Funding Partnership

- The current solicitation, NSF 20-603, covers senior research proposals and conferences.
 - <https://www.nsf.gov/pubs/2020/nsf20603/nsf20603.htm>
- Two deadlines a year:
 - November 18 (usually September 15, back to that date in 2021)
 - February 15, 2021





NSF in a Nutshell

- Independent federal agency created by Congress in 1950 "to promote the progress of science; to advance the national health, prosperity, and welfare; to secure the national defense..."
- Annual budget ~ \$7.0 billion
- ~11,000 new awards yearly, average duration of three years



NATIONAL
ENDOWMENT
FOR THE
HUMANITIES

NEH in a Nutshell

- Independent federal agency created by Congress in 1965 for “the study and interpretation of the following: language, both modern and classical; linguistics; literature; history; jurisprudence; philosophy; archaeology; comparative religion; ethics; the history, criticism and theory of the arts; those aspects of the social sciences which have humanistic content and employ humanistic methods; and the study and application of the humanities to the human environment with particular attention to reflecting our diverse heritage, traditions, and history and to the relevance of the humanities to the current conditions of national life.”
 - One of the largest funders of the humanities in the U.S.
 - Annual budget ~ \$155 million
 - In 2019, NEH awarded \$126 million to more than 1,000 projects.

Be Attentive to the Agency Mission

- NEH and NSF have distinct missions: humanities versus science.
- Although the review process is managed by NSF, the key stakeholders in each agency look for matches to their own mission.
- NSF has 4 distinct stakeholder programs:
 - **Linguistics Program** (in the Social, Behavioral and Economic Sciences Directorate)
 - **Arctic Social Sciences Program** (in the Geosciences Directorate)
 - **Tribal Colleges and Universities Program** (in the Education and Human Resources Directorate)
 - **Robust Intelligence** (in the Computer and Information Science and Engineering Directorate).
- NEH has **Preservation and Access** as the stakeholder in the joint solicitation.
- NSF funds workshops; NEH does not.

What Does DEL Fund?

From the solicitation: “this effort aims to exploit advances in human-language technology to build **computational infrastructure** for endangered language research. The program supports projects that contribute to **data management and archiving**, and to the **development of the next generation of researchers**. Funding can support fieldwork and other activities relevant to the **digital recording, documentation and analysis**, and **archiving** of endangered language data, including the preparation of **lexicons, grammars, text samples, and databases**.”

Eligible Institutions

- **Institutions of Higher Education (IHEs)** - Two- and four-year IHEs (including community colleges) accredited in, and having a campus located in the US, acting on behalf of their faculty members. Special Instructions for International Branch Campuses of US IHEs: If the proposal includes funding to be provided to an international branch campus of a US institution of higher education (including through use of subawards and consultant arrangements), the proposer must explain the benefit(s) to the project of performance at the international branch campus, and justify why the project activities cannot be performed at the US campus.
- **Non-profit, non-academic organizations**: Independent museums, observatories, research labs, professional societies and similar organizations in the U.S. associated with educational or research activities.
- **Tribal organizations** and other American Indian, Alaska Native, and Native Hawaiian serving organizations.

Ineligible Institutions

For-profit organizations are not eligible to apply to this program. *However*, personnel in for-profit organizations may participate as co-investigators.

Note: Institutions can determine who is eligible to be a Principal Investigator (PI) on a submission.



Eligible Activities and Outcomes for the Solicitation

Language Documentation

“...**a language documentation**...aims at the record of the LINGUISTIC PRACTICES AND TRADITIONS OF A SPEECH COMMUNITY....[and] may include a description of the language system...”

[p, 166, "Documentary and descriptive linguistics", Himmelmann (1998). *Linguistics* 36. pp. 161-195. de Gruyter]

Emphasis Areas in the DLI-DEL Solicitation

- Language Description
- Infrastructure
- Computational Methods

The first two tracks are likely (but not necessarily) the most relevant ones for the current webinar series.

Language Description

“To conduct **fieldwork to record in digital audio and video** format one or more endangered languages; to carry out the early stages of **language documentation including transcription and annotation**; to carry out later stages of documentation including the **preparation of lexicons, grammars, text samples, and databases**; to conduct **initial analysis of findings in the light of current linguistic theory.**”

Infrastructure

“To **digitize and otherwise preserve and provide wider access** to such documentary materials, **including previously collected materials** and those concerned with languages which have recently lost all fluent speakers and are related to currently endangered languages; to **create other infrastructures, including conferences** to make the problem of endangered languages more widely understood and more effectively addressed.”

Computational Methods

“To further **develop standards and databases** to make this documentation of a certain language or languages widely available in **consistent, archivable, interoperable, and Web-based formats**; to develop **computational tools (taggers, parsers, speech recognizers, grammar inducers, etc.) for endangered languages**, which present a particular challenge for those using statistical and machine learning, especially deep learning methods, since such languages do not have the large corpora for training and testing the models used to develop those tools; and to **develop new approaches to building computational tools** for endangered languages, which make use of deeper knowledge of linguistics, including language typology and families, and which require collaboration among theoretical and field linguists, and computational linguists, and computer scientists and engineers.”

Additional Considerations

- “DLI–DEL encourages **collaboration** across academic disciplines and /or communities...pair linguists with computer scientists, geographers, anthropologists, educators, and others as appropriate.”
- “Examples of community collaborations might include **scholars working in well-defined partnerships with native speaker communities**.
- “DLI–DEL also encourages investigators to include in their project's **innovative plans for training native speakers in descriptive linguistics** and new technologies which support the documentation of endangered languages.”
- “DLI–DEL gives **high priority to projects that involve actual recording in digital audio and video** format endangered languages” while still possible.

Possible Projects

- Audio and video recording of fluent speakers, especially of specialized uses or knowledge
- Transcribing and annotating recordings
- Digitization projects of existing materials that are not digital
- Developing wider access to previously collected documentary materials
- Conferences



Sample Projects

DLI-DEL Awards for FY 2020

“Enhancing linguistic infrastructure through the documentation of conversational expression of an endangered language”



- BCS-1953793
https://www.nsf.gov/awardsearch/showAward?AWD_ID=1953793&HistoricalAwards=false
- PIs: Mason Auger, Marianne Ignace
- Organization: Sealaska Heritage Institute

Abstract: While Haida grammars and dictionaries exist, most sources do not document language use in conversational daily life, and none provide audio-visual documentation. This project documents Alaskan and Canadian elders conversing in this endangered language. Recorded conversation will demonstrate how speakers express politeness, objection or agreement; describe daily life; and relate events from the past.

Conversation will be elicited using guided conversation; nonverbal stimuli such as photos and images; and task-oriented activities. These recordings, along with twenty hours of archival audio, will be translated, transcribed, annotated, and archived for public use in both Alaska and Canada. This new resource on the Northern Haida language will make invaluable cultural, historical, and linguistic data available to the community, language learners, and researchers. Documentation of this language will also provide a permanent record and linguistic infrastructure of a language in imminent danger of extinction and will broaden and enrich resources for comparative linguistic study.

“APS Indigenous Language Manuscript Interface”



- BCS-1953228
https://www.nsf.gov/awardsearch/showAward?AWD_ID=1953228&HistoricalAwards=false
- PI: Brian Carpenter
- Organization: American Philosophical Society

Abstract. The rich record of stories, vocabularies, and analyses of Indigenous languages found in archival manuscript collections are critical language infrastructure to advance linguists' understanding of these languages and Indigenous communities' goals of cultivating new generations of speakers of Native languages. Yet even when archives digitize these manuscripts, they face new challenges as they look to make the information within these under-utilized documents easier to examine and use in a digital setting for multiple audiences. The Indigenous Language Manuscript Interface (ILMI) project will contribute new solutions to this widespread issue in linguistics and archiving through a collaboration between the oldest language archive in the United States, the American Philosophical Society (APS), and the Language and Cultural Revitalization Program of the Tunica-Biloxi Tribe of Louisiana (TBT). The ILMI project will create a new open-source platform that can be hosted by archives themselves, allowing researchers to navigate and view digitized original pages of manuscripts in endangered languages alongside data of the original text and data added by linguists and community language experts.

“Language Learning in Native American Revitalization Programs (LLiNARP)”



- BCS-2037209
https://www.nsf.gov/awardsearch/showAward?AWD_ID=2037209&HistoricalAwards=false
- PIs: Douglas Whalen, Jo Margaret Mainor, Porter Swentzell
- Organization: Endangered Language Fund

Abstract. This workshop will bring together experts working to define new research topics of particular relevance to Native American social scientists. Language is a critical component of human societies, and so it has an important place in the social sciences. For Native Americans, this emphasis on language has led to an upsurge in revitalization programs. Language Learning in Native American Revitalization Programs (LLiNARP) addresses the current low percentage of underrepresented minorities in social science research. The many language revitalization programs developed by Native American communities have opened a new area of research in language acquisition and linguistic theory. These programs are of high relevance to Native Americans, and this workshop will help promote the work of active Native American social scientists and bring new researchers into collaborations and projects that have yet to materialize. The aims of the workshop are to define new research topics within linguistics that will involve Native American researchers, to explore the ways in which language acquisition in revitalization programs differs from other situations, and to engage federal and private funders in a discussion of how these new topics will fulfill their missions. The broader impacts will include enhanced tools and theories for documenting and reviving languages; revitalization often depends heavily on previous documentation, and its use is more effective when its assumptions and implications are better understood. Revitalization programs have positive health benefits for the communities involved, and better guidelines for creating successful programs should lead to further benefits.

“Strengthening Capacity in Dynamic Language Infrastructure for Tribal Nations”



- BCS-2039991
https://www.nsf.gov/awardsearch/showAward?AWD_ID=2039991&HistoricalAwards=false
- PI: Colleen Fitzgerald
- Organization: Texas A&M University-Corpus Christi

Abstract. One important dimension of carrying out scientific investigation is having the resources (such as personnel, buildings, or equipment) needed to carry out these activities, that is, infrastructure. Diversity of scientific investigators is another important dimension. As scientists have included women or people of color, different research questions, assumptions or epistemological frameworks increased fundamental knowledge about a host of fields, ranging from biology to medicine to engineering. This award will enable a conference, and associated meetings, to provide training opportunities and establish partnerships between members of Native American groups and linguists with grant experience in order to help increase submissions and successful awards in the language sciences for projects led by Native American principal investigators, especially those based at Native American institutions. In doing so, it will strengthen capacity in language infrastructure for tribal nations, as well as diversify the pool of investigators (and the research questions and epistemologies) to advance fundamental knowledge in the language sciences. Project activities will broaden participation of Native Americans in linguistics, as well as build economic and scientific opportunities for Native Americans.

“Planning Grant: Tohono O'odham Language Center”



- BCS-1934445
https://www.nsf.gov/awardsearch/showAward?AWD_ID=1934445&HistoricalAwards=false
- PI: Paul Robertson
- Organization: Tohono O'odham Community College

Abstract. This project supports a one-year planning grant to develop a Language Center at Tohono O'odham Community College (TOCC) in Sells Arizona. This planning grant will provide a springboard toward a larger grant for an Enterprise Advancement Center (TEA), a program offered by the Tribal Colleges and University Partnership Program at the National Science Foundation. This center would serve the Tohono O'odham Nation as a clearing house for information about the Tohono O'odham language, an endangered Indigenous language spoken on both sides of the Arizona / Mexico border. The center will provide a support for teachers and students throughout the speaking community and a site for continued documentation and development of material resources for those seeking to teach or learn the language and / or for those with research interests related to the Tohono O'odham. Broader impacts also include the potential to enhance economic activity for a tribal nation, and to broaden participation for Native Americans, who are underrepresented in all the sciences, including linguistics. When completed, the Tohono O'odham Language Center will provide a hub for all intellectual activity related to addressing the endangered status of the Tohono O'odham language. This includes building the capacity of students at TOCC and language workers throughout the community through training in language recording, language data management, language archiving, and in language-processing technology appropriate for community use in both language documentation and language teaching. There is also intellectual merit in the securing of appropriate academic resources and archival materials needed to support these activities. A center of this type will have language and language-related activities at its core, but will also be a center for community networking and media outreach.

“Mississippi Choctaw Dictionary and Comparison of Community Dialects”

- Award # PD-271355-20
- PI: De Laura Saunders
- Organization: Mississippi Band of Choctaw Indians



No abstract.

“Language Documentation, Description, and Maintenance Activities for Sugpiaq (ISO 639-3) in Nanwalek”

- Award # PD-266988-19
- PI: Anna Berge
- Organization: University of Alaska (Fairbanks)



Abstract. Documentation and description of Sugpiaq, a highly endangered Yupik language spoken on the Alaska Peninsula, Kodiak Island, and the Kenai Peninsula. The project would result in documentation of the language and would include collaboration with local teachers in the creation of language-learning materials. Sugpiaq (*ems*) is a highly endangered Yupik language (of the Eskimo-Aleut language family) traditionally spoken on the Alaska Peninsula, Kodiak Island, and on the Kenai Peninsula in the lower Cook Inlet region. It consists of several distinct dialects, including Alaska Peninsula Alutiiq, Kodiak Alutiik, Kenai Sugpiaq, and Chugach. While documentation of its closest relative -- Central Alaskan Yup'ik -- has been comparatively extensive, little systematic work has been done on Sugpiaq, and many assumptions about the language are based on our understanding of its relative, Central Alaskan Yu'pik. While there has been some documentation of Sugpiaq, it is unpublished, and as a result, study of Sugpiaq is disadvantaged in a number of important ways, including the community's ability to maintain or revitalize the language. This project addresses these problems in the following ways: two summers of fieldwork will focus on the documentation of Sugpiaq syntax. The results of fieldwork will inform: a) a description of syntactic aspects of contemporary spoken Sugpiaq, b) an investigation of prehistoric contact between the Sugpiat and the Unangan (a.k.a. Aleut) and Athabaskan-Eyak-Tlingit language groups, and c) a collaboration with local language teachers in the production of language learning materials for the language maintenance and revitalization programs. The latter involves regular discussions on methods of adapting the results of fieldwork to language lessons and training in elicitation techniques to expand these lessons.



Your Next Steps

Key Questions to Guide Initial Planning

- Is **infrastructure** is needed? How could the project develop it?
- From the abstract of this workshop award: **“One important dimension of carrying out scientific investigation is having the resources (such as personnel, buildings, or equipment) needed to carry out these activities, that is, infrastructure. Diversity of scientific investigators is another important dimension.”**
- What are the resources/language materials that exist for your language. (Where are they? Are they digital?)
- What resources are not accessible to the tribe and its citizens?
- Identify previous research on your language.
- What gaps exist? Are there certain kinds of activities, knowledge or use of language that have not been documented? Would any of those be appropriate for DLI-DEL?

Consider Solicitation Fit and Funder Mission

- What is your proposed activity and research question? How can you strengthen its “fit” to what DLI-DEL funds?
- Do the proposed project activities and resulting documentation make sense with what project activities you plan to do?
- How do the proposed activities **align** with the DLI-DEL solicitation requirements? How do they complement the existing resources and gaps?
- How will the project close out? Plan for archiving and data management throughout.



Final Tips

“Know Your Audience!”

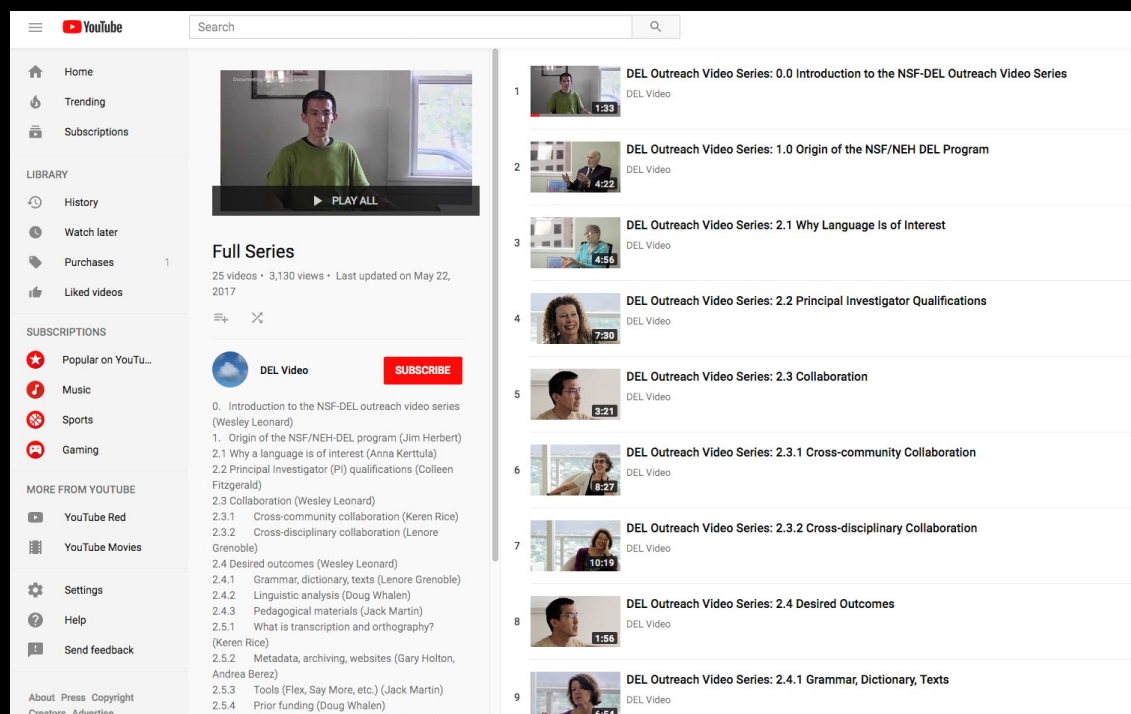
- Reviewers have read the solicitation. They will look for how a project fits with it.
- Reviewers are generally linguists and anthropologists, some familiar with Native American language communities.
- Show familiarity with best practices for language documentation.
- Project description should use all the space to get to the point - tailor the description to this audience.
- A thoughtful plan for sustainability for the long-term, including archiving.
- Activities should match the budget. Actual award amounts range from \$40K - \$330K.

Talk to the Program Officer

DLI-DEL Contacts for Solicitation 20-603

- Joan M. Maling - SBE, telephone: (703) 292-8046, email: jmaling@nsf.gov
- Tyler S. Kendall - SBE, telephone: (703) 292-2434, email: tkendall@nsf.gov
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- Erica Hill - GEO, telephone: (703) 292-4521, email: erhill@nsf.gov
- Jacquelyn Clements - NEH, telephone: (202) 606-8475, email: JClements@neh.gov

DEL Outreach Video Series on YouTube



- Topics:
 - Principal Investigator (PI) qualifications
 - Desired outcomes
 - Prior funding
 - Preparing an NSF proposal
 - Intellectual merit & broader impacts
 - Individual proposal components
 - Establishing timelines
 - Budgeting
 - Large collaborative projects
 - Review process
 - Six things that tank a proposal

- https://www.youtube.com/playlist?list=PLx12labZqbzGbA0rQU0xg5cMzz9rp_dqY

Q&A Shortly...Next Webinar Sessions

- **Session 2 (September 15):** Elements of NSF Proposals
- **Session 3 (September 22):** How do DLI-DEL proposals get reviewed? Presentation on NSF merit review, along with a panel discussion from experienced DLI-DEL reviewers
- **Session 4 (September 29):** Budgeting DLI-DEL Proposals; panel with NSF past and current PIs talk about their experiences budgeting and managing an NSF grant)
- **Session 5 (October 6):** Archiving and Data Management Plan, led by archivists specializing in Indigenous collections