

NSF 24-109

Dear Colleague Letter: NAIRR Pilot Expansion: Researcher Training, Community Outreach, and Classroom Education

July 18, 2024

Dear Colleague:

The National Science Foundation's (NSF) Advancing education for the future AI workforce (EducateAI) Initiative and the National Artificial Intelligence Research Resource (NAIRR) Pilot both aim to promote and diversify AI education and AI workforce development. The NAIRR pilot launched in January 2024 as a proof of concept to demonstrate the value and potential impact of the full NAIRR vision and strives to expand access to the critical computing, data, model, software, and user support resources needed to advance AI education and research in a manner that protects privacy, civil rights and civil liberties. Broadening access to AI resources, and training new researchers, educators, and students to use the available computing, data, platforms, software, models, tools and expertise is a critical area called out in the NAIRR Task Force Report. NSF's **EducateAI initiative** aims to enable **educators** to make state-of-the-art inclusive AI educational experiences available nationwide. The focus is on teaching AI concepts, not on the use of AI in teaching other subjects.

This Dear Colleague Letter (DCL) announces the interest of NSF in receiving proposals that expand the NAIRR Pilot community under two different focus areas, one focus area on community outreach and training to new and emerging *researchers*, and the other focus area on *educators* bringing inclusive AI-educational experiences to classrooms nationwide. Submissions led by teams located in Established Program to Stimulate Competitive Research (EPSCoR) jurisdictions or rural areas, and from Minority Serving Institutions (MSI) are encouraged. Awarded teams, as appropriate, may be expected to maintain coordination with the NAIRR Pilot Program Management Office and any relevant NAIRR Pilot Working Groups as described on https://nairrpilot.org/.

Focus Area 1 (FA1): New and Emerging Researchers

While numerous AI resources have been made available to the research community through the opportunities described at https://nairrpilot.org/, navigating the available resources,

learning how to use them and submitting research requests for access can be challenging for new and emerging researchers.

This focus area of the DCL invites submission of supplemental funding requests, Early-concept Grants for Exploratory Research (EAGER) proposals, and Conference proposals, including symposia and workshops, in the following areas:

- Outreach, workshops, and/or other community engagement activities intended to build research capacity for using NAIRR pilot resources, particularly in EPSCoR jurisdictions, rural areas and/or MSI communities.
- Training opportunities or workshops to help research communities navigate NAIRR pilot resources and learn how to use and request access to them.

Proposals and supplemental funding requests should clearly identify the community or communities their activities are focused on reaching, (for example, geographic communities, institution-type communities, topical communities) and describe their existing relationships to these communities. Submissions should describe how the community's requirements were identified or will be identified as part of the proposed activity.

- Researchers with existing NSF awards may request supplements to those awards;
- New collaborations proposing exploratory work may submit EAGER proposals. EAGER awards may be for up to \$300,000 for up to two years;
- New collaborations proposing community engagement, outreach or training activities may submit Conference proposals for up to \$300,000 for up to 18 months.

Focus Area 2 (FA2): Educators

This **educator** focus area of the DCL invites Conference proposals, including symposia and workshops, and Research Coordination Network (RCN) proposals to support capacity building for inclusive AI education in undergraduate and master's level courses that utilize the NAIRR Pilot resources.

Conference proposals should seek to bootstrap instructional capacity and a community of practice among faculty who will adopt and implement new AI courses or modules into educational pathways at 2-year and 4-year colleges and universities. Expected outcomes for conferences are instructor confidence in utilizing NAIRR Pilot resources, as listed on nairrpilot.org, and implementation-ready plans for including AI content in courses.

Conference proposals must specify the process for recruiting participants to ensure diversity by institution characteristics (For example, EPSCoR eligible, MSI, emerging research institution, 2-year college, rural-located or rural-serving institution). The conference could involve multiple convenings split by region, education level, or topic. A strong proposal will complement and coordinate with Computing in Undergraduate Education Mobilizing awards

that are developing a shared national vision around innovation and inclusion in undergraduate computing education. Conference proposals are for up to \$300,000 for up to 18 months.

Research Coordination Network (RCN) proposals should seek to create and sustain a community of practice by fostering collaboration among AI education communities with the goal of creating and sharing inclusive AI educational resources (e.g., curricula, data sources, assessments) and best practices for using education infrastructure to support AI education at undergraduate and master's levels. Proposals should consider creating a cohort of AI Education Fellows who will serve as champions at their institution for AI education and as a resource for other faculty seeking to adapt and implement AI education utilizing local and NAIRR Pilot resources.

The AI Education RCN should build upon research on broadening participation to better understand and inform efforts to support instructors and students from all backgrounds, including groups underrepresented in computing, and contribute to research and development needed to make state-of-the-art, inclusive AI education available to all students. Additionally, the RCN should support the goal of the NAIRR Pilot initiative which aims to broaden access to computational, data, software, model and related educational resources needed for AI research and education. An expected outcome for the RCN is to develop a vision for how resources like those included in the NAIRR Pilot can be allocated to ensure that all institutions have the capacity to provide inclusive and audience appropriate AI education. Proposals also need to be responsive to the requirements of the RCN solicitation (NSF 23-529). RCN proposals are for up to \$500,000 for up to five years.

ADDITIONAL DETAILS

Prior to submitting a proposal or a supplemental request for either focus area, prospective principal investigators are required to submit a 1-2 page concept outline to confirm appropriateness of fit with this DCL through emailing NAIRR_Pilot@nsf.gov. If approved to submit, information about where to direct the proposal will be provided in the Program Officer Concurrence email. A copy of the communication must be uploaded in Research.gov in the Program Officer Concurrence section for EAGER and Conference proposals, or in the Supplementary Documents section for supplemental funding requests.

Titles for Focus Area 1 (FA1) Educators should begin with "NAIRR Pilot Expansion: FA1" after any PAPPG or solicitation specific title requirements.

Titles for Focus Area 2 (FA2) New and Emerging Researchers should begin with "NAIRR Pilot Expansion: FA2" after any PAPPG or solicitation specific title requirements.

Complete preparation and submission guidance for supplemental funding requests and EAGER and Conference proposal is contained in the NSF Proposal and Award Policies and

Procedures Guide (PAPPG) as follows:

- Supplemental funding requests: PAPPG Chapter VI.E.5
- EAGER proposals: PAPPG Chapter II.F.3
- Conference proposals: PAPPG Chapter II.F.8

Complete guidance on the preparation and submission of RCN proposals is contained in the RCN program solicitation.

Proposals and supplemental funding requests will be considered as they are submitted and as funding is available through December 15, 2024.

All questions concerning this DCL should be directed to NAIRR_Pilot@nsf.gov and not the signatories of this DCL.

Sincerely,

Dr. Gregory D. Hager, Assistant Director, CISE

Dr. James L. Moore, Assistant Director, EDU