Brief overview of U.S. NSF CISE OAC Public Access Program

Plato Smith, Program Director CISE/OAC – Public Access Program EPSCoR Live! 13 March 2024, 4pm – 5pm



NSF CISE OAC Funding Opportunities - Public Access Program Development

1. Strategic Investments

- a. Special Opportunities/Cross-cutting and national initiatives (\$1.75 mil)
 - i. Cyberinfrastructure for Public Access and Open Science (CI PAOS)

b. Public Access Program

i. Collaboration with other programs and divisions on projects co-funding support (interdisciplinary research)

2. Types of Awards

- a. Standard or Continuing Grant (mid to large)
 - i. Collaborative/RCNs (co-funding support and align with other programs)
 - ii. Past solicitation Findable, Accessible, Interoperable, Reusable Open Science Research Coordination Networks (**FAIROS RCN**) (NSF 22-553) (\$1.5 mil/RCN)

3. Dear Colleague Letter (special focus area/theme)

- a. Dear Colleague Letter: Open Science for Research Data (NSF 20-068)
- b. Dear Colleague Letter: Effective Practices for Data (NSF 19-069)
 - i. Pilot to small-scale
 - ii. **EAGER** (exploratory) (up to \$300k for up to two-year duration)
 - iii. Conference and Workshop (up to \$50K up to one-to-two-year duration)



NSF CISE OAC Public Access Program

High-level NSF Public Access goal

• Funding projects that advance the understanding of, provide resources for, and/or encourage practices toward enhancing access (includes but not limited to public access and open science – interdisciplinary)

OAC-led public access program

- Development of NSF Public Access Plan 2.0: Ensuring Open, Immediate and Equitable Access to National Science Foundation Funded Research (NSF 23-104) in 2023 (response to 2022 OSTP Memo)
- Series of public access and open science webinars during the 2023 Year of Open Science

NSF funding for public access projects

- Campus Cyberinfrastructure (CC*) (NSF 24-530)
- Geosciences Open Science Ecosystem (GEO OSE) (NSF 23-534)
- Pathways to Enable Open-Source Ecosystems (POSE) (NSF 23-556)
- Findable, Accessible, Interoperable, Reusable Open Science Research Coordination Networks (FAIROS RCN) (NSF 22-553) Program Solicitation – led by CISE OAC Directorate
- Dear Colleague Letter: Supporting Open Polar Research Software (NSF 23-053)
- Dear Colleague Letter: Reproducibility and Replicability in Science (NSF 23-018)
- Dear Colleague Letter: Open Science for Research Data (NSF 20-068)
- Dear Colleague Letter: Effective Practices for Data (NSF 19-069)



Development of the FAIROS Program

Findable, Accessible, Interoperable, Reusable Open Science (FAIROS) RCN

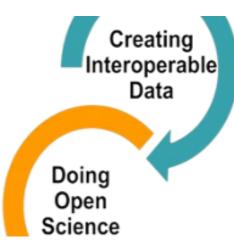
- Fiscal Year 2022 (inaugural FAIROS RCN)
- 10 RCNs; \$12.5 million
- Catalytic strategic investments
- Three-year projects

EArly-concept Grants for Exploratory Research (EAGER)

- Fiscal Year 2023 (Public Access Initiative)
- 7 EAGERs; 2 Conferences; 1 Workshop
- Total awards: \$1,781,676
- Two and one-year projects



Examples of Funded FAIROS RCNs - FY22



FAIROS RCN

Example 1 – OAC 2226368

Ethical Open Science for Past Global Change Data



FAIROS RCN

Example 2 – OAC 2226453

FARR: FAIR in ML, AI Readiness, & Reproducibility RCN





FAIROS RCN

Example 3 – OAC 2226184

NoCTURN: Non-Clinical Tomography Users Research Network



Examples of EAGERs and Conference - FY23

- **EAGER** Investigating Reasonable Costs to Achieve Public Access to Federally Funded Research and Scientific Data Code for Science & Society, Invest in Open Infrastructure Initiative https://www.nsf.gov/awardsearch/showAward?AWD_ID=2330827
- EAGER INFORMATE: Improving Networks for Organizational Repositories through Metadata Augmentation, Transformation and Evolution – Metadata Game Changers -https://www.nsf.gov/awardsearch/showAward?AWD_ID=2334426
- Conference US Research Data Summit National Academy of Sciences
 - https://www.nsf.gov/awardsearch/showAward?AWD_ID=2335787



Some focus areas for Public Access Program (include but not limited to):

- Addressing data formats, metadata standards, and harmonization across domains while leveraging existing cyberinfrastructure to advance research data lifecycle management;
- Improving Interoperability and Reproducibility in Research Data across Domains and Projects;
- Promoting machine-readability, reproducibility, and utility for Al computing, resource, and tools to deploy modular RDM training for Pls, trainees, students at any scale;
- Improving FAIR competency, capability, and community building within and across multiple communities of practice.



References

- 1. ARL Views. (2023). US National Science Foundation Shows Commitment to Year of Open Science with Strategic Investments in Infrastructure and Learning. https://www.arl.org/blog/us-national-science-foundation-shows-commitment-to-year-of-open-science-with-strategic-investments-in-infrastructure-and-learning/
- 2. FAIROS RCN Example 1 (Ethical Open Science for Past Global Change Data) https://eos-rcn.github.io/web/
- 3. FAIROS RCN Example 2 (FARR: FAIR, AI Readiness & Reproducibility) https://www.farr-rcn.org
- 4. FAIROS RCN Example 3 (NoCTURN) https://nocturnetwork.org
- 5. FAIROS RCN Example 4 (STEMEd+ Commons) https://stemedplus.commons.msu.edu
- 6. FAIROS RCN Example 5 (SEEKCOMMONS) https://seekcommons.org
- 7. FAIROS RCN Example 6 (REPETO:|) https://repeto.cs.uchicago.edu
- 8. FAIROS RCN Example 7 (FAIR Facilities and Instruments) https://ncar.github.io/FAIR-Facilities-Instruments/
- 9. Findable Accessible Interoperable Reusable Open Science Research Coordination Networks (FAIROS RCN) NSF 22-553 https://www.nsf.gov/pubs/2022/nsf22553/nsf22553.htm
- 10. U.S. National Science Foundation Advanced Search Results for Reference Code 121Z (NSF Public Access Initiative) https://www.nsf.gov/awardsearch/advancedSearchResult?PIId=&ProgRefCode=121Z
- 11. U.S. National Science Foundation Public Access Initiative https://new.nsf.gov/public-access
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- 13. U.S. National Science Foundation Research Coordination Networks (RCN) https://new.nsf.gov/funding/opportunities/research-coordination-networks
- 14. U.S. National Science Foundation National Artificial Intelligence Research Resource (NAIRR) Pilot https://new.nsf.gov/focus-areas/artificial-intelligence/nairr
- 15. U.S. National Science Foundation Proposal & Award Policies Procedures Guide (PAPPG) https://new.nsf.gov/policies/pappg