

NSF 21-122

Dear Colleague Letter: Enabling Secure and Trustworthy Cyberspace (SaTC) CISE-SBE Interdisciplinary Collaborations

September 27, 2021

Dear Colleagues:

The National Science Foundation's (NSF) Secure and Trustworthy Cyberspace (SaTC) program aims to promote research on the fundamentals of security, privacy, and trustworthy cyberspace as a multidisciplinary subject that will lead to new knowledge and approaches to design, build, and operate cyber systems, protect persons, organizations, and existing infrastructure, and motivate and educate individuals about cybersecurity and privacy. With this DCL, NSF is announcing its intention to encourage the submission of EArly-Concept Grants for Exploratory Research (EAGER) proposals that will foster novel, excellent interdisciplinary research in the SaTC domain to be carried out in collaborations between one or more Computer and Information Science and Engineering (CISE) researchers and one or more Social, Behavioral, and Economic Sciences (SBE) researchers.

Many scientific and practical challenges of security, privacy, and trust have both social and technical dimensions, making it important to encourage interdisciplinary collaborations among researchers from the disciplines represented in NSF's CISE and SBE directorates on topics that draw on the strengths of their respective disciplines. Some of these topics are suggested in the most recent SaTC program solicitation

(https://www.nsf.gov/publications/pub_summ.jsp?

WT.z_pims_id=504709&ods_key=nsf21500), but other topics relevant to the SaTC program are also welcome.

NSF anticipates funding up to 10 EAGER awards pursuant to this DCL, subject to the availability of funds and quality of proposals received. Proposals in response to this DCL are due December 10, 2021.

INSTRUCTIONS:

1. Prior to submitting an EAGER proposal, send an email to the email alias listed at the

end of this DCL with a description of the project concept. Your description should be no more than two pages. State the project title, team members, their disciplines, and their institutional affiliation. Make clear the contributions, questions, and collaborative activities planned. It should also speak both to the purpose of this DCL (encouraging CISE-SBE interdisciplinary collaborations) and to the *NSF Proposal & Award Policies & Procedures Guide* (PAPPG) requirements for EAGER proposals (high risk, high reward, potentially transformative, and not suitable for review in regular programs).

Program directors will provide feedback and inform you as to whether you are invited to submit a full EAGER proposal. Submit your two-page project description as early as possible to ensure program directors have time to consider the description. Full submissions sent without an invitation from the identified program directors below will be returned without review.

If you are invited to submit a proposal, please follow these guidelines:

- 2. Submit your invited EAGER proposal by December 10, 2021.
- 3. Your proposal should include at least one PI from the fields supported by NSF's CISE directorate, and at least one from the fields supported by the SBE directorate. The collaborations must be interdisciplinary and new to the SaTC program; operationally, this means two (or more) of the cross-directorate collaborators cannot have previously received a joint award from the SaTC program or from a program with a similar mission. PIs may be from a single organization or from multiple organizations. For proposals involving multiple organizations, a single proposal with subawards administered by the lead organization is permitted; separate submissions from multiple organizations are not allowed. A PI or co-PI may participate in only one submission pursuant to this DCL.
- 4. Proposals should highlight why the research challenge cannot be addressed without multidisciplinary collaboration and how expertise from each discipline (CISE and SBE) will contribute to intellectual merit and broader impacts for the SaTC research community. Proposals in which one discipline or set of skills is mainly in service of the other are not appropriate. Ideally, the research will be interdependent, integrated, and will contribute novel understanding and impact on privacy, security, and trust in cyberspace, with contributions valued by both the CISE and SBE communities. Such integration and impact may require extra effort in leadership, regular communication, and cross-training. Proposals must describe how the collaboration will work in the planning, research, and dissemination stages.

We encourage opportunities for participation by undergraduate and graduate students and postdoctoral fellows, K-12 students, industry representatives, and others as well as efforts to broaden participation of underrepresented groups, including women, minorities, and persons with disabilities, in the development of the research. We also

encourage proposals from Minority Serving Institutions (MSIs) and proposals from EPSCoR states.

5. EAGER is a type of proposal used to support exploratory work in its early stages on untested, but potentially transformative, research ideas or approaches. Thus, proposals responsive to this DCL must include a section stating why they are appropriate for an EAGER (for instance, proposals that respond to this DCL may be "high-risk, high-reward" through involving radically different approaches, applying new expertise, or engaging novel disciplinary or interdisciplinary perspectives). EAGERs may request up to \$300,000 for two years, though we encourage proposers to ask for only what they need.

EAGER proposals may be submitted via Fastlane, Research.gov or Grants.gov. Guidance on the preparation and submission of EAGER proposals is contained in Chapter II.E of the PAPPG available electronically on the NSF website at: https://www.nsf.gov/publications/pub_summ.jsp?ods_key=pappg. To ensure proper processing, please begin the proposal title with the symbol EAGER:, and the subject line of your initial email, with: **EAGER: DCL: SaTC: Enabling Interdisciplinary Collaboration**.

Please use the alias satc-cise-sbe@nsf.gov to contact the following SaTC program directors regarding this DCL:

Sara Kiesler Dan Cosley Daniela Oliveira Jeremy Epstein

Sincerely,

Arthur Lupia
Assistant Director, SBE

Margaret Martonosi Assistant Director, CISE