Advancing Educational Innovations that Motivate and Prepare PreK-12 Learners for Computationally-Intensive Industries of the Future

Dear Colleague Letter for the ITEST (19-583) and CS for All (20-539) Solicitations

Call for Proposals

- This Dear Colleague Letter calls for proposals that specifically investigate educational approaches to motivate and prepare preK-12 learners for computationally-intensive industries of the future.

- Proposals that respond to this call should meet requirements of each relevant solicitation: Innovative Technology Experiences for Students and Teachers (ITEST, 19-583) or Computer Science for All (CS for All: Research and RPPs, 20-539).

Background

- Many innovations in industry are fueled by computational advances.

- Computer science and computational thinking are projected to become even more central to current and future industries, including those that have not historically been considered as STEM-oriented industries.

- Recent studies have raised questions about the extent to which young people are aware of industries of the future and whether they are interested in pursuing career pathways that lead to these industries.

Call for Proposals

- This DCL calls for educational approaches or pathways that support pre-K-12 learners' motivation to pursue, and preparation toward, industry-relevant computational thinking skills.

- These educational approaches should promote interest in, and provide information about, computationally-intensive jobs of the future.

- These educational approaches may address other relevant STEM skills and practices.

Call for Proposals

- We call for proposals that incorporate the perspectives of stakeholders such as industry professionals, pre-K educators in formal or informal settings, family members, or professionals who advise youth in career planning.

- Proposals should include research that contributes to knowledge about key issues.

- Industries of the future should be grounded in principles of inclusivity and equity. This DCL encourages educational approaches that broaden participation in career pathways related to computer science.

Call for Proposals

We encourage conference proposals that convene stakeholders to:

- advance knowledge or practice relative to educational approaches that prepare youth for the computationally-intensive careers of the future;

- identify leverage points for addressing core issues; and/or

- set an agenda for future research and practice in this area.

Questions?

Thank you for your time and interest!