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Submitter Information

Organization: CAST

General Comment

See attached file(s)

Attachments

CAST OSTP-NSF RFI May_2025

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Forty Forward

May 28, 2025

To Whom it May Concern:

We are writing to provide comments in response to the Office of Science and Technology Policy (OSTP), the Networking and Information Technology Research and Development (NITRD) National Coordination Office (NCO) Request for Information (RFI) regarding how the previous administration's National Artificial Intelligence Research and Development Strategic Plan (2023 Update) can be rewritten so that the United States can secure its position as the unrivaled world leader in artificial intelligence (AI). Consistent with -and in addition to- comments submitted in March 2025 to the OSTP RFI on the Development of an AI Action Plan, CAST submits the additional recommendations below.

To ensure we utilize AI to maximize participation in the education to employment pipeline -which we know must support the 20 percent of 16 to 24 year olds who remain out of school and work, in order to provide the 1.5 million workers that U.S. employers need- CAST encourages OSTP to prioritize the following:

Prioritize and Invest in Authentic and Simulated Work-Based Learning

OSTP would be wise to invest in AI infused work-based learning (WBL) that offers authentic and simulated projects primarily designed for learners who may have not completed high school, were disengaged from learning in their youth/young adult years, may/may not be or have attended community college, and/or who respond well to flexible, technological-based supports to acquire and demonstrate industry required skills.

Investments in work-based learning, including simulated work-based learning, that is consistent with requirements in the Carl D. Perkins Act and that utilizes AI, helps industry trainers ensure easy project/training set-up, build a library of projects that can be easily readapted as industry skills change, and incorporate AI for mentoring and evaluation of industry relevant skills and competencies. AI-infused work-based learning can be made available across multiple platforms, including those used by community colleges, workforce training boards/institutions. AI infused work-based learning can also cut across settings and follow the learner. For example, a student engaged in a K-12 CTE program can continue to upskill using the same platform in an apprenticeship or a postsecondary CTE program, or a high school student can receive early college credit for simulated work-based learning. Additionally, AI (as part of WBL) can help bring industry competencies to learners more quickly. As competencies and skills, especially in emerging industries, are defined, we can train future workers on them, accelerating the timeline between research and development, manufacturing, and scaled adoption.

AI can also support evaluation against industry standards, alleviating pressure on industry representatives to train prospective talent and provide guidance. AI can be used to address supply side challenges in work-based learning models such as lack of a network to find a work-based learning opportunity (many opportunities are promoted exclusively in top-league universities or filled through networks); age restrictions (many companies cannot have people under 18 for safety reasons); emerging roles are not yet widely available and therefore offer limited training sites or in-person trainers. Furthermore, people in rural or suburban settings may live far from work-based learning locations, and the expense of commuting or relocating may be out of reach. Flexibility in terms of when and where to learn is another advantage of simulated opportunities.

CAST knows from our work with industry leaders in advanced manufacturing and with CTE and community college STEM educators, that there is a need for simulated and authentic work-based learning in short-term training programs, and inside and outside formal education settings. OSTP can help ensure that AI can help reduce barriers to having more prospective workers meet industry-specific skills and gain credentials and employment.

CAST appreciates the opportunity to provide additional comments to those made in March 2025. Please let Bobby Moore know if you have questions.

Sincerely,

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