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**INTEGRATING
ARTIFICIAL INTELLIGENCE**

Massachusetts AI Task Force Recommendations, December 2024

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OVERVIEW

The rapid access and usage of artificial intelligence (AI) by students, educators, and communities presents both unprecedented opportunities and significant risks for educational equity across the Commonwealth. While some schools and districts are leveraging AI to enhance teaching and learning, others may lack the resources, training, and infrastructure to effectively determine strategies for teaching with and about AI. Without proactive guidance and support, digital access, use, and instructional design divides¹ may only continue to expand, further impacting historically underserved communities.

Therefore, the Massachusetts Department of Elementary and Secondary Education (DESE) Office of EdTech (OET) and Digital Literacy and Computer Science (DLCS) team partnered with [ISTE+ASCD](#) to convene an AI Task Force focused on developing recommendations to support educators across the Commonwealth. A diverse and representative AI Task Force convened throughout the summer and fall of 2024 to:

- Develop a shared understanding of AI, where it fits within the broader landscape of education, and corresponding opportunities and risks.
- Review guidance and resources from states, ministries of education, and international organizations.
- Determine guidance and resources that may be needed by Massachusetts educators, students, families, and communities to support their use of AI.

The AI Task Force approached its work through an equity lens, leveraging DESE's Racial Equity Decision-Making Tool to ensure that recommendations focused on "breaking down barriers and providing targeted support to students, families, and communities who have been historically marginalized". The following questions were referred to throughout the development process:

- Who are the most affected stakeholders and how can we involve them in the development of this initiative?
- What are the strategies we can utilize to advance racial equity and eliminate unintended consequences?
- What are the potential racial equity impacts of this particular recommendation?

In addition to these questions, the AI Task Force surfaced and considered strategies for mitigating three AI-specific risks that may further exacerbate inequities including harmful bias, misinformation, and digital divides.

K-12 leaders and teachers are striving to use AI safely and responsibly as they create learning experiences that are relevant, real-world, and interactive in alignment with DESE's Educational Vision. Educators can use AI to support transformational learning experiences by personalizing learning, enhancing teaching strategies, and improving operational efficiency. However, educators also need to consider ways to mitigate harmful bias, ensure data privacy, address misinformation and disinformation, and move toward digital inclusion. AI guidance and resources that balance innovation with ethical considerations and public trust are essential for safe, responsible, and effective use.

1. U.S. Department of Education, Office of Educational Technology, National Educational Technology Plan, Washington, DC, 2024.

PROCESS

Taking into account DESE's Racial Equity Decision-Making Tool, the team focused on ensuring that the most affected stakeholders were involved throughout the process. The process included multiple methods of diverse stakeholder engagement, including convening an AI Task Force with proportional representation, facilitating listening sessions, and soliciting input via surveys.

The AI Task Force was developed through an application process focused on elevating diverse educator voices from schools and districts across the Commonwealth. Over 160 educators applied and 17 were selected with an emphasis on bringing together diverse perspectives from across regions, school types, and roles, as well as identity markers such as race, gender, and native language. The AI Task Force focused on building a shared understanding of AI and intentionally brought a variety of diverse perspectives into the work.

In addition to the AI Task Force collaboration, listening sessions were facilitated with educators, students, families and community members to ensure multiple and diverse voices were included throughout the process. Surveys were also distributed across those same groups to allow for varied opportunities to share perspectives. Listening sessions and surveys focused on learning more about the hopes, fears, and needs related to the use of AI in education and across communities.

The information gathered through the resource review, listening sessions, surveys and multiple convenings of the AI Task Force have resulted in a robust set of recommendations to be considered.

RECOMMENDATIONS

The recommendations of the AI Task Force include high leverage actions DESE can take to support schools and districts in navigating the integration of AI in education. These recommendations were developed through an intentional vetting process that included:

- Review of key takeaways from pre-existing federal, state, international, and industry-released guidance, recommendations, and resources.
- Consideration of stakeholder-identified hopes, fears, and needs combined with identified opportunities and risks to identify solutions that would address the common themes.
- Development of initial recommendations based on the proposed solutions.
- Analysis and prioritization of recommendations that:
 - advance diversity, equity, and inclusion, particularly racial equity.
 - most align with the work of the state.
 - are considered most urgent and impactful.

Each of these recommendations was developed through an equity lens, ensuring diverse stakeholder engagement in the development process and a consideration of those strategies that will advance diversity, equity, and inclusion.



I. RESOURCE CREATION AND CURATION

I.A. CREATE RESOURCES FOR ALL STAKEHOLDERS TO BUILD AI LITERACY

While AI has been used in a variety of ways for decades, the widespread use of generative AI has created an urgent need for comprehensive AI literacy for all educational stakeholders. The recent expansion of AI tools has left educators, staff, students, and community members without necessary knowledge and skills to evaluate risks and opportunities, leading to potential misuse, security vulnerabilities, and missed educational opportunities. In order to support educators, staff, students, and community members to use AI safely and responsibly, the AI Task Force recommends DESE create and distribute a comprehensive suite of high-quality, accessible resources tailored to different stakeholder groups. These resources may include:

- clear and precise definitions of AI-related terms and concepts, distinguishing what AI is and is not;
- foundational background information that progresses from basic to a more complex understanding of AI;
- critical issues such as harmful biases and inequities in usage, data privacy considerations, age restrictions, security, misinformation, overreliance, academic integrity, and licensing concerns; and
- examples of safe, effective, and inclusive AI practices.

A key deliverable might include a dynamic, visually engaging, one-page quick reference guide customized for different stakeholder groups including Leadership and Governance, Curriculum and Instruction, Assessment, Human Resources and Professional Development, Student Support, Financial Management, and Asset Management (IT) as well as families and students. To ensure effective distribution and implementation, DESE could establish an AI Task Force Ambassador program and create resources in multiple formats including interactive elements, knowledge checks, practical examples, and shareable social media content such as short videos. The AI Task Force suggests that these materials be translated into multiple languages and distributed through diverse channels, including educational conferences and community events to ensure broad accessibility.

Through comprehensive resource development and strategic distribution, DESE can address the current baseline knowledge gap around AI, enabling stakeholders to make informed decisions about AI implementation while mitigating the risks and maximizing educational benefits for all students.

I.B. DEVELOP A LIST OF RECOMMENDED AI TOOLS AND RESOURCES

The proliferation of AI tools and the rapid development of new ones has created an overwhelming and potentially risky landscape for educators. Individual educators, schools, and districts may not have the time, expertise, and/or resources to effectively evaluate the safety, effectiveness, and appropriateness of the countless AI tools available. Further, because of their quick entry into the education space, there is not yet data available to determine an evidence-base for these newer tools. To address this gap, the AI Task Force recommends DESE establish a dedicated team of educators to complete an evaluation process determining individual resources that meet specific evaluation criteria around core areas such as safety, inclusivity, usability, and interoperability. Following this, DESE may consider working with the research team to determine methods for establishing an evidence-base of effectiveness for the evaluated tools.

A deliverable might include an interactive, easily accessible repository of curated and recommended AI tools and resources, guided by a comprehensive evaluation rubric. DESE could provide stipends or incentives for educators to contribute their expertise in developing and maintaining this dynamic repository. Through the availability of a trusted, centralized resource for identifying appropriate AI tools, DESE would provide educators with the information needed to reduce the risk of using harmful or ineffective AI solutions while supporting more equitable access to high-quality AI educational resources.

I.C. CREATE OR RECOMMEND AN ENTERPRISE AI TOOL

With the range of tools available and the importance of securely handling student data, the AI Task Force recommends that DESE create or recommend enterprise-level AI tools, with large language model capabilities, that can securely be used by schools and districts across the Commonwealth. This initiative may leverage collaborations with other state agencies and partners who are leading similar technology efforts across the state. If DESE were to recommend a tool, comprehensive information would need to be provided regarding the private enterprise software including alignment with requirements set forth by the Executive Office of Technology Services and Security and the Executive Office of Education. Additionally, the AI Task Force recommends that the tool work seamlessly across various operating systems and devices, with careful consideration given to connectivity requirements and limitations. Prior to widespread implementation, usability testing may strengthen the recommendation and be followed by ongoing evaluation processes to determine effectiveness and gather user feedback. Once a tool has been selected, training could provide educators with the information needed to effectively use these more secure AI resources in their practice.

II. PROFESSIONAL DEVELOPMENT

II.A. OFFER A VARIETY OF PROFESSIONAL LEARNING OPPORTUNITIES

Educational technology, including AI, is only effective when it is integrated with strong pedagogy and by well-trained educators. This includes ensuring that AI is used in ways that are consistent with evidence-based pedagogy as opposed to replicating ineffective practices more efficiently. Therefore, in order for AI to be implemented in ways consistent with the Department's vision of learning experiences that are relevant, real-world, and interactive, the AI Task Force recommends DESE offer a variety of ongoing, no-cost professional learning experiences to educators across the Commonwealth. With the goal of reaching a broad range of educators, including teachers, support staff, and administrators, DESE might consider offering these opportunities in multiple formats, including virtual, hybrid, and online synchronous and asynchronous options. Additionally, in order to meet educators where they are, content may include a progressive pathway, allowing educators to build from foundational knowledge to more advanced applications at their own pace.

Professional learning sessions may also include regional workshops, showcases, and roundtables strategically organized across the Commonwealth to ensure accessibility for all educators to learn from their colleagues' experiences with AI. DESE could partner with community organizations as well as Collaboratives to host these sessions in order to amplify outreach efforts and broaden participation across districts. Given district financial constraints, additional support may be considered such as coverage for substitute teachers, travel expenses, and other costs that might otherwise limit or prevent participation by those interested. Finally, educators could be further supported across all of these offerings by providing professional development points for participating educators.

This comprehensive professional learning approach will build capacity across the Commonwealth for innovative teaching practices consistent with DESE's Educational Vision leading to more engaging and equitable learning experiences for all students.



II.B. PROVIDE TRAINING ON STUDENT DATA PRIVACY LAWS

With a range of technology tools, including AI tools, being used in classrooms, ensuring that administrators, educators, and staff understand and adhere to student data privacy laws is critical for protecting student and staff information. District educators and staff may unknowingly use AI tools that lack transparent data practices, potentially exposing sensitive student information to unauthorized collection or misuse. Therefore, the AI Task Force recommends DESE provide turnkey training materials and resources specifically focused on student data privacy laws that could be incorporated into regularly scheduled training windows as determined by schools and districts. Content may include an overview of student data privacy laws and regulations as well as best practices. This supports educators in understanding their responsibilities when using educational technology so they can make informed decisions to safeguard student privacy rights - ultimately creating a safer digital learning environment where student data is consistently protected across the Commonwealth.



III. POLICY SUPPORTS

III.A. CREATE SAMPLE DISTRICT GUIDELINES AND POLICIES

AI policies and guidelines can address complex considerations of AI usage in education including issues of equity, access, and meeting diverse student needs. Without guidance for students and educators, there is the possibility of inconsistencies that could lead to privacy violations, counterproductive AI use, widening of the digital divide, or discrimination. Therefore, the AI Task Force recommends that DESE create sample language for guidelines and policies that districts can adapt to their local contexts. These sample guidelines and policies could explicitly address key areas such as technology access disparities, curriculum integration, assessment practices, academic integrity, harmful bias, and data privacy, including specific look-fors that align classroom practices with policy requirements. It is recommended DESE ensure the sample guidelines and policies reflect the needs of diverse student populations by drawing on guidelines from across states with varied demographics, while providing detailed background information and context to support school committees with varying levels of AI knowledge. To support effective implementation, DESE may also consider designating a contact person to guide educators through the policy development process. By providing sample guidelines and policies, DESE can support educators in developing well-informed, equity-focused policies that protect students and maximize the benefits of AI.

III.B. INTEGRATE AI EDUCATION INTO EDUCATOR PREPARATION PROGRAMS

Educator Preparation Programs (EPPs) may lack comprehensive training in educational technology integration, particularly around emerging technologies like AI. This gap leaves new educators underprepared to effectively and safely use technology to enhance instruction, which includes integrating AI tools in their classrooms. Without standardized expectations for technology integration in Ed Prep Programs, new teachers enter the profession with vastly different levels of digital literacy, AI literacy, and technology integration competency, resulting in an increased possibility of perpetuating digital divides and missing opportunities to enhance student learning. The AI Task Force recommends DESE establish clear requirements for Ed Prep Programs to blend technology integration, including AI literacy, into their curricula defining specific course content and competency expectations around technology integration, emerging technologies, data privacy, harmful bias recognition, and ethical considerations. Establishing strong partnerships with K-12 schools across the Commonwealth will allow Ed Prep Programs to share research and be certain areas of focus align with current realities and emerging practices. Programs should also explicitly address how emerging technologies, like AI systems, may reinforce stereotypes or omit diverse perspectives, preparing educators to critically evaluate and implement tools in ways that promote equity. These comprehensive requirements can help ensure that new educators enter the profession with the knowledge and skills needed to effectively leverage educational and emerging technologies while promoting equitable learning opportunities.

III.C. INCORPORATE AI LITERACY INTO MASSACHUSETTS CURRICULUM FRAMEWORKS

It is important that students are prepared to enter a connected world that is increasingly more reliant on emerging technologies such as AI. Students need equitable opportunities to develop AI literacy in conjunction with broader digital literacy and computer science knowledge and skills. Without clear guidance on what students need to know and be able to do at each grade level, educators are left to their own perspective in determining how and when to integrate AI literacy. This currently results in students having drastically different experiences from classroom to classroom. The AI Task Force recommends DESE review its curricular frameworks, including but not limited to Digital Literacy and Computer Science, for opportunities to add explicit standards for AI literacy across grade levels and subject areas. This review could be conducted by a diverse team of educators and stakeholders representing varied perspectives and experiences in order to develop standards that reflect the needs of all students across racial, cultural, and socioeconomic backgrounds. The updated frameworks could clearly define AI literacy to include both practical skills for using AI tools and critical understanding of AI's capabilities, limitations, and societal impacts. Additionally, the Computer Science frameworks could include standards focused on how AI is developed and the potential bias inherent in that development. Following the framework update, DESE may then decide to review aligned curriculum materials and lesson plans to support implementation of the new standards, providing educators with concrete resources for teaching AI concepts. By providing a list of evaluated resources, educators can support all students in developing the AI knowledge and skills needed to succeed in an increasingly connected world, while reducing potential gaps in AI literacy across different student populations.



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We extend our gratitude to the AI Task Force members for bringing a wealth of knowledge and perspectives and openness to the process and dialogue. Their thoughtful collaboration and commitment were essential in developing these recommendations. We also thank the educators, students, families, and community members who participated in listening sessions and completed surveys, enhancing this work through their valuable insights. Finally, appreciation goes to the Department of Elementary and Secondary Education's Offices of EdTech and Digital Literacy and Computer Science whose leadership and expertise guided this initiative.

Together, we are moving forward to support safe, ethical, and equitable integration of AI in education focused on enhanced educational outcomes and opportunities for all students across Massachusetts.

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