Kathy Benson 1407 Forest Glen Court Catonsville, Maryland 21228 kbenson@tequity4all.org 3/7/2025

Dear Chairperson and Members of the Committee,

Thank you for the opportunity to testify in support of House Bill 1391, cross filed as Senate Bill 906, "Education - Artificial Intelligence - Guidelines, Professional Development, and Task Force." Artificial Intelligence (AI) is rapidly transforming various sectors, and education is no exception. Al offers immense potential to enhance teaching and learning experiences, but it's crucial to approach its implementation responsibly. As a former software engineer and current computer science educator, I strongly advocate for the passage of HB1391/SB906, which establishes critical Al guidance, professional development, and a robust task force process to ensure Maryland's education system responsibly integrates artificial intelligence.

I support amending the task force to include one representative from the Maryland Center for Computing Education (MCCE), the Computer Science Teacher Association of Maryland (CSTA-MD), and a local institution of higher education (IHE). Information technology (IT) experts typically lead AI guidance. AI Literacy tends to be the domain of educational technology/school library media specialists, but how AI works is the domain of Computer Science experts. The task force must have representation from all domains to cover all these bases.

HB1391/SB906 provides a structured, responsible, and forward-thinking approach to AI in education. TeachAI projects that machine learning jobs will grow by 40% and that there will be over 1 million new jobs by 2027. The skills required for many jobs have changed by 25% since 2015. The skills required by many jobs are expected to change by 65% by 2030.¹ With AI rapidly shaping the workforce, Maryland must ensure its students, teachers, and schools are prepared, protected, and positioned for success. AI has the potential to revolutionize education, offering personalized learning experiences, automating administrative tasks, and providing valuable insights to educators. However, it also raises concerns about data privacy, algorithmic bias, and the potential for AI to replace human interaction in the classroom.

<sup>&</sup>lt;sup>1</sup> <u>https://www.teachai.org/toolkit-presentation</u>

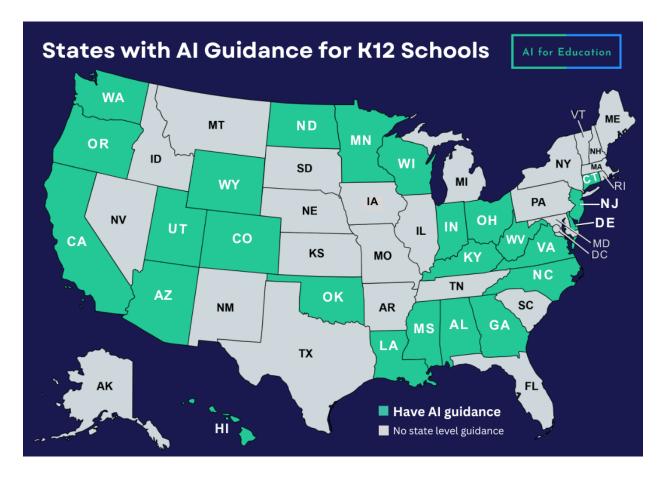
# Why HB1391/SB906 is Essential

We need to prepare all students to understand and navigate the complexities of Al, which can be a catalyst for inclusive, personalized, innovative education. The state and its school systems must be strategic partners in this work.

- Al is Already in Schools: From adaptive learning platforms to instructional
  design assistance, Al is already shaping education. However, the lack of
  clear statewide guidelines means that its implementation is inconsistent and
  potentially inequitable, raising urgent ethical concerns.
- Guidance Ensures Safe, Effective Al Use: HB1391/SB0906 mandates that
  the Maryland State Department of Education (MSDE) create clear,
  evidence-based guidelines on classroom Al use. These guidelines will
  ensure that Al supports—not replaces—teachers while protecting student
  privacy and academic integrity.
- Equity & Access Matter: Without the checks and balances provided by HB1391/SB0906, unchecked AI integration could significantly widen the digital divide. This bill is crucial to ensure that all Maryland students, regardless of their district's resources, can benefit from AI-powered learning tools.

## Al Guidance

HB1391/SB0906 requires MSDE, in consultation with the AI Task Force, to develop guidance that ensures AI tools are safe, ethical, and effective in K-12 classrooms.



Citation: Al for Education

### **Rationale**

### **Rapid AI Adoption Without Oversight**

- Schools and districts are adopting AI tools without standardized policies, leading to inconsistent and potentially harmful implementations.
- **Example:** Some schools ban ChatGPT outright, while others integrate it without teacher training, leading to misuse or overreliance.

## **Equity & Access**

- Al can bridge or widen the digital divide. Wealthier schools may integrate Al-powered tutors, while underfunded schools lack access.
- **For example,** Schools with 1:1 devices can use AI for personalized learning, but students in device-limited districts are left out.

#### **Ethical & Legal Considerations**

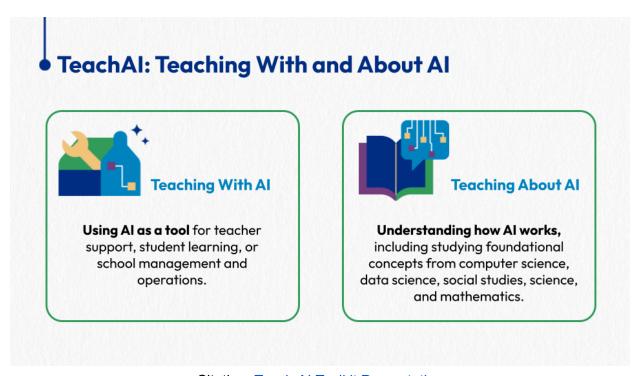
- Al systems can reinforce biases, misuse student data, or infringe on intellectual property rights.
- **Example:** All grading tools have been found to favor specific demographics due to biased training data.

#### What Al Guidance Should Cover

Maryland has created Interim Guidance for State Employees for the Responsible Use of Commercial Generative Artificial Intelligence Tools. MSDE is working on state guidance for educators and an Al Hub. The work is being done through a task force that includes representation from LEA CIOs.

25 states and their departments of education now have <u>official guidance</u> or policy on the use of Al in K12 schools. <u>North Carolina's guidance</u> provides an excellent model. The <u>TeachAl toolkit</u> explains the process of developing guidance.

In addition to AI Literacy (using AI to support learning in all disciplines), the future workforce will demand an increased understanding of how to CREATE with AI (learning about AI). AI literacy may be considered a domain of educational technology, including school library media specialists. Learning ABOUT AI is typically spearheaded by computer science educators.



Citation: Teach Al Toolkit Presentation

#### **Human Oversight**

 To harness AI's potential while mitigating risks, educators should maintain human oversight of AI systems to ensure they are used ethically and effectively.

#### **Privacy**

- Guidelines for AI use in education should align with existing digital privacy laws. Guidance about tools should consider privacy of not only generative AI prompts but also use of information for model training purposes.
- **Example**: Some Al tools collect student data without transparency, leading to FERPA violations. Define what student, teacher, and personally identifiable information (PII) is off-limits to GenAl tools.

#### Bias

As Al becomes more integrated into classrooms, educators must be aware of bias in Al output and take proactive steps to ensure fair, equitable, and critical use of Al-powered tools. Al systems are trained on vast datasets that may contain historical, cultural, or systemic biases, leading to skewed or discriminatory results. The education field must develop clear guidelines, training, and oversight to mitigate these risks.

#### **Intellectual Integrity**

As AI tools become increasingly integrated into education and professional settings, intellectual integrity must be redefined and reinforced to ensure responsible and ethical use of AI-generated content. AI-generated content without modification or critical thought is plagiarism.

## Accessibility

- Tools need to accommodate diverse learners and varying technical skills.
- **Example**: Visually or Hearing Impaired students need to be able to leverage Al tools.

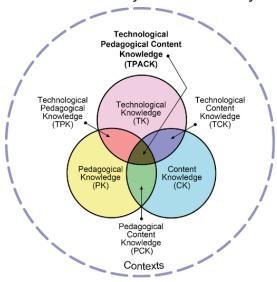
#### Infrastructure & Resources

• Schools need guidance on Al tools. Implementing Al technologies can be expensive, particularly for smaller schools and districts. Unequal access to

- technology and internet connectivity can exacerbate existing educational inequities.
- **Example**: Al-driven tutoring has improved learning outcomes, but only in schools with the funding and infrastructure to support it.

#### **TPACK**

The guidance needs to be focused on more than technology. It should address technology, Pedagogy, and Content Knowledge (TPACK). To harness Al's potential while mitigating risks, educators should maintain human oversight of Al systems to ensure they are used ethically and effectively.

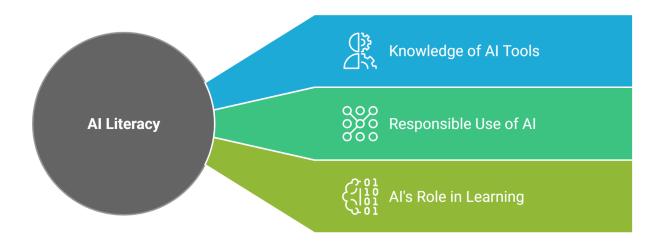


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#### **Students**

Al can support students in numerous ways, but we need to teach and guide students in how to use them productively and responsibly.

#### **Exploring AI Literacy in Education**



#### **Opportunities:**

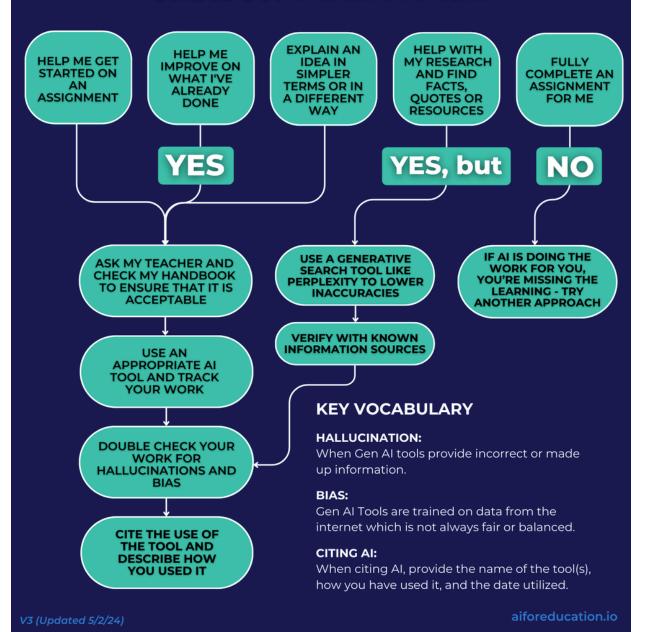
- Personalized Learning: All can analyze student data to tailor learning experiences to individual needs, providing targeted support and resources. Al-powered personalized learning can lead to improved student engagement, achievement, and retention.
- **Intelligent Tutoring Systems:** Al-powered tutoring systems can offer personalized feedback and guidance, helping students learn at their own pace.
- Enhanced Accessibility: All can provide support for students with disabilities, making education more accessible and inclusive.

#### **Cautions**

 To prevent students from becoming overly reliant on AI tools while ensuring they develop critical thinking and writing skills, educators should implement structured, intentional AI integration. Emphasize AI as a Learning Aid, Not a Replacement. Teach students how AI generates responses, including its limitations and biases. Frame AI as a drafting, brainstorming, or feedback tool—not a source of final answers. Al for Education

## A GUIDE FOR STUDENTS: SHOULD I USE AI?

# Why do you want to use an Al Chatbot? I want it to...



Citation: Al for Education

- When students are permitted to use AI:
  - Students will need to fact-check output.
  - Provide guidelines on how students should cite their use of generative AI for their assignments.

#### **Teachers**

#### **Opportunities:**

Al can support educators in numerous ways:

- **Content Creation:** All can assist in creating educational content, such as quizzes, study quides, and interactive simulations.
- Administrative Tasks: All can streamline administrative tasks, such as scheduling, attendance tracking, and data analysis.
- **Increased Efficiency:** All can automate time-consuming tasks, allowing educators to focus on higher-order teaching and learning activities.
- **Data-Driven Insights:** All can analyze student data to provide educators with valuable insights into student learning patterns and needs.

#### Cautions:

- Assessment Considerations:
  - GenAl detectors often produce inaccurate results especially for non-native English speakers.
  - Automatic grading tools can be biased.
- Assess Original Thinking & Process, Not Just Outcomes: Grade idea development, reasoning, and revisions, not just final written pieces. Require students to submit annotated drafts showing their own edits and thought process. Use oral presentations, debates, and in-class writing to assess authentic understanding. Teach reverse engineering: Give AI an answer and ask students to write a better one.

#### **Parents**

• **Transparency:** Clearly communicate how AI is being used in the classroom and ensure students and parents understand its purpose.

#### **Interdisciplinary Collaboration**

- Policymakers, educators, technologists, and ethicists must come together
  to collaborate on Al governance. This is not just a recommendation, but a
  necessity for ensuring that Al is used responsibly and ethically in our
  schools. The Task Force should include a representative from the Maryland
  Center for Computing Education (MCCE), Computer Science Teacher
  Association of Maryland (CSTA-MD), and Institutions of Higher Education
  (IHE). This task force with broader membership will facilitate generating
  guidance that not only addresses technological tools but also content
  knowledge (what should be taught) and pedagogy (how it should be
  taught).
- **Example**: Finland has a national AI strategy includes education, industry, and government collaboration.

# Al Needs Assessment & Accountability

 HB1391/SB906 mandates a statewide Al needs assessment to evaluate school systems' readiness for Al integration. County boards must report annually on their use of Al in instruction, student performance, and compliance with data privacy laws.

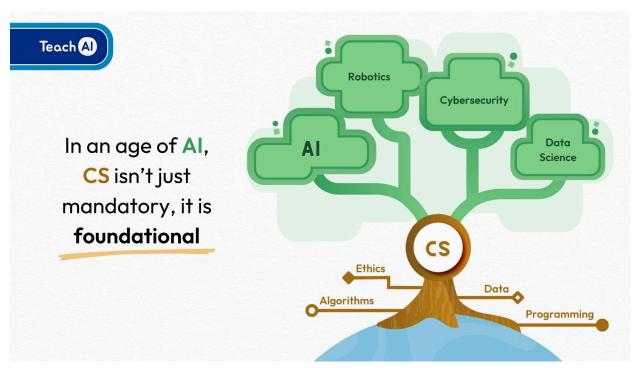
# Workforce Readiness & Career Preparation

- HB1391/SB906 requires the MSDE Career and Technical Education (CTE)
  Committee is required to incorporate Al literacy into workforce readiness
  programs. This will prepare students for Al-driven industries, ensuring
  Maryland remains competitive in the evolving job market and STEM
  economy. It ensures students can create Al solutions rather than just
  consume them.
- **Example**: All is reshaping fields from healthcare to finance—this bill ensures students gain foundational knowledge to enter these fields ethically and competently.

# **Professional Development for Educators**

 HB1391/SB906 funds Al training for teachers and administrators, including courses, webinars, and peer-led training. Training should focus on Al ethics, bias detection, instructional use, and responsible AI integration. MCCE, Washington County and Howard County are already piloting this work. Maryland does not need to reinvent the wheel. MCCE has delivered many workshops on AI and will host a Statewide AI Summit for Educators on June 21, 2025, at the University of Maryland Baltimore County (UMBC).

# Why Computational Thinking & CS Are Foundational



Citation: Teach Al Toolkit Presentation

It is important to understand that in an age of AI, computational thinking (CT) and computer science (CS) education is foundational.

 Al is Built on Computer Science Principles: Without a strong CS foundation, students will struggle to understand Al's logic, bias, and ethical risks. • Teaches Problem-Solving & Ethics: Understanding algorithms empowers students to analyze and challenge biased AI systems.

## Conclusion

I urge you to support HB1391/SB906 and to work toward its swift passage. I support amending the task force to include one representative from the MCCE, the CSTA-MD, and a local institution of higher education (IHE). This robust task force will provide expertise to not only address technology, but also pedagogy and content knowledge.

The future of education depends on our ability to adapt to and leverage new technologies like AI. These measures are essential for ensuring that AI is used responsibly and ethically in our schools. HB1391/SB906 will help maximize AI's benefits while minimizing its potential risks by providing clear guidelines, professional development, and a high-quality interdisciplinary task force.

Thank you for your time and consideration.

Sincerely,

Kathy Benson

Note: Kathy Benson used generative AI as a thought partner for this letter.