

Guidelines to Ensure the Appropriate use of Artificial Intelligence in Educational Settings

Call to Action for Legislators

Artificial intelligence is being leveraged by educators to improve, personalize, and individualize learning to increase student achievement. At the same time, the limitations of current systems have led to numerous potential risks, such as bias, misguidance, and inequity. Given the potential harm that comes from unfettered implementation and utilization of AI-driven systems in education, we recommend legislators consider adopting policies to protect students.

Summary of Issue

It is undeniable that artificial intelligence (AI) technology is revolutionizing services offered in numerous industries including education. While some agencies have begun to address issues of bias and equity arising from the use of AI for medicine, finance, media and business operations, it is imperative that these issues be specifically addressed for use in the education setting.

We advocate for stronger protections relating to the potential harms of biased systems, improper predictive models, and data privacy and protection. The recommendation of additional policy measures goes beyond existing protections outlined in FERPA, CIPA, and COPPA. These current policies do not specifically call out the possible bias or inequities introduced by AI technologies through faulty algorithms and inadequate data sets. It is critical that guidance and oversight be established for institutions and companies engaging in all practices utilizing AI in providing services for students.

Our students require protections through new policies or the expansion of existing ones where there is overlap to include the use of artificial intelligence. A starting place would be the National Education Plan now under revision. The 2017 plan repeatedly addresses student safety and data privacy but does not address AI and the issues arising from the use of machine learning and applying algorithms to data sets. Guidance set forth in this document would pave the way for standards others could follow. We believe algorithmic systems need to be assessed for accuracy, bias, and non-discrimination, evaluated for harms and capacity for abuse, and subject to continuous scrutiny. Compliance will only happen with proper regulation and protections enacted in policy.

*This is a working document

Policy Recommendations

Policy makers should prepare for the inevitable widespread adoption of AI in educational settings while providing guardrails, where required, to limit potential harms.

These policies will need to address:

- Determination of who will use AI and for what purposes.
- Preparation of professionals for AI and technology implementation.
- Protection of students in regard to all possible uses of AI.

Ten Factors to Consider in Designing a Policy:

1. Define AI in terms of Pre-K through 20 educational settings.
2. Set a clear understanding of human-machine collaboration in order to provide appropriate expectations from the technology.
3. Develop an understanding of the educational and social impact of a given tool (e.g. research that demonstrates learning efficacy).
4. Determine a purpose for the use of AI technology in education, understand its limitations, and identify specific predicted outcomes.
5. Assess technology for possible bias based on a variety of users as it intersects race, class, gender, age, and abilities.
6. Define the ethical boundaries of data and algorithmic practices of AI tools (e.g. understanding the data set, transparency of models, a process for sharing findings regarding the volume, variety, velocity, volatility, validity, and veracity of data).
7. Address data privacy, security and ownership.
8. Communicate the implications of AI, including the benefits and concerns, with stakeholders (students, parents, and community members).
9. Balance the need for regulation of AI in education without hampering use of AI altogether and maintaining its positive impacts on industry (both for profit and nonprofit).
10. Provide for transparency around sources of equitable funding for access to AI tools (government, NGOs, foundations, school districts)

References:

[The Institute for Ethical AI in Education](#)

[AI and education: guidance for policy-makers - UNESCO Digital Library](#)

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[Inside BigData - Beyond Volume, Variety and Velocity is the Issue of Big Data Veracity](#)
[AI PLAYBOOK FOR THE U.S. FEDERAL GOVERNMENT](#)

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