Guidance for Developing Policies to Govern the Adoption and Use of Artificial Intelligence in K–12 Schools

CCNETWORK Comprehensive Center Network

REGION 8
Indiana
Michigan
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Overview

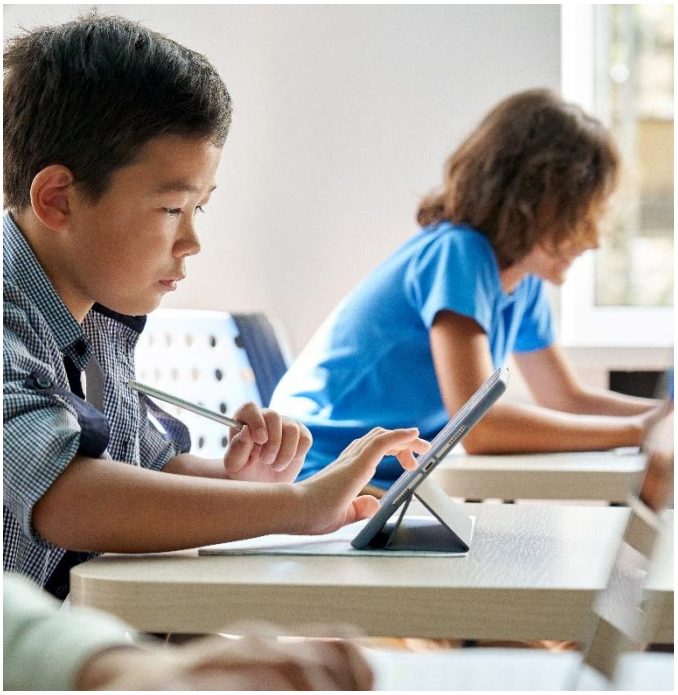
Artificial intelligence (AI) has been making considerable inroads into our everyday lives, and sometimes in ways we have not even noticed. AI applications and resources can be found in our homes, businesses, entertainment venues, and—of course—in our schools. The rapid rate at which AI is being integrated into education and placed in the hands of students, teachers, and other staff has prompted a flurry of action by federal and state education leaders to provide guidance to K–12 educators—guidance that many desperately want.

This document is based on a review of guidance and policy created by states as of April 2024. It includes guidance from a foundational document on the issue, *Artificial Intelligence and the Future of Teaching and Learning: Insights and Recommendations*, from the Office of Educational Technology (OET) at the U.S. Department of Education (2023). The review also covers published state guidance documents from seven state education agencies plus the Michigan Virtual program. The latter is not a state-adopted nor state-developed document but has been endorsed by seven education organizations and includes input from educators in 16 districts in that state.

The term AI is used here as a shortcut to represent what may also be referred to as generative artificial intelligence and the large language models (LLMs) it relies on, along with the resources and tools that are quickly becoming available to users in every industry and at home.

In reviewing the available guidance, it is possible to see the influence of previously released documents. There are some similarities, but several focus on key areas of AI integration relevant to their own state's education priorities that others do not consider. AI and the tools that leverage its capabilities are evolving rapidly—as are the ways educators can interact and incorporate them into their daily practice, whether in the classroom, counselor's offices, transportation or facilities management offices, human resources, and other administrative areas. Due to this, these nascent guidance documents will likely be reviewed and revised over time, as will new documents developed from here on. Perhaps with the foresight that as AI evolves, so will guidance and policies that govern its use, some states have prudently identified their documents as Version 1.0. Additional state education agencies, local education agencies, and schools that subsequently release their own guidance will benefit from these early efforts and likely uncover additional areas to consider in crafting future AI guidance.

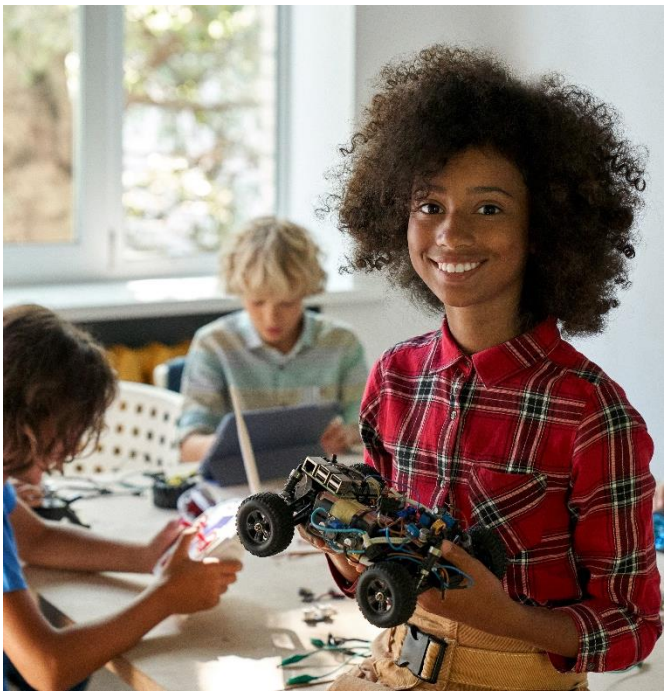
Purpose



The purpose of this document is to learn from published AI guidance and provide a comprehensive set of decision points for education leaders as they create their own guidance documents and responsibly integrate AI into teaching, learning, and school operations. Instead of isolating and trying to determine one or two exemplar documents as a single model, all of the documents reviewed provide some support by generating important considerations for education leaders charged with reviewing and developing AI guidance and policies. By looking at all of the existing documents, a comprehensive list of categories to consider in new AI guidance is presented.

These decision points are not a recipe for AI policy. Instead, they are decisions education leaders may need to grapple with to provide equitable and comprehensive guidance so AI resources are used efficiently, effectively, safely, and securely to enhance teaching, learning, and school operations. Different organizations will have different priorities and focus areas. Some will be farther along in adopting and understanding these resources than others. The list at the end of this document is a reminder of AI integration areas others have considered and which each education organization tasked with creating similar guidance may want to consider. The intent is to provoke potential responses to a common phrase used in instructional coaching, "Have you thought about…?" Hopefully, this document will provide a thorough list of decision points for education leaders to think about to generate the best possible AI guidance documents for their organizations—at least for now; those Version 2.0 documents won't be far off.

Considerations



A list of guidance considerations is at the end of this document. This section provides a brief overview of each of the major considerations and some of the key decision points within each. Most of the decision points are explicitly stated as suggestions in at least one, and often, multiple existing guidance documents. A few have been extrapolated to provide clarity.

Implement strategies to address and advance equity in AI integration.

Several organizations that released guidance did so through the lens of promoting equity, which is a cultural norm that threads through much of their work. With AI being a component of the larger organizational culture, they suggest that any AI resources that are adopted and used in their organizations address concerns in two key areas related to equity: 1) ensuring the tools and resources that are adopted provide output that is fair, accurate, and free of bias, and 2) providing equitable access to these AI resources to all who need them, especially students.

AI resources have already obtained a reputation for discriminatory bias in the datasets they use and the algorithms that interact with that data. Early large language models (LLMs) and AI tools were not always developed with considerations for an equitable representation of multiple viewpoints or with input from varied populations. Early algorithms are also human-generated and may rely on the biases and stereotypical views of those who created them, even if done so inadvertently.a Confounding the matter for schools is that early LLMs were not developed for education. AI resources promise profound financial implications for businesses. The education sector—where equity is often a concern—was not the first target audience for making profit off of these tools.

Many see AI tools as an opportunity to promote equitable access to high-quality resources and learning opportunities for all students. In order to achieve this vision, these resources need to be available to and appropriate for all who need them. Just as with providing student devices and internet access, considerations should be given to how students can continue to access AI resources off campus and the safest ways for them to do so.

Equitable considerations may be an overarching theme or could be considered a thread through many of the considerations made when developing guidance for AI adoption and integration. These questions are ones that education leaders should return to at each step of the process, from early exploration, then initial planning, to providing resources and training, and the ongoing review of new and emerging resources and best practices. The Washington Office of Superintendent of Public Instruction (WA OSPI, 2024) further notes that a component of equity education leaders should consider is building "an ethical framework of funding to support policies" that encourage the equitable access of AI resources to all who need them (p. 6).

Connect to existing policy and guidelines.

Across most of the guidance, there was a consistent position that AI policy, procedures, and guidelines do not have to be separate from existing policy and guidelines. Education organizations already have a variety of policies that govern the use of tools and resources— digital or not—that might be adapted to support the identification and integration of worthwhile AI resources. If AI is seen as a new and emerging technology, most education organizations have Acceptable Use Policies (AUP) or Responsible Use Policies (RUP) that already support the adoption of new and emerging technologies. If AI is seen as an information resource and information creation tool, many organizations already have guidelines about honoring intellectual property, avoiding plagiarism, and citing intellectual work. Most organizations recommended starting with existing policy and guidelines and determining how AI may or may not already be supported.

Outside of local and state policy and guidelines, many organizations identified the clear need to ensure that AI resources and tools reflect the requirements of state and national policies that impact education, such as the Family Educational Rights and Privacy Act (FERPA), Children's Internet Protection Act (CIPA), and the Children's Online Privacy Protection Act (COPPA), along with other student privacy laws. Anyone who uses AI tools within an educational organization, including administrative staff, should also understand how to meet the requirements of these laws while using them. A few common examples are ensuring no personally identifiable information (PII) is entered into AI resources, restricting the use of AI tools to students 13 years and older, and seeking appropriate parent/guardian permission for students to use AI resources. These examples feature procedures educators should follow when using many digital resources, not just AI tools.

Several organizations see AI resources as a means to provide personalized or differentiated learning to students who need it, including those who need accommodations. Using these resources to meet the unique needs of individual learners is a component of equity, as mentioned earlier. Education leaders should ensure AI resources support the Individuals with Disabilities Education Act (IDEA) and Section 504 of the Rehabilitation Act and are available to students and staff who would

benefit from them. These resources may also support students with language needs and those who would benefit from enrichment.

There is a clear throughline across the documents that suggests that all program, product, and process decisions be focused on positively impacting teaching and learning. Multiple organizations agree that AI policy and guidance, like all program and resource decisions, be connected to the vision, goals, and priorities of a school, district, and/or state.

Authors of the *Planning Guide for AI* (Michigan Virtual, n.d.) add that leadership teams should consider collaborative planning between district staff and boards of education so boards are fully aware of how AI resources are being used in schools in case they are required to create or sanction AI policy. The Virginia Department of Education (n.d.) encourages including institutions of higher education as members of a larger learning network who can help identify and provide support to K–12 educators for identifying and incorporating best practices related to AI policy and practice.

Establish a cross-department AI leadership group.

Writing coherent and relevant guidelines requires a strong understanding of the topic at hand, and to many educators, AI is a new field of study. It's also important to understand that AI is not just the purview of those who work in information and educational technology departments. AI resources are showing up in *every* department and office in every education organization, not just the classroom. It is imperative that a systemic approach is used to help all staff, students, parents, and related stakeholders understand how AI resources work, their strengths and pitfalls, and how they appear and can be applied within every context. These are components of **AI literacy** and they are important for children and adults alike. Several organizations suggest a cross-departmental leadership group be established to explore current and future AI use throughout the organization.

In addition to building a baseline of common language and understanding, this leadership group may want to determine the level of readiness for adopting AI resources across different settings within the organization. There is both a technical readiness (material capacity) as well as a human capacity dimension that will help determine where the organization is in terms of adopting AI or expanding their current AI uses. Explorations into readiness may also uncover concerns or even resistance to incorporating AI tools and resources.

A good starting point for working groups is to explore existing systems to identify AI tools and resources that are already being used—some of which users may not realize *are* AI. These could be AI bots that support transportation decisions; recommend curriculum resources including, educational website and learning management system (LMS) options; run routine administrative tasks; and others. An inventory of existing resources should also include a determination of how accurate the outcomes are. For

example, are intelligent tutoring or adaptive learning systems truly adapting to the needs of students, or are they just progressing based on how students have answered two or three questions? What's the strength of their adaptability?

A potential strength often mentioned in the AI literature is the capacity for AI tools and resources to streamline or automate teaching administrative tasks so that teachers have more time for interacting with students. The same can be applied to information technology and business operations, not just teaching and learning. While student learning is the primary goal of schools, it takes a variety of systems outside of the classroom to make that happen, like getting students to school and events on time with district-provided transportation, ensuring healthy and nutritious meals are available for students, and maintaining a variety of financial and student records that must be kept secure with access limited to only those who need them. AI has potential to improve the effectiveness and efficiency of many departments, not just teaching and learning.

The foundation of LLMs are large datasets. The staff and students who interact with those datasets add to them and even hone their algorithms. Education organizations have long been encouraged to become "data-driven" institutions and AI resources can expand on that capacity to bring real-time data to more stakeholders, including students and parents. Providing guidance on the use of data throughout the organization is a key consideration for an AI leadership group.

Talk with vendors about their AI products and review AI tools routinely.

As AI tools and resources have made their way into the education space, vendors should now be prepared to address educators' concerns about ensuring these tools are equitable, accurate, and fair. Ask vendors to provide evidence for how they avoid discriminatory bias in their datasets and algorithms.

The OET in the U.S. Department of Education (2023) recommends AI vendors should go further and provide resources that are "inspectable, explainable, overridable" (p. 34). Humans are a key component when using AI, and if an AI resources recommends a student for a particular task, resource, or activity, teachers have to be able to know whether that recommendation is accurate and should be able to explain that recommendation to others, like administrators, parents, and the students themselves. Some AI models recognize patterns in data but can't explain how it arrived at its suggested conclusion. In order for teachers to evaluate the appropriateness and accuracy of decisions made by AI, teachers need to be able to inspect those decisions and those models need to be explainable. If the teacher finds that recommendations from an AI model are not appropriate, they also need the ability to override those recommendations in order to provide optimal learning opportunities for their students.

One guidance document suggested providing questions education leaders can ask AI providers about their products. While none of the documents provided a list of recommendations, the following questions are a starting point curated from across the guidance documents reviewed:

- What data, especially student data, are collected and how?
- How are data kept secure when collected, stored, transmitted, and managed? (This often involves some form of encryption.)
- What regular audits and access controls are provided to increase security measures?
- Who owns the data generated or processed by the resource?
- How long is data retained in your system? Does this align with district, state, or organizational policy?
- Can users opt out or delete their data?
- How do any third-party vendors you rely on for your services adhere to security standards?

Ask vendors to verify that their resources are age appropriate. Some states suggest students under the age of 13 should not interact with AI resources on their own. Following federal guidelines, parents or guardians should provide consent for their children of any age to use any resources that collect student data. This should already be a component of safe and appropriate technology use in every school.

Again, because many of these resources are intended to support teaching and learning, ask vendors how they have incorporated best practices into how people learn (e.g., using learning theory and/or knowledge from practice) to support learners at various levels of development, literacy, and competency. Also identify supports for learners of diverse needs, including those who may require accommodations or language supports.

In the flood of recent AI developments, another question to consider is whether an AI tool was built for educational audiences only. A few school districts have already launched their own student-specific AI chatbots and other tools that are designed to mitigate many of the concerns about bias, accuracy, and fairness. Tools such as these will likely become more widely available for schools, districts, and states. Leadership teams should consider whether they would prefer this type of environment for their students over resources developed for a general audience.

The OET (2003) also makes the recommendation that educators collaborate with vendors and consider how their educators, staff, and learners can actively contribute to the improvement of AI resources. These are the actual users of the products, and insights from their experiences could be valuable to any vendor that wants to improve the effectiveness of a tool for wider audiences.

Generate AI guidance/principles/policies.

Eventually, an AI leadership group's work will lead to the drafting of AI guidance, principles, or policies. What the group generates will be influenced by the group's understanding, priorities, and perceptions; the stage of AI understanding and adoption an organization is at; and what the organization's constituents need most. Policies have consequences if not followed, but guidance and principles usually do not. Most of the documents reviewed leaned on the side of providing guidance and principles, but certainly some policies will be necessary for ensuring ethical and legal implementation over time.

A strong underlying philosophy across many of the guidance documents is the important role humans play in the adoption and implementation of AI resources, often referring to this as keeping "humans in the center" or "in the loop." This is supported by an earlier review of educational technology use (Darling-Hammond et al., 2014) that found the most important variable in the effectiveness of a digital learning ecosystem is the teacher. While intelligent tutoring systems and adaptive curricula are currently supported by AI, these programs can still be improved upon and it is often the teacher who notes when a learner is struggling or isn't meeting expectations with a given resource. Again, this is where inspectable, explainable, and overridable AI models are important.

While developing initial guidance, gather input from various stakeholders, including teachers and other staff, students, families, and other relevant groups. Consider leveraging existing opportunities to interact with stakeholder groups through

- routine meetings (e.g., professional learning communities, department- and grade-level meetings, parent-teacher organization meetings, open houses, and others),
- surveys (whether digital or analog), and
- newsletters and other correspondence.

Consider how you can establish a feedback loop to keep these interested parties involved in the evolution of your guidance or policies.

In their guidance document, the West Virginia Department of Education (WVDE, 2004) provides a number of examples of AI use in different classroom settings as well as a list of prohibited use of AI tools. Both examples may be helpful for novice users who want to better understand how AI tools are applicable in the classroom while also addressing concerns.

AI detection tools originally seemed promising as a means to identify plagiarism or academic integrity issues in student assignments. But in the guidance review, several organizations recommend *against* the use of AI detection tools, which have been shown to be inconsistent, flawed, and fooled by some students (North Carolina Department of Public Instruction, 2024; WVDE, 2024). These tools have been shown to miss AI-generated

content and to generate "false positives"—original student work was flagged as being generated by AI. Others note that AI detection tools can be biased against multilingual or English learners (WA OSPI, 2024). The consequences and fallout of falsely accusing students is one that any educational organization should want to avoid. If considering the use of AI detection tools, they should not be the only form of evaluation for student work. These tools should undergo the same scrutiny and review described in regard to demonstrating accuracy, fairness, and lack of discriminatory bias.

Remember, because most educational organizations already have policies related to acceptable or responsible technology use and academic integrity, it is possible AI guidance can be adapted to or incorporated into these documents. It may not be necessary to develop a free-standing AI policy or guidance document. In fact, incorporating AI guidance into existing technology guidance can actually reduce the stigma that AI resources are different or unique, when they could instead be seen as a component of the evolving state of digital and information literacy and digital citizenship.

Create and implement an AI plan based on guidelines/principles/policies.

While AI guidance and policy may be worked into existing guidance documents, multiple organizations suggested organizations have a plan for AI integration with clearly measurable goals connected to any AI policies. A plan is not a static document but should be a living series of actions through which different staff routinely assess and research current AI use, and how it is meeting identified goals. Any new and emerging AI resources should be thoroughly researched and evaluated before sharing with students or staff.

Teachers may require support in developing AI policies and procedures at the classroom level. Classroom policies and guidelines should reflect policies and procedures adopted at the school or district level. Some common classroom considerations are guidance on the AI resources students can use and in what setting: whether during assignments, in preparation for assessments, or even during assessments. They might be used to support brainstorming activities, provide multiple viewpoints during research, as organizational tools, or for presentation of student ideas.

As staff members learn about or identify promising new AI resources, consider whether these can be tested in a pilot program before wider dissemination. As teachers and others identify best practices and exemplary resources, consider a means to share those with relevant staff, students, and families.

Provide ongoing professional learning and support for educators.

Most staff, students, and families will need to build and continually hone their AI literacy. As noted under the section on establishing a leadership group, AI literacy can include developing an understanding

- of how LLMs and the tools that access them work,
- that bias and inaccuracies can exist and how to mitigate those,
- of what data is collected and how it is used in an LLM.

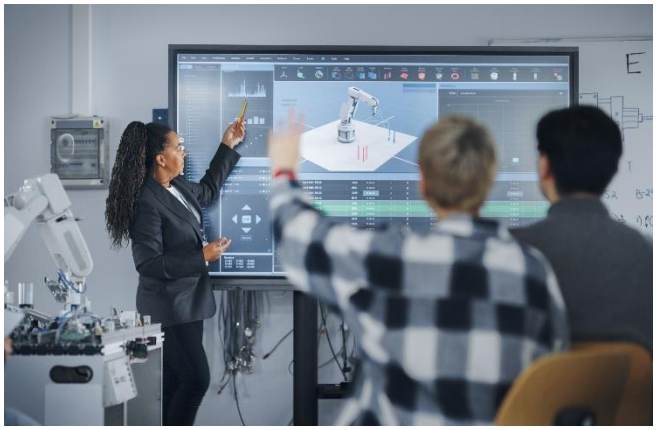
A critical component of AI literacy is understanding what **personally identifiable information (PII)** is and to *never* enter it into an AI tool. Teachers may not realize that batch uploading student names and emails into an online interface may expose that PII to an AI resource. More than ever, keeping PII safe and secure requires vigilance on everyone's part.

There is a sense of optimism expressed in many of the documents that AI holds the potential to transform education by empowering teachers and learners regardless of their age or the subject area being explored. Many teachers often learn to use a new technology by using it to do something they already know how to do. Many organizations express excitement for moving beyond what teachers do to something new, something more effective and efficient—going so far as to reconceive the roles of teachers and learners. This is obviously something that will require ongoing support for educators, and not all educators will be ready for this change.

Such optimism and excitement has been associated with a variety of tools and resources that have found their way into teaching and learning across many decades, going back to early uses of radio, television, and satellite, not to mention computers, the internet, mobile devices, and more. At the heart of this optimism has been the intent to make learning opportunities more relevant and focused on the needs of individual students—and many educators have been successful in doing so. Some terms used to describe this type of learning include personalized, individualized, differentiated, and student-centered. These terms mean different things to different educators and are not used consistently, but at their core is an underlying philosophy that one-size-fits-all learning activities do not actually fit "all" and that we can do better meeting the specific, individual needs of learners—*all* learners. Many of the organizations whose documents were reviewed seem to share the belief that AI holds the potential to help educators find, adapt, or develop these types of learning opportunities more efficiently and effectively. Those educators who have already embraced these philosophies and pedagogical approaches may be well suited to leveraging AI in their instruction.

The literature on AI includes many concerns about plagiarism and maintaining academic integrity. Several of the documents reviewed encourage an open exploration about what plagiarism, copyright, and intellectual property mean in the age of AI. Teachers should consider how AI-generated content may itself need to be cited or attributed, both in their own work and in the work students create. Teachers may need support to rethink or shift assessments away from low-level recall and identification tasks and even some composition or content-generation tasks that AI tools can complete in a few seconds with simple prompts. Some of these tools can generate

content in different media, including images and video, not just text. Several documents note that organizations will want staff who understand how to use these tools legally and ethically. So, preparing students to understand and use AI will undoubtedly become an important component in readying students to become college and career ready.



Several organizations are interested in the potential for AI resources to provide more effective and efficient formative assessment opportunities. AI resources that are truly adaptive can not only support students as they build knowledge and practice skills but can also collect and report data on student experiences and progress for multiple stakeholders, including students and their parents.

Just as many educators believe AI has the potential to personalize or individualize instruction for students, it holds the potential to do so for all learners, including educators themselves. Educators might benefit from more personalized approaches to professional development supported by AI resources. Certainly, all educators can benefit from learning how to use AI resources to expedite administrative tasks and automate their workflow so they are spending less time preparing for instruction and more time interacting with learners. Regardless of where or what educators are using AI for in support of teaching, learning, and school operations, consider ways to allow them to practice with them, collaborate with the AI resources, and share their experiences.

Provide ongoing professional learning and support for all staff.

Because AI resources will become embedded in every department across a school and district, several organizations emphasize the importance for *all* staff to develop AI literacy, especially in the context of the unique needs of their positions. While more detail is provided on helping teachers and students develop AI literacy in the documents reviewed, some similar considerations can be extrapolated as suggestions to support other staff members.

All staff should already be aware of best practices for safeguarding PII, but there is additional sensitive data that should be kept secure. Human resource departments collect ample personal information about all staff, and financial information can be managed in multiple departments. Extra diligence may be required to keep student records secure in an age of Student Information Systems (SIS) and LMS that make the collection, analysis, and reporting of data easier—but also susceptible to compromise if shared in an AI resource.

Just as with educators, other staff should learn and share how to expedite tasks and automate processes within their own departments and job settings. Again, AI might provide personalized professional learning opportunities for different staff members. And, of course, all staff can benefit from the opportunity to explore AI resources in a safe setting, collaborating with others, and sharing their experiences.

Educate and establish ongoing communication with students, parents, and the community.

Consider ways to engage with family and community members, especially students, as decisions about AI are made. Family and community members may not fully understand what AI is and how it works, nor the potential it has to support teaching, learning, and school operations. Some may have concerns or apprehension about anyone using AI and an open, ongoing feedback loop between the organization and its constituents is important for making the best decisions about AI guidance or policy. Again, most educators are used to public concerns about new and emerging technology in schools, and educational institutions may already have communication opportunities or procedures they can leverage to continue the discussion around AI use.

Parents, especially, will certainly want to know how their child's data and PII are being used, stored, shared, and kept secure. Parents should provide consent for their children to use AI tools, as they should for any technology resources that collect student data. Parents and others may benefit from examples of how AI is being used successfully to support teaching, learning, and school operations—perhaps created and shared by students. Some of the organizations whose documents were reviewed suggest that training be provided to help parents understand the AI resources that are being used with students.

Teach students to safely, legally, and ethically interact with AI resources.

School is where children learn how to prepare for their lives. All of our lives now interact with AI in some fashion or another. If students are to prepare for lives in which AI becomes more prevalent, schools are an excellent place to help them develop their AI literacy and to continue to evaluate and grow that literacy as AI evolves over their lifetime. Schools have always prepared students for both academic as well as other learning outcomes necessary for their careers after school, especially when it comes to digital literacy, information and media literacy, and digital citizenship. The phrase "safely, legally, and ethically" will be familiar to those who know the International Society for Technology in Education's *ISTE Standards for Students* as a component of the Digital Citizen standard. AI is an extension of the resources students can use to support their learning, so many schools will have structures in place (or that can be augmented) to incorporate AI literacy development.

Several organizations suggest a hands-on approach where students learn *about* AI by actively learning *with* AI, which is a common approach for many educational technologies. However, AI does have some unique aspects that should be explicitly addressed, modeled, and practiced with students. One of those is being able to effectively form **prompts** that query a LLM and generate content. The guidance document from the North Carolina Department of Public Instruction (2024) provides a variety of helpful tips and strategies students and adults can use to develop their AI literacy, including the CRAFT Prompting Framework, in which CRAFT stands for Context, Role, Audience, Format, and Task & Tone. Students can start with tools that scaffold prompting but should eventually become skilled at creating effective prompts using strategies such as the CRAFT Framework, and then revising their prompts if they are not generating the information they need.

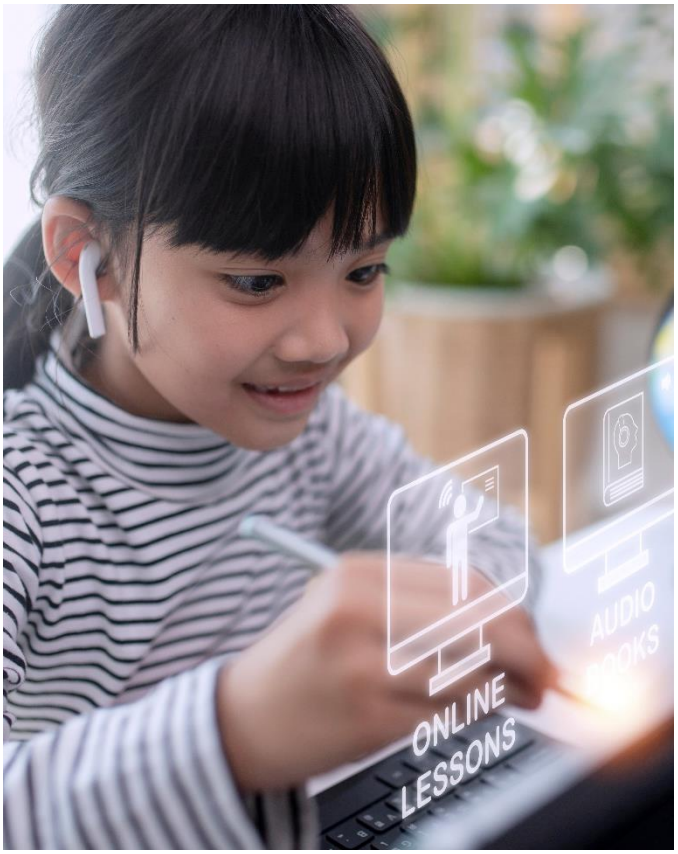
Students should also be taught how to evaluate the accuracy of information being generated by AI tools, an extension of what many schools are already teaching students when using other resources. As noted, some information generated by AI tools can contain bias—generated from the data it draws from as well as in the algorithms that mine it and create output. AI tools can also suffer from presenting false information as accurate, something referred to as a **hallucination,** which can be difficult for novice learners to identify.

As AI resources become more prevalent in the development of text and media content in all industries, not just schools, new forms of licensing and attribution are likely to be adopted. Educators can adopt these new licensing formats, just as the education community has adopted Creative Common licensing, so that students can attribute information generated by AI to the resources they used and to delineate their own unique ideas and contributions. Many common style guides already provide examples for attributing content generated by AI. As students become old enough to use AI tools on their own, emphasize the need to keep PII safe and secure as an extension of how that is addressed with other digital resources.

A couple of organizations suggest students can explore the social and societal impact of AI, which will likely be an ongoing topic as AI evolves across students' lifetimes. And while most of the organizations whose documents were reviewed emphasized the need for a cross-curricular approach to developing AI literacy in students, two states (California Department of Education, 2023; West Virginia Department of Education, 2024) do make the connection to teaching AI literacy within the context of computer science standards. Many states have adopted or adapted the standards from the Computer Science Teachers Association (2017) that are organized into five domains of study across all grade levels: computing systems, networks and the internet, data and analysis, algorithms and programming, and impacts of computing. They certainly have connections to understanding and using AI, but considerations can also be given as to how AI literacy can be developed in every classroom as a component of digital literacy and digital citizenship.

Summary

As noted, these suggestions are based on a review of current guidance and policy documents and are intended to support education leaders at the school, district, state, and other education organizations charged with developing their own forms of guidance on the integration of AI resources into teaching, learning, and school operations. This is a summary of published guidance as of April 2024. As the education community learns more about AI integration and available AI resources evolve, policy and guidance will also likely need to grow and change. Not all considerations need to be addressed by every team; however, hopefully every team will find guidance they may not have yet considered but find useful.



Guidance Considerations

This list of considerations is presented as a job aid to planning teams. Choose the topics and considerations that are most relevant to your organization and its current capacity to understand and integrate AI.

Implement strategies to address and advance equity in AI integration.

- Consider how AI resources that are adopted mitigate issues related to bias, fairness, inaccuracy, and intellectual property in the datasets they rely on and algorithms they use.
- Ensure access to relevant and age-appropriate AI resources and tools are provided for all students. Consider how equitable access extends beyond school campuses.
- Ensure an ethical framework of funding.

Connect to existing policy and guidelines.

- Reflect the requirements of state and national student data privacy policies (such as FERPA, CIPA, COPPA, and student data privacy laws).

- Support IDEA, Section 504, and other policies that support the diverse needs of learners.
- Connect to state/district/school vision, goals, and priorities for teaching and learning.
- Engage in collaborative planning between districts and boards of education.
- Partner with institutions of higher education to keep abreast of how AI resources and uses evolve.

Establish a cross-department AI leadership group.

- Build a baseline of common language and understanding.
- Assess your organization's technical and human capacity to adopt AI and accompanying guidance and policies.
- Evaluate AI systems currently in use in *all* departments and determine the accuracy of their output.
- Identify and address potential concerns from teachers, staff, families, community members, and others who influence your program.
- Address legal risks and challenges through risk assessment and mitigation.
- Consider how AI may streamline or optimize technology and business operations, not just teaching and learning.
- Strengthen data governance practices by improving data analysis and reporting at the classroom, school, district, and state level.

Talk with vendors about AI products and review AI tools on an ongoing basis.

- Have AI vendors demonstrate or provide evidence for how precise and accurate their LLMs and algorithms are.
- AI vendors should be able to explain steps taken to avoid discriminatory bias and promote transparency for how AI tools use datasets.
- Know how algorithms make decisions and avoid bias.
- Determine whether the AI model is inspectable, explainable, and overridable, and if not—why.
- Demonstrate how all AI resources comply with district, state, and federal regulations.
- Ask and understand how and what data is collected, stored, transmitted, and managed securely, including forms of encryption during transfer and storage.

- Determine data security measures from all AI vendors, including regular audits and access controls, so only authorized individuals can access sensitive data.
- Clarify who owns the data generated or processed by AI.
- Know how long data is retained and determine if it aligns with your district, state, or organizational policy
- Know whether users can opt out or delete their data.
- Have vendors demonstrate how they ensure third-party vendors who might provide data or other components meet security standards.
- Verify AI resources are age appropriate.
- Have vendors demonstrate how best practices in how people learn (e.g., learning theory and knowledge from practice) are incorporated into AI resources that support teaching and learning.
- Ensure AI resources are accessible to all students of an appropriate age.
- Determine whether the resource is built for education audiences only, or whether you want this type of focus in a resource that is more general.
- Identify ways that *your* educators, staff, and learners can contribute to the improvement of future AI-enabled resources by providing feedback, insights, and other information.

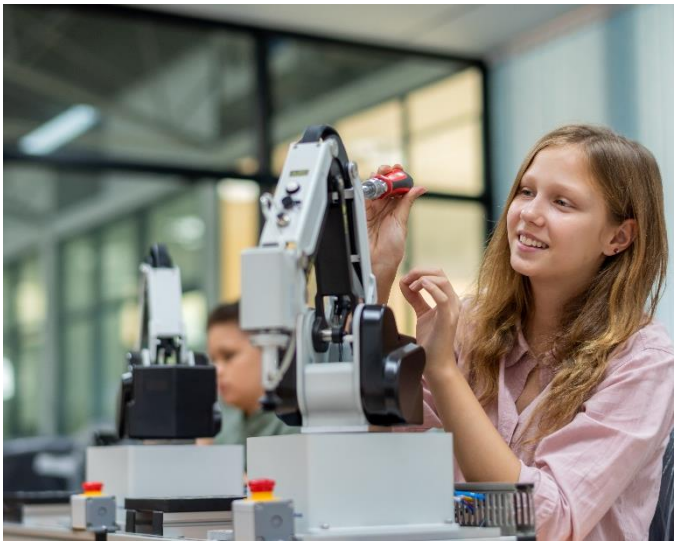
Generate AI guidance/principles/policies.

- Keep humans at the center (in the loop); teachers are essential to guide and facilitate learning with AI.
- Routinely gather and review feedback from teachers and staff, families, and other relevant stakeholder groups.
- Consider whether you will identify prohibited use of AI tools.
- Identify considerations and acceptable use for students under 13.
- Avoid the use of AI detection tools (e.g., for plagiarism).

Create and Implement an AI plan based on guidelines/principles/policies.

- Identify evidence to measure goals of your plan aligned to your guidance or policies.
- Conduct ongoing assessment and research to inform the evolution of your AI plan.
- Research and evaluate new AI tools before sharing with students or others.
- Help teachers develop AI policies and procedures at the classroom level.

- Consider pilot programs for promising resources.
- Spotlight successes and elevate best practices in ALL areas of teaching, learning, and school operations.



Provide ongoing professional learning and support for all educators.

- Develop educator AI literacy in areas such as understanding how LLMs work, that bias and inaccuracies exist and how to mitigate those, and how their data and student data is used in LLMs.
- Help teachers and administrators develop the skills to keep PII safe when using AI tools.
- Educators should explore and reflect on how AI might transform teaching and learning and the ways it can empower teachers and learners in all curricula and subject areas.
- Help teachers design and implement instruction that incorporates human-centered design principles or otherwise personalizing or differentiating learning for the unique needs of individual learners.
- Ensure teachers understand how to incorporate AI resources to accommodate the needs of *all* students, including learners with language needs, disabilities, and those who may benefit from enrichment.
- Rethink plagiarism and academic integrity in the age of AI (e.g., the role of Creative Commons licensing or otherwise how to cite AI-generated work).
- Help teachers rethink/shift assessments.
- Integrate formative assessments that analyze data; provide feedback.
- Consider how AI might personalize professional development.
- Facilitate opportunities for educators to learn how to expedite administrative tasks and automate workflow to free up time for interactions with learners.
- Provide opportunities for educators to explore AI resources and strategies, collaborate with them, and to share their experiences using them.

Provide ongoing professional learning and support for all other staff.

- Develop AI literacy within the context of staff operations, duties, and tools.
- Help all staff understand how to keep PII and other sensitive data, such as financial information and student records, safe when using AI tools.
- Staff in different departments should explore and reflect on how AI might transform business operations by expediting administrative tasks and automating workflow.
- Consider how AI might be used to personalize professional development for staff in all departments.
- Provide opportunities for all staff to explore AI resources and strategies relevant to their context, collaborate with them, and to share their experiences using them.

Educate and establish ongoing communication with students, parents, and the community.

- Help families understand how students are using AI and how their data is used, stored, shared, and kept secure.
- Provide resources for parents and others to better understand the role of AI in teaching, learning, and school operations.
- Provide training for parents to understand and use available AI resources that support student learning and record management.

Teach students to safely, legally, and ethically interact with AI resources.

- Develop student AI literacy such as understanding how LLMs work, that bias and inaccuracies exist and how to mitigate those, and how their data is used in an LLM.
- Teach digital, media, and information literacy skills and digital citizenship skills so that students learn to use AI safely, legally, and ethically.
- Have students learn *about* AI by actively learning *with* AI.
- Provide instruction, modeling, and practice so students learn how to effectively communicate with LLMs through effective prompting.
- Provide resources and teach strategies so students know how to evaluate AI for accuracy (e.g., identifying hallucinations) and potential bias.
- Teach and model how students should cite and/or attribute AI they have used in their work.
- Teach students how to keep their information/data secure.
- Connect AI literacy to computer science education.
- Explore the social and societal impacts of AI with students.

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About the Author

Dr. John Ross's career has focused on providing high-quality technical assistance and professional learning and leadership development for school, district, and state educators. His primary areas of expertise include instructional design, online and blended learning, instructional coaching, and planning for and implementing educational technology. He has engaged in a wide range of professional learning and technical assistance projects focused on disseminating evidence-based resources and promising practices using a combination of in-person, online, and blended environments and pedagogies to educators across the country.

Dr. Ross is coauthor of the first and only textbook to address the International Society for Technology in Education's *ISTE Standards for Education*, now in its third edition. His book, *Online Professional Development: Design, Deliver, Succeed!*, was selected as book of the month for July 2011 by Learning Forward and was a publisher's bestseller in its first year of publication. In 2004, Dr. Ross launched a corporate online professional development environment reaching more than 10,000 educators across five states in the form of online courses, webcasts, webinars, podcasts, and online learning communities. The program was shown to significantly improve the skills and knowledge of course participants and was found to be more cost effective than face-to-face delivery. Beginning in 2020, Dr. Ross developed curricula and a support system for student tech teams in North Carolina and has been a lead consultant in helping districts across the country establish their own student tech teams.

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