Human-Centered AI

Guidance for K–12 Public Schools

Version 3.0

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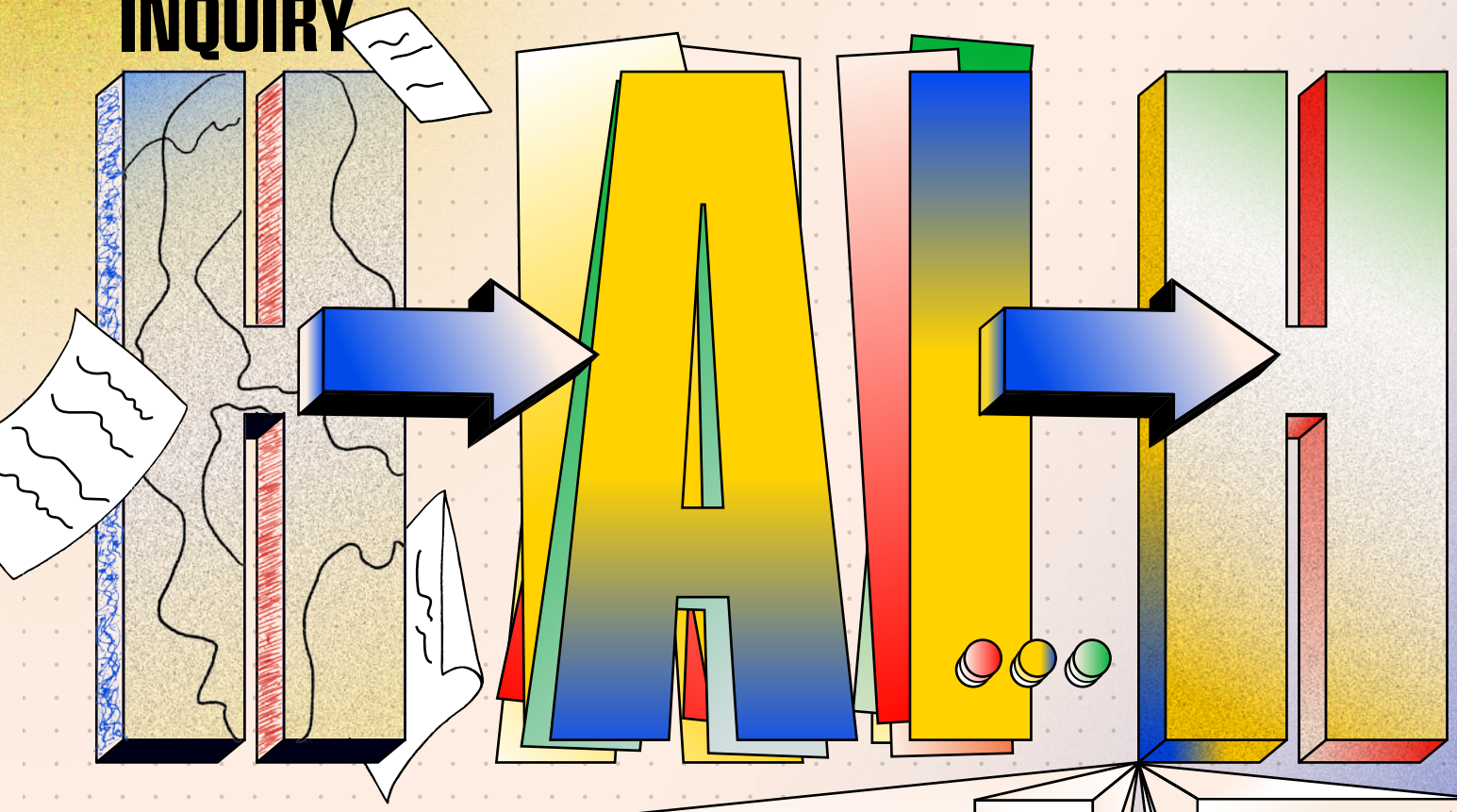
Updates: Ethical Considerations for AI:
A Framework for Responsible Use

Human Inquiry
HAH
Human Empowerment

Washington Office of Superintendent of
PUBLIC INSTRUCTION

HUMAN INQUIRY



Our Philosophy: Embracing a Human-Centered Approach

In K–12 education, uses of AI should always start with human inquiry and always end with human reflection, human insight, and human empowerment. This model, abbreviated as "Human→AI→Human" or "H→AI→H" throughout this guidance, offers pathways for educators, school district administrators, and students to engage with AI responsibly, ethically, and safely. https://youtu.be/m9Fkw9PWPiM

HUMAN EMPOWERMENT

Watch a video from State Superintendent Chris Reykdal

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Message from State Superintendent Chris Reykdal

In the last year, Washington's teachers delivered over a billion hours of instruction to our students – and technology held an important role in that delivery, as it has every year. Particularly during the pandemic, our schools took on the massive effort of establishing a technological infrastructure that allowed for each and every student and teacher to have their own device. Artificial Intelligence (AI) is emerging rapidly into the various aspects of teaching, learning, and school district operations. Washington state is remarkably positioned to integrate AI in our classrooms and campuses across our state.

It is with great excitement and appropriate caution that we distribute guidance to schools and districts now. Like many of the innovations in technology that came before it, the world of AI is evolving at lightning speed. Also like many of the technology innovations that came before it, young people are accessing these tools and wanting to use them in their daily lives. In other words, AI is here and slowing down isn't an option. Students and educators are already engaging with AI, but the key question remains: How will we use it in a way that empowers critical thinking? As this technology revolutionizes industries, communities, sciences, and workplaces, our responsibility is to prepare students and educators to use these tools in ways that are responsible, ethical, and safe.

Schools across Washington are already pioneering efforts to integrate AI into classrooms. With a full embrace of AI, Washington's public education system will be at the forefront of innovation and excellence. This initiative is not just about staying current with technology—it's about enriching the learning journey of every student and empowering our educators with the most effective tools available.

I encourage all stakeholders—caregivers, families, teachers, education partners, and community members—to join us in this groundbreaking journey. Your insights and participation are invaluable as we chart this path and learn together. Our state leads by example, setting a standard for how technology and human ingenuity can work hand in hand to prepare the next generation of leaders for success in careers, jobs, and communities that don't yet exist.

Our commitment is not just to integrate AI into the classroom; it's to do so with a vision that places our educators and students at the center of this digital revolution with a priority for human inquiry that uses AI for production, but never as the final thought, product, or paper. AI is a powerful tool, but it only enhances learning if students and educators embrace an "H→AI→H" approach. Start with human inquiry, see what AI produces, and **always** close with human reflection, human edits, and human understanding of what was produced. It is imperative that we empower our teachers to utilize AI as a responsible and transformative tool. This means providing educators with the necessary resources, training, and support to incorporate these technologies in ways that enhance their instruction and, more importantly, nurture our students' critical thinking.

Together, we will create an educational environment where technology supports, but where human control and inquiry lead to boundless learning, and where our children are ready to lead in a world augmented by artificial intelligence.

Chris Reykdal
Superintendent of Public Instruction

Section 1

Human Inquiry → AI → Human Empowerment

Human-Centered AI Guidance for K–12 Public Schools

Building AI Foundations: A Human-Centered Approach

This document introduces a human-centered approach to using artificial intelligence (AI) in educational contexts. In Washington, educators and education leaders are encouraged to use the "Human inquiry → AI → Human empowerment" framework to guide their decision-making and policy creation. This document details the structure of this framework, as well as provides definitions, lists guiding principles and values, and offers considerations for educators and education leaders who are creating human-centered AI learning environments and policies.

Executive Summary

Artificial Intelligence (AI) is emerging rapidly across industries—including K–12 education. To support educators and education leaders in equitable and inclusive uses of AI in classrooms across Washington, the Office of Superintendent of Public Instruction (OSPI) presents this initial guidance, which emphasizes a human-centered approach to using this ever-evolving tool.

In This Guidance

- **Understanding AI:** Provides context about the emergence of AI and a framework for public education systems to address it.
- **Definitions:** Explains what generative AI (or "Gen AI") is and is not, and identifies potential opportunities and risks for using AI in public education.
- **Principles and Values:** Lists the guiding principles that OSPI supports, including that uses of AI in public education should be equitable and inclusive, safe and secure, understandable, and purposeful and beneficial.
- **Guidance:** Provides considerations for creating human-centered AI learning environments, implementing AI in student learning, and protecting sensitive and confidential data.
- **Policy:** Details key components of AI usage policies, including acceptable use policies and requiring both human input and review of AI outputs.
- **Academic Integrity and AI Assistance:** Indicates academically honest ways to use AI, how to cite AI, and when using AI could be classified as plagiarism.
- **Professional Development:** Lists the topics and subjects on which local education agencies (LEAs) should provide training.

How to Use This Guidance

OSPI's guidance on integrating AI into Washington classrooms is designed to be used by stakeholders across public education:

- **School district administrators** should integrate this guidance into their district and school policies on AI use.
- **Educators** should use this guidance for recommendations on implementing AI in their classrooms.
- **Students and families** can refer to this guidance for suggested uses of AI and to gain a deeper understanding of Washington's statewide approach to and understanding of AI.

This guidance is designed to evolve with advances in AI and adapt to the unique needs of school communities across Washington. With the transformative power that AI presents, the overarching goal of this guidance is to empower Washington's students to lead in the world they are helping to create.

Understanding Artificial Intelligence

The integration of Artificial Intelligence (AI) in education starts with the fundamental understanding that AI is not a replacement for human intelligence or humanitarian presence in education. According to UNESCO, AI in education is expected to be a $6 billion worldwide industry in 2024[1] with estimates of growth reaching $19.9 billion by 2028[2]. LinkedIn's Economic Graph Research Institute estimates that, by 2030, the skill sets needed for jobs will change by 65%, affecting not just tech, but all industries[3]. Corporate entities are moving fast to meet the need and demand for products that streamline the delivery of education, but not all products are the same. It is the responsibility of the education community to carefully and strategically understand how these products work, what data is collected, and where information is sourced.

While AI is an emerging innovation in education, Local Education Agencies (LEAs) can utilize and build on existing policies that are based on educational integrity, student safety, and proven instructional practices. In conversation, AI tools are often discussed as a holistic, outside influence on education, yet policy regarding AI should not be separately written. Key facets of these tools already apply to concerns such as student data privacy, plagiarism, cyberbullying, and digital literacy, and can be called out within existing and corresponding policies.

Whether updating policies, adopting software, delivering instruction, or analyzing outputs, the vital role each of us plays in understanding what AI is and is not cannot be overemphasized. The first step in AI integration is realizing the opportunity for AI to transform the way we access and use information as we learn and work in our world today, as well as into the future. The next step is to ensure all guidance, policies, systems, and instructional practices are grounded on ethical, equitable, and inclusive uses of AI throughout our Washington communities. LEAs must ensure educational and technology standards are applied to meet the needs of all students so that AI tools enhance education. Finally, state and local policymakers and education leaders must act to build an ethical framework of funding to support policies around every student that embraces each student's unique abilities and allows them to use existing and emerging AI tools in a safe learning environment.

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[1] United Nations Educational, Scientific and Cultural Organization. (2021). *AI and education: guidance for policy-makers.* https://doi.org/10.54675/PCSP7350

[2] International Market Analysis Research and Consulting Group. (2023). *Size, Share and Trends.* https://www.imarcgroup.com/ai-in-education-market

[3] LinkedIn Economic Graph. (2023). *Preparing the Workforce for Generative AI: Insights and Implications.* https://economicgraph.linkedin.com/content/dam/me/economicgraph/en-us/PDF/preparing-the-workforce-for-generative-ai.pdf

AI in Education: A Human-Centered Approach

A human-centered AI learning environment is one that prioritizes the needs, abilities, and experiences of students, educators, and administrators. An educational leader can support a human-centered learning environment by considering the following:

- **Developing students' AI literacy** by helping them understand the concepts, applications, and implications of AI in various domains, and empowering them to use AI as a tool for learning and problem-solving.
- **Ensuring ethical, equitable, and safe use of AI** by protecting the privacy and security of data, addressing potential biases and harms, and promoting digital citizenship and responsibility.
- **Providing professional development** and support for educators by helping them integrate AI into their pedagogy, curriculum, and assessment, and by facilitating their collaboration and innovation with AI.
- **Applying human-centered design principles** to the development and implementation of AI solutions, such as involving stakeholders in the design process, testing and iterating the solutions, and evaluating the impact and outcomes.
- **Aligning AI solutions with the best practices and principles of learning,** such as supporting learner agency, fostering collaboration, enhancing feedback, and promoting critical thinking.

Human Inquiry
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Definitions: What AI Is and What It Is Not

Generative Artificial Intelligence (also abbreviated as Gen AI) refers to software tools modeled on large amounts of data to produce text, images, videos, or other digital artifacts. Common, general-purpose examples include a wide range of software known for text generation through Large Language Models (LLMs) and image generation. Tools more tailored to an educational setting include personal AI tutoring programs, virtual assistants, and software with the capability to generate lesson plans within seconds or grade tasks in real-time.

As with all new tools and technologies, it is important to understand the tool itself in order to use it responsibly. Generative AI has a place in the classroom when educators and students remain at the center of instruction and learning.

Generative AI is...	**Generative AI is not...**
... a means to augment teaching and learning.	... a replacement for student development.
... already embedded into many technologies, as is AI more broadly speaking.	... something that can plausibly be avoided or "turned off."
... permeated with flaws such as algorithmic bias that must be considered when utilized.	... a source of unquestionable, factual information.
... a product of companies led by teams of humans with their own values, agendas, limitations, bias, and organizational needs.	... produced in a vacuum free of societal influence.
... an algorithm that enables users to generate new content based on a pre-trained Large Language Model.	... a sentient being with untethered superhuman capabilities. ... a replacement for highly qualified educators.

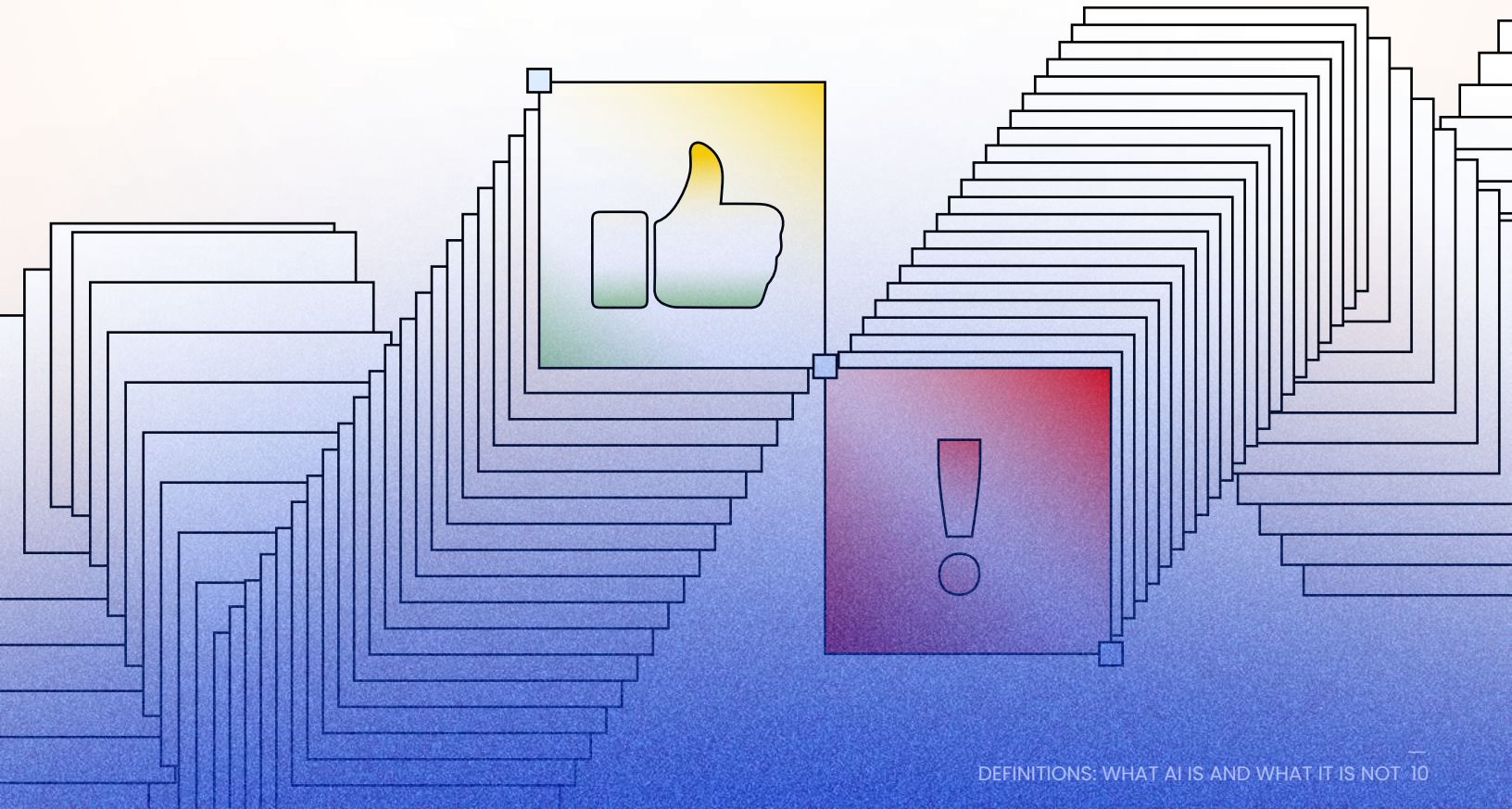
Potential Opportunities for Using AI in Education

- Personalize learning and feedback in real time
- Lesson plan and assessment design with customized planning for differentiation
- Translation between languages
- Develop critical thinking through human input, data output, and elevated human analysis
- Aid in creativity, simulation, and skill development
- Streamline operational and administrative functions

Potential Risks That Need to Be Mitigated When Using AI in Education

- Increasing and/or creating inequitable learning environments
- Unauthorized access to protected user information and unauthorized data collection
- Perpetuating institutional and systemic biases
- Plagiarism and academic dishonesty
- Over-relying on technology and undermining the importance of human intelligence in education

Artificial Intelligence tools provide opportunities, benefits, and potential risks. It is the responsibility of every parent/guardian, policymaker, teacher, administrator, and support staff member to ensure that the use of this transformative new technology and its future is regularly reviewed to ensure equity of access, data privacy, and safe and ethical usage are maintained at all levels. It is equally critical that LEAs embrace and teach students what AI is and isn't and how to use AI technologies to enhance learning – not prevent students from developing critical skills needed to graduate with technological literacy.



Principles and Values

The National Institute of Standards and Technology (NIST) AI Risk Management Framework[4] outlines guiding principles regarding the trustworthiness of systems that use AI, referenced in Washington Technology Solutions' (WaTech's) own guidelines[5]. Similarly, the TeachAI Toolkit[6] outlines principles for the use of AI in education. With these resources as foundations, OSPI supports the following principles and values for the use of AI in education in Washington:

- **New Level of Education:** Artificial Intelligence brings a new level of hope and opportunity to the delivery of education in Washington. The onset of technological tools using AI provides a new way for educators to think about how we, as humans, learn, create, and process information.
- **Equitable and Inclusive:** All students should have access to AI tools which are inclusively designed with all students in mind.
- **Safe and Secure:** Students should not be put at further risk by using AI nor should their personally identifying information be unlawfully shared.
- **Consistent and Compliant:** AI tools should be consistent in their expected capabilities and meet the needs of the education system.
- **Accountable and Transparent:** The companies partnering with schools to provide AI tools should be accountable for their products, just as schools and LEAs should be accountable for student use of AI.
- **Interpretable and Understood:** Though many AI systems are black boxes (too mechanically complex to be human interpretable), at a practical level students and educators should be literate in how AI works and why it produces the results that it does.
- **Purposeful and Beneficial:** All use of AI should ultimately provide a positive experience with intentional use in teaching and learning.
- **Human and Machine:** AI should aid in (not replace) decision-making, creativity, learning, development, growth, and productivity.
- **Continuous Learning and Development:** AI has permeated society faster than technologies of the past and it is essential that Washington educators, technology specialists, and partners in school services provide access to AI tools, while continuing to engage in conversations to learn how to effectively manage and develop the role AI plays in shaping the future of education.

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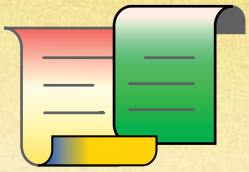
[4] National Institute of Standards and Technology. (2023). *Artificial Intelligence Risk Management Framework (AI RMF 1.0).* U.S. Department of Commerce. https://nvlpubs.nist.gov/nistpubs/ai/NIST.AI.100-1.pdf

[5] Washington Technical Solutions. (2023). *Interim Guidelines for Purposeful and Responsible Use of Generative Artificial Intelligence.* https://watech.wa.gov/sites/default/files/2023-09/State%2520Agency%2520Generative%2520AI%2520Guidelines%25208-7-23%2520.pdf

[6] TeachAI. (2023). *AI Guidance for Schools Toolkit.* https://www.teachai.org/toolkit

Guidance



A Human-Centered Approach to AI

A human-centered AI learning environment always starts with human inputs and inquiry, and always concludes with human reflection and edits. It should prioritize the needs, abilities, and experiences of students, teachers, and administrators. An education leader can support a human-centered learning environment by considering the following:

- **Developing students' AI literacy** by helping them understand the concepts, applications, and implications of AI in various domains, and empowering them to use AI as a tool for learning and problem-solving.
- **Ensuring ethical, equitable, and safe use of AI** by protecting the privacy and security of data, addressing potential biases and harms, and promoting digital citizenship and responsibility.
- **Providing professional development** and support for teachers by helping them integrate AI into their pedagogy, curriculum, and assessment, and by facilitating their collaboration and innovation with AI.
- **Applying human-centered design principles** to the development and implementation of AI solutions, such as involving stakeholders in the design process, testing and iterating the solutions, and evaluating the impact and outcomes.
- **Aligning AI solutions with the best practices and principles of learning,** such as supporting student agency, fostering collaboration, enhancing feedback, and promoting critical thinking.
- **Avoiding sole reliance on the use of "AI detection" tools** in checking for student plagiarism. These tools often use data that is biased against students who are multilingual/English language learners.

Implementing AI in Student Learning

When integrating AI into student learning, it's important to empower students in how and to what degree AI is utilized in their learning journey. By doing so, students can actively participate in shaping their educational experience with AI.

- Co-create and share an AI decision-making rubric with students (example rubric).
- Support students in taking a human-centered approach to using AI.
- Empower students in leveraging AI in scaffolding understanding, feedback, and reflection.
- Support students in critically thinking about the role of AI within their learning journey and within their preparation for college, career, and life.
- Empower students receiving special education services to use AI to personalize and increase their access to learning.
- Integrate ethics and critical thinking activities that align with grade-level and subject-level instruction.
- Use AI for differentiation and assessment, including intelligent tutoring systems that allow text to speech, translation, personalized learning, and inquiry-based learning.
- Prepare students for jobs of the future, including those in career and technical education (CTE) programs, by partnering with industry to update and integrate learning standards.

Sensitive and Confidential Data

Ensure that your LEA AI use complies with student/personal privacy and data protection laws. Be aware of and follow any age restrictions for the use of all AI tools and resources.

- Before sharing private data, ensure that the AI tool meets the following requirements:
  - Family Education Rights and Privacy Act (FERPA) requires that schools not disclose personal identifying information of a minor or eligible student without express written consent of the parent or eligible student.
  - Children's Online Privacy Protection Act (COPPA) requires schools to obtain parental consent before allowing students under 13 to use online services that collect, use, or disclose personal information.
  - Children's Internet Protection Act (CIPA) requires that schools implement an internet safety policy that includes protective measures to block or filter access to obscene or harmful content.
- Have a clear understanding of your data collection processes. Update policies to include the use of and considerations for using AI.
- Give users options to opt-out or delete their data if they want.

Policy

AI policies must promote equitable and inclusive access to AI. Education policymakers must focus on ensuring the use of AI increases the public good, with emphasis on empowering students who are members of communities that have been historically underserved. It is important that policies, by design, enhance a human-centered approach to pedagogy and learning, and respects ethical norms and standards. AI policy and use should be geared to improving learning for every student, empowering teachers, and strengthening learning management systems.

Building Human-Centered AI Policies

Incorporate the need for human intelligence and responsibility into AI usage policies. All AI use should start, and end, with human insight.

- **Responsible Use Policy:** Known as an acceptable use policy (AUP) or technology use policy, this describes what any person authorized to utilize the district's technology system may do and not do. It describes the terms and conditions for educational institutions and should be updated to include the safe and appropriate use of AI tools. (A separate AI AUP is not needed.)
- **AI Inquiry and Input Review:** Require human input of data with clear mandates that staff and students should never input personal, sensitive, or confidential data, including any data related to student education records, into any AI system without first ensuring that the system meets FERPA, COPPA, and CIPA requirements. Emphasize the need for review prior to finalizing any information into a system that learns from data entered.
- **Embrace the Use of Data and the Evaluation of AI Output:** Invest in systems that create streamlined opportunities for staff and students to enter information efficiently and safely, allow them to improve instruction, and draw connections to better understand student thinking and learning.
- **AI Output Review:** AI users should review and critically assess outputs from AI tools before sharing or publicizing results, including in the classroom. Staff and students should not rely exclusively on AI-generated content without fact-checking and evaluating results. Ultimately, it is up to human users to determine how AI information is shared and used.
    - **Bias and Misinformation:** AI-generated content is based on datasets or data models that may contain biases, false information, or other inaccuracies. AI systems do not have the ability to think or verify accuracy. Therefore, verifying AI results to ensure the source is credible must occur before considering an AI output in academic work.
    - **Safety and Respect:** Users must never use AI tools to create misleading or inappropriate content, take someone's likeness without permission, or harm humans or the community at large. (Note: This may also be added to a student code of conduct or bullying/cyberbullying/harassment policy.)

Updates for Existing Policies

- **Data Collection:** Parents, guardians, and students must be informed of specific data collection activities or potential risk, where applicable, with consent required. All AI-driven data collection must adhere to local data protection regulations, best practices, and community standards.
- **Third-Party AI Tools:** The district's approved list of AI software and tools should always be reviewed and updated. Unauthorized AI software and tools (including updates) might not adhere to the district's data privacy standards and practices.
- **Personal Information:** Staff and students should never input personal, sensitive, or confidential data into any AI system without prior parental or guardian authorization, including any data related to student education records. Personnel must adhere to the FERPA, COPPA, and CIPA when entering information.

Academic Integrity and AI Assistance[7]

- **Assessments:** Teachers are encouraged to allow students to use AI tools as a personal tutor or studying buddy to prepare for assessments. When students are completing exams or quizzes, it should be at the teacher's discretion to determine whether an AI tool is used, and it should be explicitly stated whether this is allowed.
- **Assignments:** Teachers should have the responsibility of clarifying appropriate or inappropriate uses of AI tools when students are completing assignments. Teachers might allow the limited use of generative AI on entire assignments, parts of assignments, or as a brainstorming tool. Teachers should be encouraged to articulate why they do or do not allow its use in other assignments or parts of assignments.
- **Bias and Critical Thinking:** All users of AI software should review and evaluate AI output for accuracy and potential bias. Students must develop the critical thinking skills needed to successfully use and navigate the world of AI. Limitations of AI systems and the data used to develop AI content can, and sometimes do, amplify human bias. Use caution and human review prior to using AI outputs in classrooms, publications, data analysis, etc.
- **Citations, Disclosures, and Attributions:** AI-generated content is considered plagiarism, unless appropriately cited in assignments or publications; any use must be referenced. Instruction should emphasize the importance of ethical use of AI and the role of using sources in assignments.
- The following resources provide a sample of how to appropriately cite the use of AI in any publication or assignment:
  - MLA Style - Generative AI
  - APA Style - ChatGPT
  - Chicago Style - Generative AI
- **Plagiarism:** Staff and students should be encouraged to use AI tools for brainstorming, creative stimulations, or preliminary research. Using AI tools to generate answers, stories, essays, or other publications, and/or complete assignments without proper citation, is plagiarism.
- **Use of AI Detection Tools:** Software companies that claim products can detect content developed by another AI tool, or its own AI tool, are currently not reliable and should not be used as the sole way to determine whether cheating and plagiarism have occurred.

[7] Adapted from TeachAI. (2023). *AI Guidance for Schools Toolkit.* https://www.teachai.org/toolkit

Section 2

Human Inquiry → AI → Human Empowerment

Human-Centered AI Guidance for K–12 Public Schools

Implementing AI: A Practical Guide for the Classroom

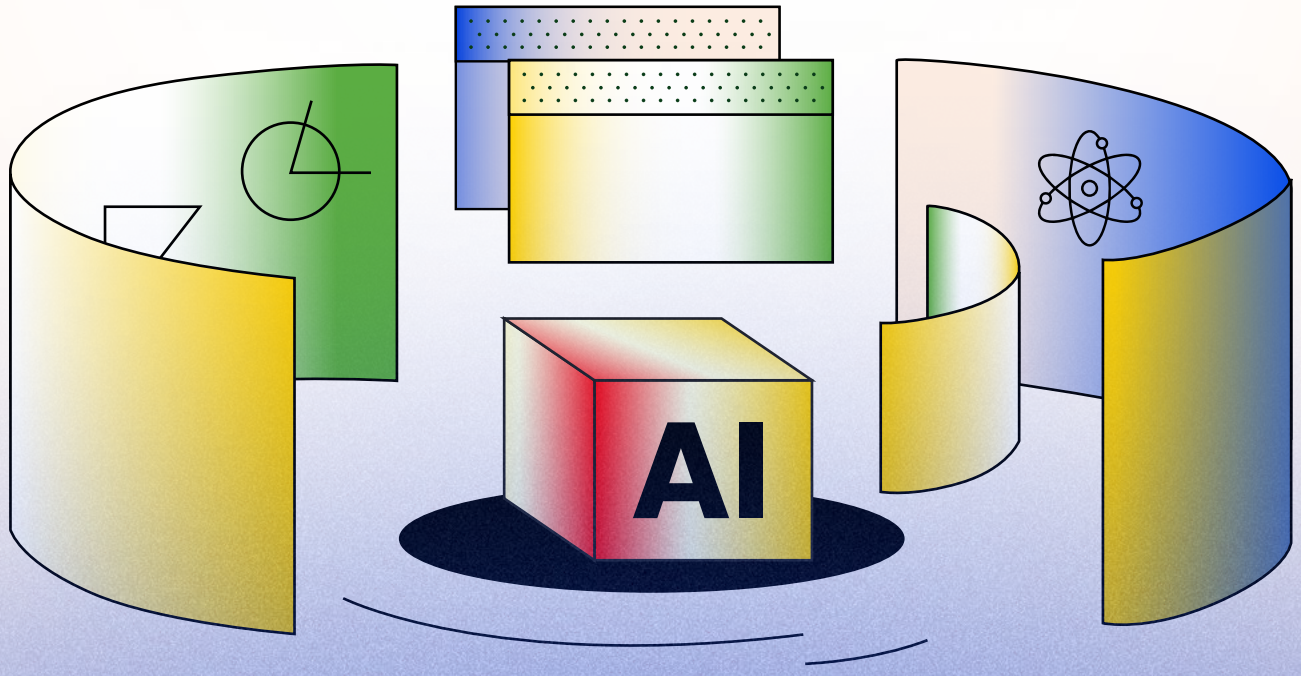
Building on the "Human inquiry → AI → Human empowerment" framework, this document explains how to integrate artificial intelligence into the classroom. It includes tools to determine the level of AI use in various classroom assignments, differentiation for AI uses across grade levels and subject areas, and example policies.

Human Inquiry
H→AI→H
Human Empowerment

Introduction

Implementing AI: Classroom & Student Considerations outlines a comprehensive approach for integrating Artificial Intelligence (AI) into K-12 education, with a focus on maintaining a human-centered instructional framework. It explains how the H → AI → H (Human Inquiry, AI Use, Human Empowerment) methodology can foster personalized learning experiences that cater to individual student needs, including those with disabilities. This document emphasizes the essential role of educators in guiding AI integration. It also addresses considerations across various grade levels, the importance of equity in AI access, and the development of critical thinking skills when using AI.

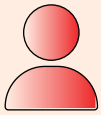
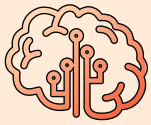
OSPI's hope is that this implementation guidance assists school leaders and educators in navigating the complexities of AI integration into teaching and learning environments. It highlights the importance of a strategic approach to the adoption of AI tools, ensuring that technology enhances rather than replaces human interaction and pedagogical principles. By detailing best practices for embedding AI within curriculum design, and student engagement strategies, it aims to maximize the educational benefits of AI. Furthermore, this guidance underscores the necessity of continuous professional development for teachers, equipping them with the knowledge and skills to effectively implement AI technologies. It also advocates for inclusive participation in AI-related activities, ensuring that all students, regardless of their background, can benefit from the transformative potential of AI in education.



Guidance for Integrating AI in Education: A Human-Centered Approach

5 Step Scaffolding Scale for Students

The following 5 step implementation framework can be a practical tool to help students understand the various ways and levels at which AI can support their learning journey. This framework, designed to categorize AI integration from basic support to advanced interactive learning, serves as a roadmap for students to visualize how AI technologies can be progressively utilized in their education. Starting with foundational AI assistance, such as personalized study aids, the scale moves through increasing levels of complexity, including collaborative problem-solving wth AI and culminating in creative projects that blend AI insights with human creativity. By introducing this scale in the classroom, educators can guide students through each level, encouraging them to explore and experiment with AI tools that match their current learning needs and aspirations. This approach not only supports the understanding of AI for students but also empowers them to take control of their learning, recognizing AI as a valuable ally that can be tailored to support their educational goals across a variety of activities, from enhancing study habits to facilitating innovative project work.

Level 1 **No AI Assistance**	**Level 2** **AI -Assisted Brainstorming**	**Level 3** **AI-Supported Drafting**	**Level 4** **AI-Collaborative Creation**	**Level 5** **AI as Co-Creator**
				Human Inquiry HAH Human Empowerment
No AI tools are used at any point. Students rely solely on their knowledge and skills.	AI tools can help generate ideas. Final content must be created by the student without direct AI input. AI assistance must be cited.	AI can help with drafting initial versions. The final version must be significantly revised by the student. Clear distinction between AI input and student's contributions.	AI-generated content can be included. Student must critically evaluate and edit AI contributions. AI usage must be transparent and cited.	Extensive use of AI in content creation. Student provides a rationale for AI use and ensures original thought. Work adheres to academic integrity with proper citations.

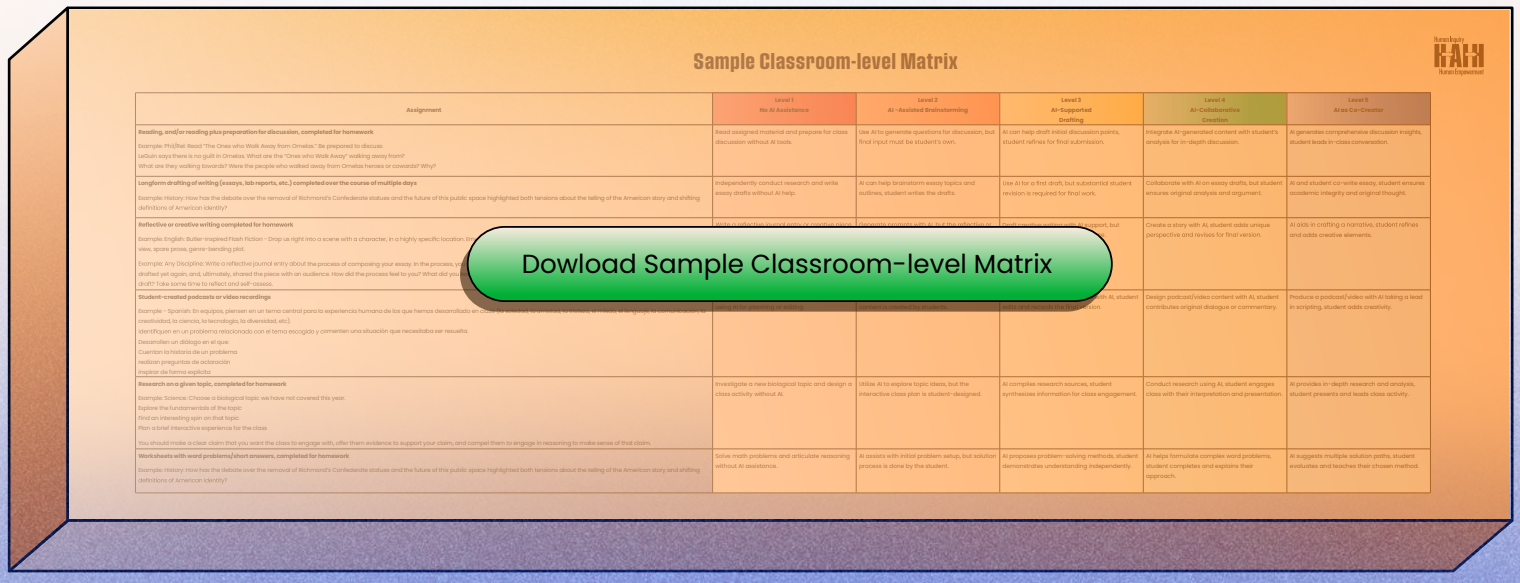
Dowload 5 Step Scaffolding Scale

Essential Role of the Educator

Educators play a crucial role in the integration of Artificial Intelligence (AI) within classroom environments, focusing on a human-centered approach to AI usage, as illustrated by the OSPI's adoption of the H→AI→H (Human Input → AI → Human Empowerment) framework. By grounding their instruction in a philosophy that begins with human inquiry and culminates in human empowerment, educators are encouraged to weave AI into the fabric of learning in a way that respects and uplifts the human dimension of education. This approach not only navigates the complexities of integrating AI into teaching and learning but also underscores the educators' indispensable role in moderating the influence of AI, ensuring that it augments rather than replaces the nuanced processes of human teaching and learning. Through this initiative, Washington champions a forward-thinking stance on educational innovation, spotlighting the educator's essential contribution to harnessing AI as a tool for enhancing educational outcomes while safeguarding ethical standards and promoting inclusivity.

Example AI Assignment Scaffolding Matrix for Educators

The AI Scaffolding Example Matrix is designed as a resource to help teachers integrate AI tools into their assignments in a way that enhances learning outcomes and student engagement. This rubric provides a structured approach for incorporating AI at various levels of complexity and for different educational purposes, ranging from basic understanding and application of AI tools to more advanced analysis and creation tasks using AI technologies. Teachers can use and adapt this rubric to carefully plan and scaffold assignments, ensuring that students not only engage with AI as a subject matter but also apply AI tools to facilitate their learning process. This approach encourages students to critically assess the role and impact of AI in their assignments while progressively building their skills in navigating AI tools. By aligning assignment objectives with the rubric's criteria, educators can provide a clear framework for students, guiding them through a graduated learning path from introductory exposure to AI to proficient use and understanding of AI's capabilities and limitations in various contexts. Educators are encouraged to create a copy of this matrix and adapt and update it as needed to fit the needs of their classroom and students.



AI Considerations Across K-12

Teaching AI across the K–12 spectrum is crucial for preparing students for a future where AI literacy is a fundamental skill. As children grow, their encounters with AI in daily life and the classroom will shape their understanding of technology and its implications. Introducing AI at an age-appropriate pace ensures students develop critical thinking skills alongside their technical abilities. Educators are key in guiding students through the ethical, practical, and innovative uses of AI, ensuring that as they mature, they are not only proficient in using AI but also in understanding its impact on society and individual identity.

Elementary School Students

"Artificial Intelligence" importantly includes the term "artificial." Understanding AI is predicated on understanding that AI is not sentient, but that can be difficult for young kids to discern as virtual assistants like Amazon Alexa and Apple's Siri are designed to engage with users in a human-like fashion. Furthermore, many children under the age of 13 have access to these technologies and social media platforms – even though there may be usage policies in place prohibiting children from using these tools. Because young children using these tools may be exposed to the same risks as teenagers and adolescents, educators should also be aware of the considerations listed below for middle and high school students.

Elementary educators have tools available to mitigate the risks associated with young children using tools that come with AI features. Interactive tools like Google's Quick, Draw! or Instrument Playground can be fun ways to engage with AI-based technology and bridge foundational understanding about how the tools work. When educators guide students in asking questions of and submitting prompts to large language models, students can receive answers while avoiding potentially inappropriate content. Categorizing the tools kids are already familiar with as AI can be a great starting point to build toward deeper conversations down the road.

Middle and High School Students

Middle school is a time of significant development for students. As learners, middle school students develop curiosity and critical thinking skills while engaging with challenging subjects. AI tools can complement this developmental stage by engaging students in critically thinking about content and how they can leverage AI tools within their own personal learning journey. Students can analyze output generated by a large language model to discern what flaws the model or even the model's argument may have.

As students progress through high school, they may pursue more advanced studies about how AI is incorporated into society, industry, and policy. Knowledge of AI is increasingly becoming a sought-after skill in workplaces across a variety of fields. Digital literacy, including deeper understanding of the technical and ethical aspects of AI, is an important skill for all students to learn as they consider their post-secondary pathways.

Framework for Student Critical Thinking about AI

Utilizing the SHIFT framework with middle and high school students offers a structured approach to developing critical thinking skills, particularly in the context of leveraging AI tools in their work. By starting with curiosity, students are encouraged to explore AI's potential and limitations, fostering a questioning attitude toward technology. Honing in on specific details allows them to understand the intricacies and implications of AI applications, encouraging deeper learning. Identifying the context helps students recognize the relevance and impact of AI in various situations, promoting awareness of its societal and ethical dimensions. Framing issues from new perspectives encourages creativity and problem-solving skills, while discussing what's missing challenges students to identify gaps in AI capabilities, leading to a more comprehensive understanding of technology's role and limitations. This holistic approach not only enhances their cognitive abilities but also prepares them for responsible and informed use of AI in their future endeavors.

SHIFT Framework	Statement	Question to Consider
S	Start your curiosity engine	What intrigues me about the output AI gives me?
H	Hone in on a detail	What specific details did AI get right or wrong and how do I know?
I	Identify your Context	How does AI fit into the bigger picture of my work?
F	Frame it from a new perspective	Can I think of a different perspective that AI could help me uncover?
T	Talk about what's missing	What limitations or challenges of AI should I consider?

Policy Samples

What follows are samples of policy frameworks that serve as valuable starting points for LEAs to consider when creating their own internal policies. These samples illuminate approaches to harnessing AI's potential while addressing ethical, safety, and privacy considerations inherent in its use. By examining these templates, LEAs can gain insights into the balance between innovation and responsibility, ensuring that the deployment of AI technologies enriches the educational landscape in a manner that is both effective and respectful of the rights and welfare of all stakeholders.

This section aims to equip leaders and educators with the knowledge and inspiration needed to craft comprehensive policies that align with their unique contexts and educational objectives. It is also strongly recommended that LEAs visit the WSSDA site for the most up-to-date policies.

Sample Language to ADD to your district's existing Responsible Use Policy (RUP) Edmonds SD (District Policy Section 2000 - Instruction)

ARTIFICIAL INTELLIGENCE

Artificial Intelligence is a rapidly-advancing set of technologies for capturing data to detect patterns and automate decisions. Artificial Intelligence (AI) has become an increasingly important part of our lives, and it is essential for students to understand when and how to use it effectively and ethically. AI tools can enhance classroom learning, and their implementation should be guided with proper training, ethical considerations, and responsible oversight. When utilizing generative AI tools to create or support the creation of texts or creative works, students are expected to adhere to these guidelines, the Student AI Code of Conduct, and any additional guidance provided by their classroom teacher.

A. Purpose

The district has maintained staff and student access to generative Artificial Intelligence tools for the following purposes:

- Ensuring all students have equitable access to leverage these technologies, regardless of what learning technology devices may be available to them.
- Providing all students with an opportunity to engage in current technologies in a learning environment, to better prepare them for the world they will live and work in.
- Extending the benefits of these tools to the workplace, where appropriate, to leverage efficiencies and productivity.

B. Appropriate Use

Student and staff use of generative Artificial Intelligence technologies should be used to support and extend student learning and workplace productivity, in accordance with the expectations outlined in Policy #, as well as the guidelines in this document (#). Appropriate student use is further outlined in the attached AI Code of Conduct.

C. Inappropriate Use

In addition to those uses which violate this document (#), the following are prohibited uses of Artificial Intelligence:

- Any use of Artificial Intelligence which does not align with expectations outlined by a classroom instructor or building administrator. It is ultimately the teacher's responsibility to determine the appropriate level of use of Artificial Intelligence in each classroom, and for each assignment or project.
- Use of Artificial Intelligence to complete an assignment in a way that represents the assignment as one's own work.
- Use of Artificial Intelligence to purposefully create misinformation or to misrepresent others for the purpose of harming or bullying groups or individuals.
- Use of Artificial Intelligence with confidential student or staff personal information.

D. Violating these Guidelines

In the event that these guidelines are not followed, schools will be following their normal disciplinary procedures regarding disruptive or inappropriate behavior. Consequences may include discipline outlined in Sample District Procedure 2000, as well as restrictions placed on a student or staff member's use of generative Artificial Intelligence.

Sample Classroom Protocols (Peninsula School District)

In our class, I encourage you to use Artificial Intelligence (AI) tools such as ChatGPT, Google Gemini, Canva, Midjourney, and others. Some of our activities and projects will even require these tools. Understanding and using AI is a new and essential skill, and I will provide lessons and help using these tools.

Some of our activities and projects will even require these tools. However, you must understand a few things about using AI, particularly generative tools like ChatGPT:

- Effort matters. If you don't take the time to think through and carefully write your prompts to the AI, you may not get excellent results. It will require practice and patience to get better results.
- Don't blindly trust the AI's responses if the AI gives you a fact or a number. Remember, you will be responsible for the accuracy of the information you use in your work, even if it comes from the AI.
- Always remember to acknowledge when you've used AI in your work. At the end of any project or assignment where you've used AI, include a short explanation about how and why you used it and what prompts you used. Not doing this could be considered as not being honest about your work.
- Lastly, use AI thoughtfully. It can be a great tool, but it's not always the right tool for the job. Consider whether it's the best choice for the task at hand.

Using AI tools in class can be a fun and exciting way to learn. I look forward to seeing how you use these tools in your work!

Sample Student AI Code of Conduct

Student Pledge for AI Use

I, [STUDENT NAME] as a student of [NAME OF SCHOOL] school, pledge to:

1. Use AI Responsibly: I will use AI tools responsibly and for educational purposes only. I understand that misuse or malicious use of AI tools will not be tolerated and may result in disciplinary action.
2. Respect Others: I will not use AI to harm, deceive, or disparage others. I will always respect others' privacy and dignity.
3. Maintain Academic Integrity: When using AI to assist with my schoolwork, I will always give proper credit. I understand that any work generated by AI should be clearly indicated.
4. Protect Privacy: I will be mindful of my own and others' privacy when using AI. I will not share personal information with AI without appropriate consent and understanding of how the data will be used.
5. Learn Continuously: I understand that AI is a rapidly evolving field. I will continuously learn about AI, its implications, and how to use it ethically.
6. Report Concerns: I will report any concerns or potential breaches of this pledge to a teacher or school administrator immediately.

By signing this pledge, I commit to adhering to these principles and understand the importance of ethical AI use in our school community.

Sample Professional Ethics for Educators When Implementing AI Tools

1. Fairness and Unbiased AI Systems
   a. Ensure all AI tools and software used in classrooms allow equal access and outputs are unbiased.
   b. Verify data or any output generated from an AI prompt is void of language and data that is bias or defamatory.
2. Protect Student Privacy and Data
   a. Establish safeguards to make certain that student data collected, used, and stored is secure and with appropriate consent.
   b. Confirm that any data collected does not violate current regulations relevant to education and student data privacy. (See below)
3. Avoid Overreliance on AI
   a. Use AI tools to enhance teaching and not a substitute for good teaching pedagogy.
   b. Continue professional development to remain up to date with emerging AI tools and resources.
4. Plagiarism and Integrity
   a. Model the same level of integrity as outlined for students.
   b. Cite use of AI in development of materials provided to students when appropriate.
5. Ensure Equal Access
   a. Consider with intention that some students may not have access to digital resources outside of the classroom and assign work that aligns with equal access.
   b. Avoid creating projects that rely implicitly on AI for completion, unless this is a course specifically designed for AI instruction.

Considerations: When kids are not quite ready to speak up for themselves or handle AI tools alone, schools should establish strong partnerships with parents to proactively encourage the development of students' critical thinking skills. Together, parents and school communities should help kids understand how their data is collected and used by AI, whether it's at school, home, or even with toys meant for learning and fun. It's all about making sure kids stay safe and develop critical thinking skills around their personal data privacy.

Current regulations relevant to the use of AI in education

United States

1. FERPA - AI systems must protect the privacy of student education records and comply with parental consent requirements. Data must remain within the direct control of the educational institution.
2. COPPA - AI chatbots, personalized learning platforms, and other technologies collecting personal information and user data on children under 13 must require parental consent.
3. IDEA - AI must not be implemented in a way that denies disabled students equal access to education opportunities.
4. CIPA - Schools must ensure AI content filters align with CIPA protections against harmful content.
5. Section 504 - The section of the Rehabilitation Act applies to both physical and digital environments. Schools must ensure that their digital content and technologies are accessible to students with disabilities.

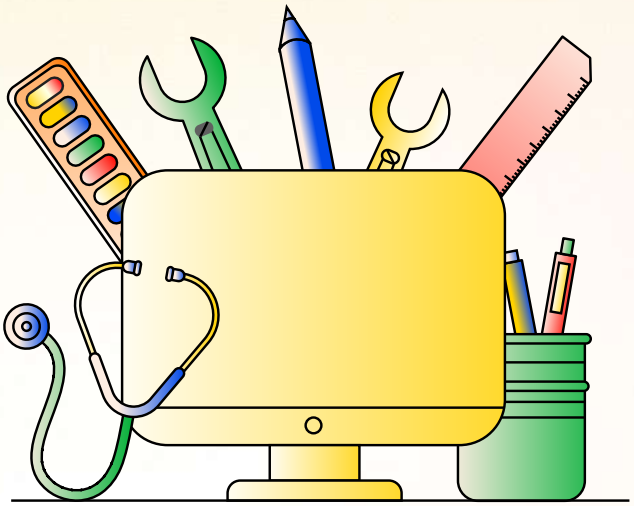
Source: AI Guidance for Schools Toolkit (teachai.org)

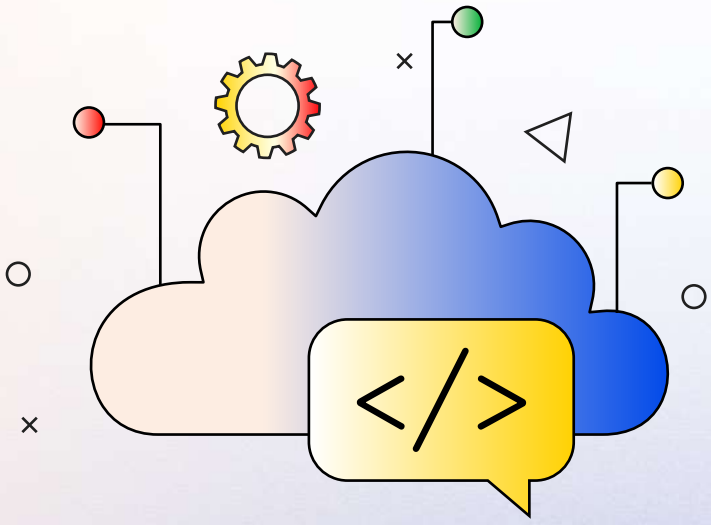
Considering AI in Specific Subject Areas

While AI plays a role in many areas of education, there are some subjects in which AI plays a more prominent role in the classroom or in course materials. Below are some examples of how AI can be integrated into different subject areas — in some cases as a tool, in others as a topic of discussion.

Career and Technical Education

Career and Technical Education (CTE) is crucial in preparing students for the AI workforce, not just as software developers but as proficient users of AI tools and digitally literate graduates. CTE courses equip students with transferable skills and familiarity with the latest software used across various sectors. As AI influences diverse industries, CTE can widen AI-related career paths, encourage cross-training, and increase attainment of multiple industry-recognized credentials in a single pathway. This mindset is key to supporting more students entering the workforce with AI proficiency.





Computer Science

As a field of research, artificial intelligence is considered a subset of the broader field of computer science (Map of Computer Science video and infographic) and is called out in the Computer Science K-12 Learning Standards. Discussions about societal impact of technology, algorithmic bias, user experience, and much more can be naturally incorporated into computer science coursework alongside programming languages, data structures, and other technical material.

Core Subjects

English Language Arts (ELA)

Perhaps the prototypical example when it comes to concerns about plagiarism using AI tools, ELA educators are seeing first-hand the power of large language models. Understanding the limitations of AI tools can help educators distinguish and facilitate student critical thinking versus generated text and images.

Mathematics

At the heart of machine learning, the key subfield of AI upon which many state-of-the-art tools are based, are statistics, linear algebra, and calculus. Neural networks are effectively an application of the chain rule from calculus. Confidence scores generated by machine learning algorithms are essentially probabilities. The way the tool is manifested as a program comes from computer science, while the logical insights produced by the tool come from mathematics.

Physics and Engineering

A continually burgeoning field of AI is robotics, which combines logic and reasoning with engineering principles. From robot vacuum cleaners navigating the floor of a living room to the increasingly more human-like movements articulated by the robots at Boston Dynamics, robotics spans many applications including commerce, disaster relief, and human prosthetics.

Social Studies

Social discourse is increasingly contending with company-designed, bias-promoting algorithms as well as user-side bots that exacerbate the spread of disinformation and misinformation. Use of deepfakes (fake, digital representations of someone's likeness) can range from comical jabs to malicious attempts at influencing public knowledge, belief, and behavior. Social networks have for years served as platforms for civic engagement and AI has and will introduce new concerns that students need to be aware of as digital citizens.

Please note: Additional subjects will be included in the fourth version of the guidance.

Climate and Environmental Science

A critical component of all intensive computing, including widely available AI models, is the energy expended by the servers performing these complex computations. Recent studies have shown that making a single image with generative AI uses as much energy as fully charging a smart phone (MIT). At the same time, AI can be a beneficial tool for related areas such as predicting weather patterns (MIT).

Additional Considerations for Students with Unique Needs

Special Education

AI can support agency, self advocacy, and improved outcomes for students with disabilities through personalized instructional supports to leverage individual strengths, interests, and preferences while addressing needs and closing opportunity gaps.

English Language Learners (ELL)

AI can play a significant role in supporting ELLs by providing them with personalized, interactive, and adaptive learning experiences that may include pronunciation feedback, vocabulary and grammar assistance, reading comprehension support, and speaking practice and interaction.

World Languages

AI-powered chatbots can simulate conversations while adapting to a student's learning level, interests, and goals. GenAI can create customized and dynamic content—such as stories, dialogues, and learning exercises—customized on a learner's preferences and needs.

Section 3

Human Inquiry HAH Human Empowerment

Human-Centered AI Guidance for K–12 Public Schools

Ethical Considerations for AI:

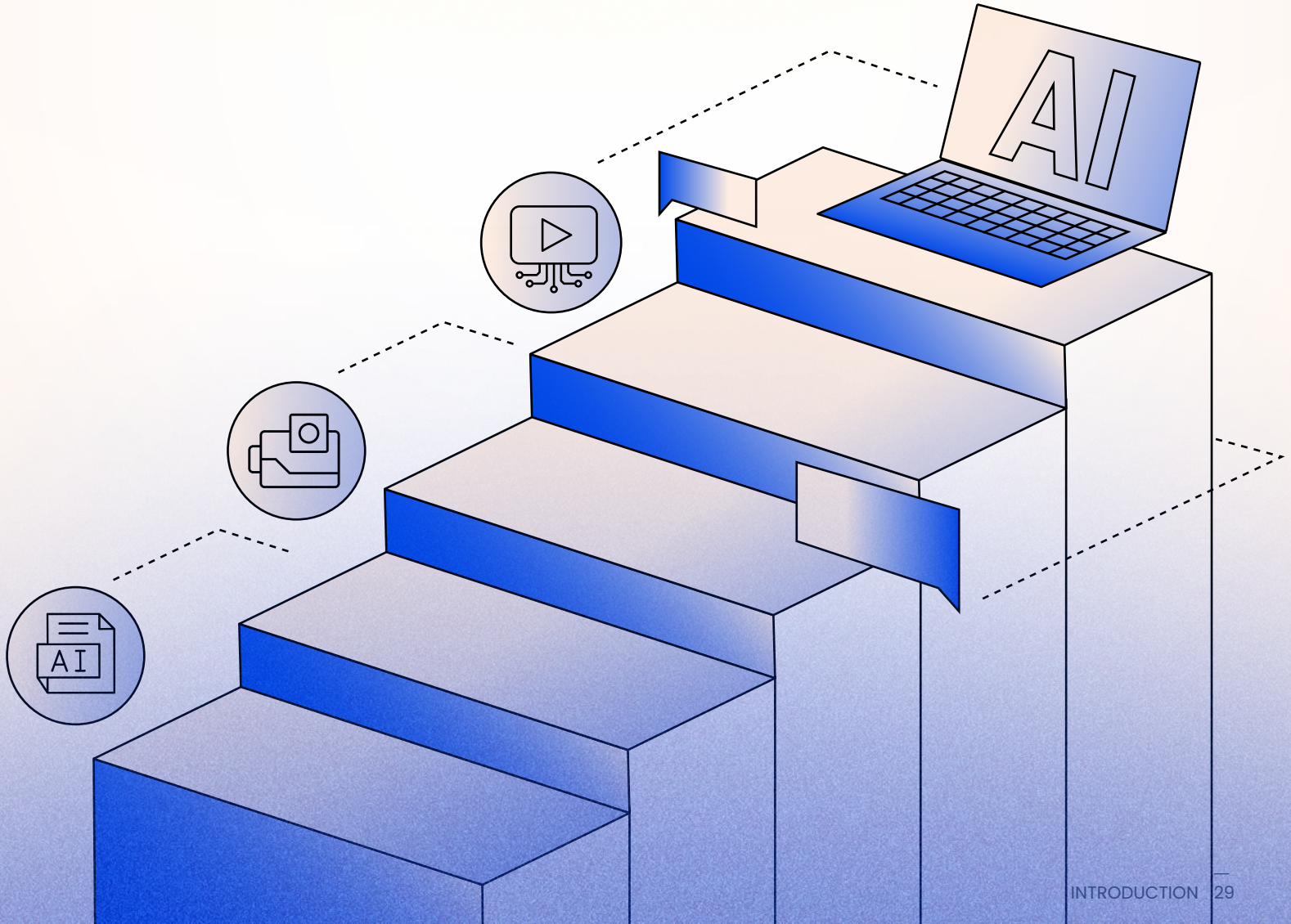
A Framework for Responsible Use

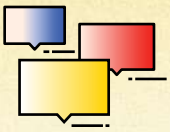
Artificial intelligence (AI) presents opportunities for innovation and advancement in education. Using AI also comes with risks that must be mitigated to protect student privacy, prevent biases and inequities, and embrace human intelligence and empowerment. This document details the ethical considerations that educators, education leaders, students, information technology and education technology professionals, and community members should consider when using AI.

Introduction

This guidance has been developed to support you as you navigate your AI journey. It is intended to spark conversations that encourage the development of a shared understanding of AI in your educational community and the development of your ethical guidelines around the responsible use of AI in your educational setting. This resource is not intended to be a comprehensive nor dictated checklist of right and wrong ways to use AI. You will find that this document is outlined based on specific audiences for ease of use, and you are encouraged to not only explore the information relevant to your district role but also delve into the broad insights.

As AI is implemented, the fundamental focus is human empowerment. For decades, education has seen technology emerge at a rapid pace, including online grading platforms, collaborative tools (such as Google Docs and Microsoft Office 365), adaptive assessments, and immersive readers, which have changed how we interact with and engage students in learning. Through it all, educators have adapted. AI is a similar tool that requires educator expertise to lead integration to ensure student learning remains at the forefront of the educational journey.



Overview of AI Ethics: Understanding the Conversation 

Artificial intelligence often seems to progress rapidly, as though it is a natural phenomenon that unfolds over time. However, AI is unlike the changing of seasons or biological phenomena in that the driving force behind AI is people – developers, researchers, investors, customers, etc. – who collectively fashion the next technological advancement into existence. This human influence introduces various biases, motivations, and incentives into the developmental process. While these innovations could bring great benefits to the creators and the users of AI tools, they also carry potential consequences, ranging from minor inconveniences to profound inequities or harm.

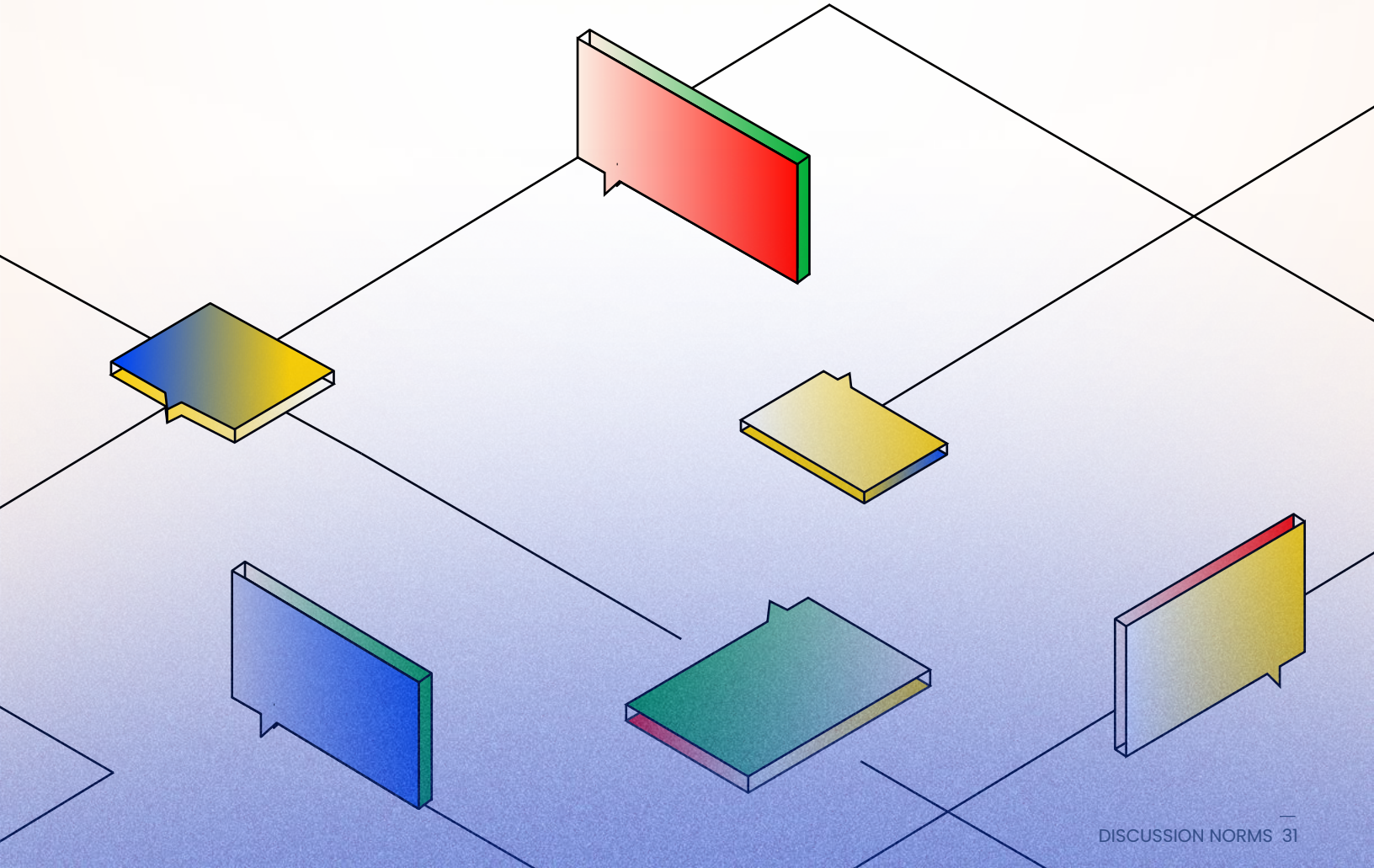
AI ethics examines the impact AI systems have on society and determines how to ensure AI is developed and used responsibly. These issues are not just relevant to those with deep knowledge of AI systems to tackle, but everyone that interacts with these systems. Most people who drive cars, for example, probably do not fully understand the inner mechanics of their vehicles, but that does not preclude them having a moral compass about how cars should be used. The same applies to AI: You don't need to be an AI expert to have a sense of what's morally right or wrong. Furthermore, most of the advanced AI models are much less transparent about how they make decisions. This lack of transparency can make it difficult to know if AI systems are generating outputs ethically. Hence, it's important to think about the ethical implications of AI systems, especially when they are used in decision-making tasks.

Discussion Norms

Ethics is an inherently subjective topic. The values that guide one person's decision-making may conflict with those of another. As such, there is not one correct answer to questions of ethics. If anything should be considered "the answer," it is the discussion itself. Engaging in conversation with one another about these topics is what brings forth critical thinking, personal connection, and human empowerment.

To frame this ethics discussion, we propose the following set of norms be adhered to when considering AI ethics. In your community or context, consider agreeing with and even amending or adding to these norms before beginning the discussion:

- Include everyone in the conversation
- Respect the opinions of others
- Consider the positives and negatives
- Present data and sources as support
- Focus on common goals and solutions
- Expect and accept non-resolution



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The Ethics of AI vs The Ethical Use of AI

When discussing AI ethics, there are two distinct and powerful conversations to have surrounding AI ethics: the ethics of AI itself, and the ethical use of AI by the end user.

The Ethics of AI

The ethics of AI focuses on the inherent qualities of and considerations within AI technologies. One of the concerns is the potential for AI to harbor biases derived from the data on which it is trained. Such biases can inadvertently perpetuate and amplify societal inequalities within educational content and tools, thus necessitating a conscientious approach to the selection and implementation of AI technologies. Factors such as this underscore the need for a responsible and informed approach to deploying AI in educational contexts, emphasizing transparency, fairness, potential bias, and environmental sustainability.

The Ethical Use of AI

The ethical use of AI focuses on how AI is used by the end user. This perspective champions a Human Input → AI → Human Empowerment (H → AI → H) model, advocating for AI to be employed as a bridge between human intention and enhanced capabilities. In this model, AI tools are not seen as replacements for human effort but as amplifiers of human potential. The ethical use of AI in education revolves around empowering educators and students to leverage these technologies to augment learning, creativity, and problem-solving capacities. It is about making informed and conscientious choices in how AI tools are integrated into the learning environment, ensuring they serve to elevate the educational experience rather than detract from the human elements of empathy, learning, and teaching.

Local Education Agency Leaders

Access to AI tools has rapidly become as ubiquitous for education as the internet is for students and educators worldwide. Washington education leaders face the critical task of balancing the need to mitigate serious risks while enabling Local Education Agencies (LEA) to uphold the values of their communities.

When educators and students are accessing AI tools, it is crucial that these tools protect student data and improve student outcomes while allowing the opportunity for increased efficiency and enhanced educational experiences. Therefore, it is imperative that education leaders are mindful and intentional when implementing AI tools and programs in schools, skill centers, and other institutions. Education leaders are encouraged to consider the following:

AI Policies Review and Updates

- Encourage regular reviews and updates to LEA policies to ensure ethical and responsible AI tool use while complying with regulations like FERPA, COPPA, and CIPA.
- Include diverse community stakeholders (parents/guardians, educators, staff, students, legal professionals) in policy reviews and updates.
- For further insights, see guidance for educators and students.

Equitable Technology Access

- Consider how access to software can impact the digital divide and student preparedness.
- Continue to provide options for low- to no-cost internet access for students.
  - Foster local partnerships to enhance technology access beyond school hours.
  - Consider tools that work on lower bandwidths and mobile devices.
  - Engage Career and Technical Education (CTE) industry partners for software recommendations.

Teacher Training and Confidence

- Provide training for educators to build confidence in the use of AI tools.
- Explore funding opportunities to extend training to educators and the wider community.

Ensure Alignment with District AI Vision and Philosophy

- Provide options so that individual schools or classrooms do not ban the appropriate use of new technology.
- Enforce steps in place to prevent students from being left behind their peers due to limited technology access.

Student Privacy and Data Security

- Continue to evaluate the need to balance data demand with student privacy concerns.
- Continue to support technology leadership in addressing risks of data breaches and external sharing of student or staff information.
- Continue to review implemented software that does not promote student profiling and surveillance.
- Provide students with grade-level appropriate instruction in thinking critically about their digital security.

Address Bias

- Consider if the use of AI empowers the user and is the best tool for the purpose.
- Empower educators to teach students to identify and compensate for biases and misinformation when using AI.
- Advocate for creating and adopting bias-aware AI tools.
- Assure diverse tools are catering to various learning styles prioritized during the selection process.

Lead the Vetting of AI Tools

- Consider whether adding AI enhances the action or use of the software.
- Ensure software companies' Data Privacy Agreements (DPAs) are verified.
- Validate that companies are COPPA, CIPA, and FERPA compliant.
- Continue to insist on encryption and security measures and verify that LEA IT staff are comfortable with these procedures.
- Partner with community experts in critical evaluation of CTE and other tools needed to prepare students for the workforce.

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Information Technology/Education Technology Leaders

IT professionals hold a pivotal role in shaping the digital landscape for students and educators. Just as the Internet, computers, smart phones, and other technology have revolutionized learning, AI and the tools that support its use are becoming essential for enhancing the educational experience. Implementation of this technology comes with great responsibility in selecting the right tools to safeguard student information. Here are some considerations to explore as the technology leader in your LEA:

Educational Goals and Alignment

- Insist the software aligns with the LEA's educational goals, policies, and priorities – especially as it relates to equity of access and bias.
- Assess whether the software supports the curriculum, enhances teaching, and improves student outcomes.

Compatibility and Integration

- Consider how well the software integrates with existing systems (e.g., student information systems, learning management systems).
- Enforce actions that support the compatibility with hardware, operating systems, and network infrastructure.

Security and Privacy

- Prioritize security and data privacy.
- Implement vetting procedures requiring vendors to notify the district when updates include AI changes are made.
- Ensure that the software's security features and encryption comply with regulations (e.g., FERPA, CIPA, and COPPA).
- Confirm that the software vendor follows best practices in protecting student data.

Cost and Budget

- Balance the total cost of ownership, including licensing fees, maintenance, and support, in the evaluation for purchase.
- Consider how leveraging AI tools could replace other costs.
- Research different funds you could use to support implementation of AI.
- Find ways that AI can supplant current budgetary items.
- Lead conversations that assess whether the software provides value and access to all students and/or educators for the investment or options for students who may have challenges accessing the software.
- Direct, when possible, the software to run on a lower bandwidth to allow students with limited home Internet access.

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Usability and Training

- Test the software's usability to ensure it is intuitive for teachers, students, and administrators.
- Assess the availability of training resources and professional development for staff.

Scalability and Futureproofing

- Consider whether the software will scale as the LEA grows to meet the educator's and student's future needs.
- Insist the vendor provide regular updates and adapt to technological advancements.

Vendor Reputation and Support

- Research the software vendor's reputation: read reviews and seek recommendations.
- Learn the range of the vendor's customer support, responsiveness, and willingness to address issues meet the needs of the LEA: Is training available when needed and what is the cost?

Licensing Models

- Consider licensing options (e.g., perpetual, subscription-based, concurrent licenses).
- Ensure that the chosen licensing model aligns with the district's financial and operational preferences.

Accessibility and Inclusivity

- Consider how AI tools enhance learning for students, including those with diverse needs.
- Highlight features that promote inclusivity and accommodate diverse learning needs.

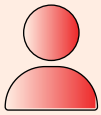
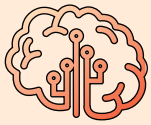
Pilot Testing and Feedback

- Create an AI pilot group/committee of users before full implementation of an AI tool.
- Engage and gather feedback from educators, students, and administrators to inform decision-making and to provide transparency of decisions.

Educators

As AI becomes more ingrained in our daily life, it is imperative that educators establish clear guidelines and model the ethical and transparent use of AI, as well as support healthy conversations and safe use. It is critical that educators create a classroom culture that empowers both themselves and their students in having conversations around the ethical use of AI within the context of the class, alignment with learning standards, and outcomes being met on an assignment-by-assignment bases. Much like when using a calculator, math educators will support students in understanding which assignments calculators can be used and which assignments they cannot. Educators must have constant conversations and make clear the intended outcomes of assignments to students. In support of this, an educator might consider creating a set of classroom guidelines that lay out the responsibilities that students have in completing assignments.

To support students in understanding the different ways in which AI might be leveraged within a given assignment, it is recommended that educators or a school at large adopt an AI Matrix so that students are clear on how to use AI tools ethically and responsibly on a given assignment. The OSPI AI Matrix is a good starting point for educators to build an understanding of ethical AI use.

Level 1 **No AI Assistance**	**Level 2** **AI -Assisted Brainstorming**	**Level 3** **AI-Supported Drafting**	**Level 4** **AI-Collaborative Creation**	**Level 5** **AI as Co-Creator**
				Human Inquiry HAH Human Empowerment
No AI tools are used at any point. Students rely solely on their knowledge and skills.	AI tools can help generate ideas. Final content must be created by the student without direct AI input. AI assistance must be cited.	AI can help with drafting initial versions. The final version must be significantly revised by the student. Clear distinction between AI input and student's contributions.	AI-generated content can be included. Student must critically evaluate and edit AI contributions. AI usage must be transparent and cited.	Extensive use of AI in content creation. Student provides a rationale for AI use and ensures original thought. Work adheres to academic integrity with proper citations.

Dowload 5 Step Scaffolding Scale

When creating a classroom culture around ethical use of AI, teachers should also consider establishing the responsibilities they have to students incorporating AI use within assignments.

Teachers' Considerations Regarding AI Use in Assignments

Clarity: Consider, before assigning any work, clearly stating whether AI is allowed and to what extent. This clarity ensures that all students understand the expectations and can adhere to them, fostering a fair and equitable learning environment.

Rationale: Consider providing reasons behind decisions on AI use in assignments. Understanding why AI is permitted or not helps students see the value in developing their own skills and knowledge as they learn to leverage technology effectively.

Guidance: Consider guiding students on how to use AI responsibly when allowed. This includes teaching students to critically assess AI-generated content and to use AI as a tool for learning enhancement rather than as a shortcut.

Support: Consider providing resources for students to learn about AI and its applications. This support ensures that all students, regardless of their prior exposure to AI, can confidently use these tools in their academic work.

Establishing a classroom culture that empowers students to use AI tools ethically and responsibly is the responsibility of every educator.

Evaluating Student Work

It is highly recommended that educators use caution when leveraging AI tools to evaluate student work. When weighing whether to use AI to evaluate student work, educators are asked to consider the following:

- Make sure the student work does not have personally identifiable student information.
- Communicate with students that you will be leveraging AI to evaluate their work.

Using AI Detection Tools

It is highly recommended that educators do not utilize AI detection software in evaluating student work. Research by both Vanderbilt University and Stanford University have shown these tools to be less accurate than advertised, as well as biased against non-native English speakers and writers. The best way to detect if AI was used inappropriately within a learning experience is to know your students' voice and writing style through samples of work gathered over time. Rather than rely on AI detection software, it is recommended that educators create a classroom culture built on the ethical use of AI within the learning journey.

If the inappropriate use of AI is suspected, it is recommended that educators have a conversation with the student(s), allowing them to explain if they used AI and in what compacity within the assignment. If an AI Matrix has been implemented and clearly communicated within the classroom, it can form the basis for these conversations. Ultimately, the goal of these conversations is for both the educator and student to understand the use of AI.

Students

Artificial intelligence is quickly becoming more capable of doing many incredible things. You, as a student, have an important role in making sure that AI is used for good. Here's why:

You are the ultimate AI tester. Being a student means you are great at exploring new things and using AI in creative ways to learn and grow. It's like playing a game and figuring out all the best moves. You probably already use many applications or websites every day that make use of AI, such as social media, video streaming and recommendation sites, and virtual assistants.

Keep in mind that AI is kind of like a toy robot. In some ways, it can be very sophisticated and can perform some complex tasks, but at the same time it can only do what it is programmed to do. This means AI can be used in the wrong way, sometimes by accident. Plus, the companies that make AI might collect your personal information without you knowing it!

In other words, there are pros and cons to using AI, which is why it is so important that you engage with AI ethically. Think like a detective. You want information from the AI, but you also have questions to ask yourself, such as:

- Is the AI helping you learn or is it just doing the work for you?
- What kind of information is the AI using to learn?
- Does the application ask for personal information that you would not normally give to a stranger?
- Are the results or responses fair or biased? What sort of information might be missing from the results that you think should be considered?
- How could someone misuse this tool, either on purpose or by mistake?

By critically thinking about AI, you can help make sure it benefits everyone. If you are ever unsure, ask your teachers, family, or community members.

Framework for Students on Discussing Their Workflow

When working with AI, it's important to think about people. First, consider how you're using AI. Is it helping you with a task? Maybe suggesting what to write in an essay or creating some cool art to show your friends what you are imagining? Keep people and how they will view your work in mind.

Next, check the work that AI gives you (output). Whatever writing or picture the software gives you, take a close look and evaluate it. Is it accurate? Does it make sense?

If you are unsure, talk to your teacher. When it is time to submit the final project, make sure you have used AI wisely.

Here are some more tips to consider as you use AI to support your learning:

Transparency

Always be clear and honest about how you've used AI in your assignments. Whether you've used it to generate ideas, conduct research, or check your work, your teachers and peers should know how AI tools have contributed to your final submission.

Understanding

You should not only use AI but also strive to understand the concepts and content it helps you create. Be prepared to discuss the reasoning behind your work, how you've used AI to assist you, and the knowledge you've gained through the process.

Reflection

Reflect on your learning process with AI. Consider what you've learned independently and what insights AI has provided. This reflection will help you articulate your workflow and the role AI played in your assignments.

Collaboration

Engage in discussions with your peers and teachers about the use of AI in your work. Sharing your experiences can foster a community of learning where everyone benefits from collective insights and strategies.

Family and Community Members

Mentors, friends, family, and all community members who support our students are a hugely important part of the Washington education system. Whether you're picking up and dropping off at school, helping with homework, coaching an after-school team, or cooking dinner, you have an impact on our students' lives. Depending on your level of familiarity, topics like artificial intelligence might seem out of your wheelhouse. Nonetheless, you are encouraged to keep your student's well-being in mind as they navigate the AI landscape.

Try to identify what tools you use regularly that may depend on lots of data. Movie recommendation systems, text autocomplete and grammar checking apps, and web search engines are examples of common tools now based on machine learning AI models. Even without delving into the details of how these models work, you can help guide students' critical thinking and perhaps even bring them on your own journey toward understanding these ethical questions.

Consider the following example:

> You're on a website shopping for sunglasses and see an option to use their "virtual try-on" tool. After opening the tool, you quickly agree to the lengthy disclaimer, proceed to scan your face with your camera, and very conveniently see how the slick pair of sunglasses looks on your face via a 3D virtual display.

This might be a completely innocuous scenario. But consider what you may have agreed to in the disclaimer. What data is the site extracting when it scans your face? You may have provided biometric data not unlike the facial IDs used to unlock many smart phones. Your likeness may be shared with third party sites. Some form of AI is probably used to align the virtual glasses model with your face and is, as far as you can verify, just a neat, useful tool. But is the convenience worth what you may be giving up? How might these considerations apply to other tools you have used?

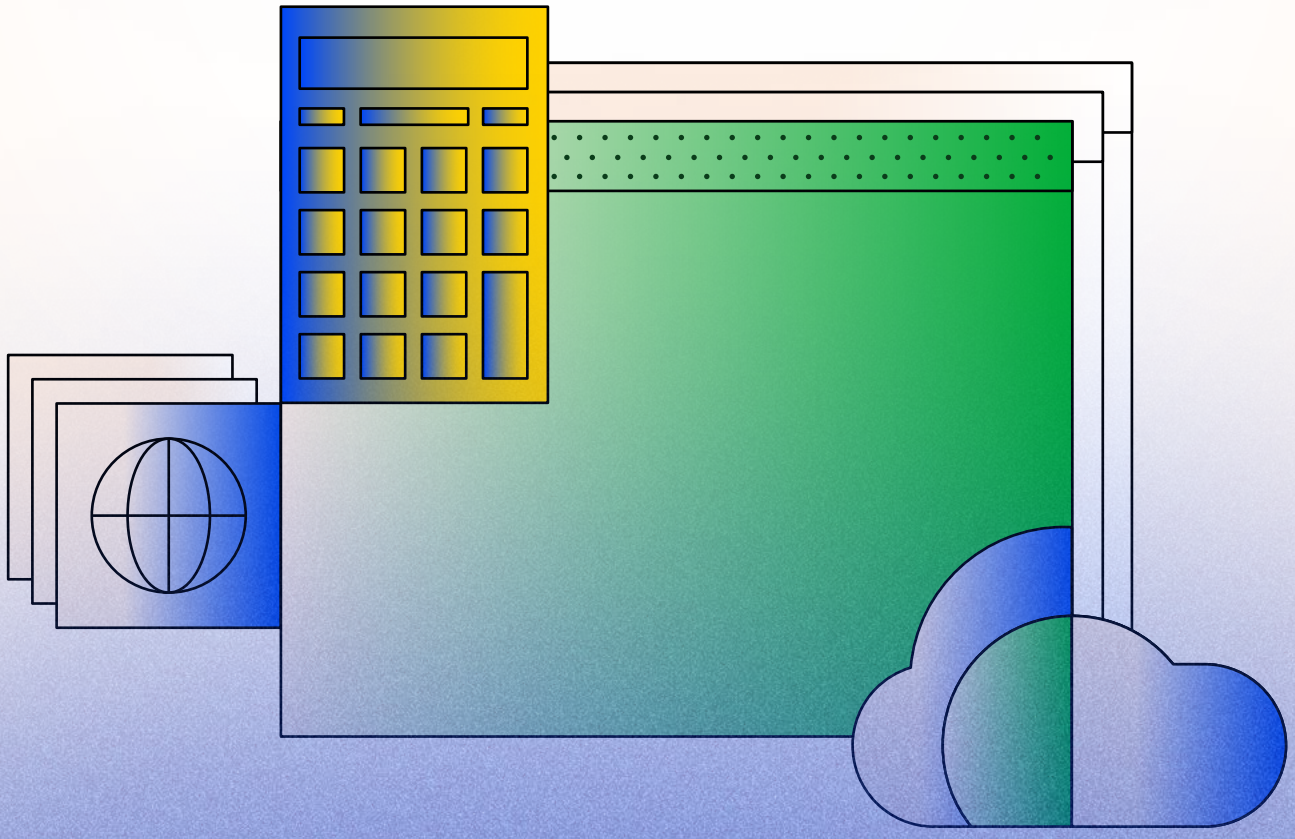
Include your student(s) in these conversations. They might realize something they have never considered, reveal other relevant information you may not have been familiar with, and perhaps make connections with other AI tools they are using for their learning. The more everyone in the community is aware of these concerns, the more critically we can all engage with AI.

Outlook

Every technology has historically faced a significant amount of confusion and pushback. Consider, for example, calculators, which initially raised widespread skepticism and concerns about their potential to weaken students' mathematical skills. Similarly, the introduction of computers sparked debates and concerns over increased screen time and decrease in interpersonal interactions.

Just as past educational advancements have brought both challenges and opportunities, the current wave of innovation holds great potential for enhancing student learning. It is our collective responsibility to ensure that human empowerment (H → AI → H) is a key consideration in our critical evaluation and application of tools that improve educational experiences for all students.

In this era of rapid innovation, it is important to recognize our place at the cusp of change. This guidance serves to shed light on important factors for a diverse group of stakeholders. As AI systems evolve, our guidelines and considerations must also evolve to keep pace with new technologies and the ever-changing cultural and social landscapes in which they are embedded. As our communities' knowledge expands and our societal norms around technology shift, it is imperative that these discussions remain a central focus in our educational institutions, engaging both students in the classroom and the broader school community. Continuing to prioritize these dialogues and maintain a human-centric approach in education—always putting the student experience first—is the most valuable legacy we can pass on to future generations.



Professional Development

As Gen AI continues to evolve and impact all aspects of industry, LEAs need to provide training on and understanding of Gen AI for all educational stakeholders. The appropriate use of AI always begins with human inquiry and ends with human engagement with the AI output. LEAs must ensure users of Gen AI understand the safe, responsible ways to utilize these tools in a human-centered approach.

LEA leadership should prioritize staff understanding of how to utilize the technology in the following areas:

- Improve organizational awareness, productivity, and effective use of AI tools
- Understand the pedagogical changes that Gen AI has for learning
- Promote student empowerment in the use of AI in work and assessments
- Establish a shared understanding about the importance and equity concerns when using AI
- Promote access to appropriate AI tools for learning
- Create a shared understanding of academic integrity in the era of AI
- Emphasize ethical use of AI
- Promote understanding of AI and AI tools across the wider educational community
- Empower teachers to generate curriculum using open educational resources provided by OSPI (Washington OER Hub)

Human Inquiry-AI-Human Empowerment: AI in Education FAQ

This FAQ dives into the transformative role of AI in education, shedding light on how it's reshaping teaching and learning. It highlights AI's potential to tailor education to individual needs, streamline educator tasks, and enhance school operations. Alongside the excitement, OSPI cautions about issues such as privacy and equity. Essentially, OSPI envisions AI as a powerful ally in education by embracing a human-centered approach, focusing to make learning more effective and accessible, while also acknowledging the challenges that come with integrating technology into educational environments.

What is AI in Education?

Some key aspects of AI in education include:

- Personalized learning, intelligent tutoring systems, and increased access to learning for students from all backgrounds
- Leveraging automation in grading and administrative tasks
- Utilizing unprecedented access to data and knowledge to inform instructional decision-making

How Can AI Improve Teaching and Learning?

AI can improve teaching and learning by increasing efficiency, personalization, and accessibility.

Some examples of improvements include:

- Early identification of learning disabilities and opportunities for interventions
- Language translation and support
- Assisting with curriculum development
- Continuous professional learning for educators
- Facilitating collaborative learning and enhanced engagement in class

How Does AI Personalize Learning?

AI can use data-driven approaches and adaptive technologies to personalize educational experiences to individual needs.

Some examples include:

- Analysis of student learning and customized feedback
- Intelligent tutoring systems and adaptive course content
- Personalized learning schedules and study guides
- Guidance for further study, skills development, and career interests

What Role Can AI Play in Assessing Student Performance?

AI can enhance efficient assessment of student performance, though it may not be appropriate for assessing all student outputs.

Some appropriate uses of AI in assessment include:

- Creating assessments that are adaptive and interactive
- Automated grading of multiple-choice tests
- Performance tracking over time, identification of knowledge gaps, and personalized feedback
- Analysis of skills and competency, sentiment, and engagement

How Can AI Support Educators?

AI can support educators by enhancing their efficiency and effectiveness.

Some examples include:

- Automating administrative tasks
- Language translation
- Supporting the creation of learning materials and development of curricula
- Enhancing accessibility of classroom content
- Analysis of student performance
- Professional learning plans

How Is AI Integrated into Educational Curricula?

Integrating AI into educational curricula should take a multifaceted approach that includes not only teaching about AI itself, but also using AI as a tool in the classroom.

Some ways to integrate AI into curricula include:

- Teaching AI concepts
- Incorporating AI into STEM (science, technology, engineering, and mathematics) education
- Project-based learning
- Educational games, simulations, and virtual or augmented reality experiences. Enhancing accessibility of classroom content

How Can AI Improve Education Systems?

AI—when used responsibly—has the potential to improve educator and student experiences.

Some examples of improvements include:

- Making educational resources scalable
- Enhanced research capabilities, including processing and analyzing large datasets
- Fostering global learning communities by transcending language barriers and geographical boundaries
- Efficiency and cost-effectiveness

Are There Any Risks or Challenges Associated with AI in Education?

Yes. As with other technology that came before it, there are risks and challenges that need to be managed when integrating AI in education.

Some concerns include:

- Data privacy and security
- Bias in algorithms and other AI tools
- Inequitable access to technology
- Over-reliance on technology, including effects on student interactions and social skills
- Academic honesty and plagiarism
- Quality controls and fact-checking

What Are the Ethical Considerations of Using AI in Education?

Using AI ethically means using AI in ways that are responsible, safe, and beneficial.

Some considerations include:

- Bias, fairness, and cultural sensitivity and inclusion
- Data privacy and security
- Potential impacts on psychology and development
- Autonomous AI as a replacement for human decision-making
- Potential long-term consequences

What Is the Future of AI in Education?

The future of AI in education looks promising and is expected to transform how education is delivered and experienced.

Some key trends that are likely to shape the future of AI in education include:

- Advanced adaptive learning systems with greater personalization
- AI literacy and skills training
- Emotion recognition and mental health support
- Collaborative AI
- Smart campus infrastructures
- AI as a research assistant
- Combatting educational disruption

AI Integration: Leadership Checklist

There are important steps that Local Education Agencies (LEAs) should take when implementing the use of artificial intelligence (AI) in schools. Like technology that came before it, AI presents opportunities for enhanced learning experiences, creative and innovative thinking, and personalized instruction that supports all learners. Also like technology that came before it, AI must be used in ways that are responsible, ethical, and safe.

Having clear and updated LEA policies will support the appropriate use of AI in the classroom. Below, find a checklist to guide your process of integrating AI into your LEA. All draft AI policies should be reviewed and approved prior to adoption.

Step 1: Identify Stakeholders

✓ Make a list of key stakeholders within your LEA that will support your LEA with developing and adopting AI policies. Consider including:
- School district leaders
- IT Directors
- Educators
- Students
- Communications staff

✓ Make a list of key stakeholders in your LEA community that should be consulted and informed throughout your LEA's process of developing and adopting AI policies. Consider including:
- School board members
- Families
- Students
- Community members
- Community partners (such as advisory committees, school board members, CTE advisory committees, businesses, or nonprofit organizations that your LEA works with regularly)

Step 2: Discussions with Stakeholders

✓ Use OSPI's AI guidance, AI terms, and FAQ as resources to provide a basis of understanding for conversations.

✓ Work with stakeholders within your LEA to identify AI tools that your LEA will support. Consider:
- The availability of technological infrastructure at your LEA
- The data privacy policies of the AI tools under consideration
- How teachers will engage in professional learning opportunities to integrate AI into their classrooms

✓ Give families, students, community members, and community partners multiple opportunities to engage in the process. This engagement could look like:
- Town hall meetings
- Open houses
- Question-and-answer sessions

Step 3: Develop AI Policy

✓ Collaborate with stakeholders to develop your LEA's AI policy.

✓ Develop a process for updating your LEA's AI policy as technology advances and the needs of your LEA community change.

✓ Ask stakeholders to review and provide feedback on your LEA's AI policy. Ask multiple types of stakeholders to engage in the review process, including:

- Administrators
- Educators
- Students
- Families

✓ Partner with your LEA's communications staff to:

- Ensure that your LEA's AI policy is written in "Plain Talk."
- Ensure that the document is compliant with the Americans with Disabilities Act.
- Make the document available to the public.
- Identify the process for updating the document and housing its updated versions.

Step 4: Update Other Policies

✓ Using the processes in place at your LEA, work with committees, appointed staff, and/or others to review and update current LEA policies to be in alignment with your AI policy. Policies to consider including:

- Technology Responsible Use Policy (RUP)
- Integrate LEA academic integrity policy
- LEA student code of conduct or HIB (harassment, intimidation, bullying) policy
- Staff policies
- Classroom academic policies and syllabi

✓ Partner with your LEA's Communications staff to coordinate messaging to students, families, and other stakeholders regarding these updated policies.

Human Inquiry
HAH
Human Empowerment

Definitions of Key AI Technology Terms OSPI AI Advisory Group

Audience: Education Leaders

Version 5: 03/27/2024

Term	Definition	Resources
Algorithm	An algorithm is a structured series of steps or rules formulated to process information and achieve desired outcomes.	Explainer: What Is an Algorithm?
Artificial Intelligence (AI)	Artificial Intelligence (AI) is a computer system that can learn, make decisions, and perform tasks typically needing human intelligence.	What is Artificial Intelligence?
Large Language Model	Large Language Models are advanced AI systems designed to understand, interpret, and generate human language, imagines, audio and video products.	How Chatbots and Large Language Models Work
Generative AI	Generative AI is an AI algorithm capable of creating text, images, videos, or other content using generative models, in reponse to prompts.	Generative AI: what is it good for?
GPT AIs	"GPT" (generative pre-trained transformer) includes: ChatGPT, ImageGPT, MusicGPT, VideoGPT and more to come. **Generative:** The AI generates materials based on an input. **Pre-Training:** The AI is pre-trained on a set of data (Large Language Model). **Transformer:** The underlying technology code and algorithm that makes the AI work in a particular way.	

Term	Definition	Resources
Human empowerment (AI)	Humans use AI technologies to enhance human capabilities, well-being, and autonomy, ensuring that AI systems are designed to support, augment, and elevate human abilities, experiences, and values across diverse domains of life.	The Future of Human Empowerment
Algorithmic Bias	Algorithmic bias is the systematic and unfair distortions in the output of algorithms.	Machine Learning and Human Bias
Hallucination (AI)	AI hallucination is the phenomenon where AI systems produce fabricated or inaccurate information.	Why Large Language Models Hallucinate
AI Ethics	AI ethics are the set of guiding principles that stakeholders use to ensure artificial intelligence technology is developed and used responsibly.	Ethics of AI: Challenges and Governance

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AI Use Disclaimer

In crafting this guidance, OSPI harnessed the power of Large Language Models (LLMs). Anchored in the "Human AI Human" paradigm, this document aims to foster and model responsible and ethical engagement with AI technologies. Educators are encouraged to leverage AI as an augmentation tool, preserving human insight and creativity.

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