Human-Centered AI

Guidance for K-12 Public Schools

Version 1.0

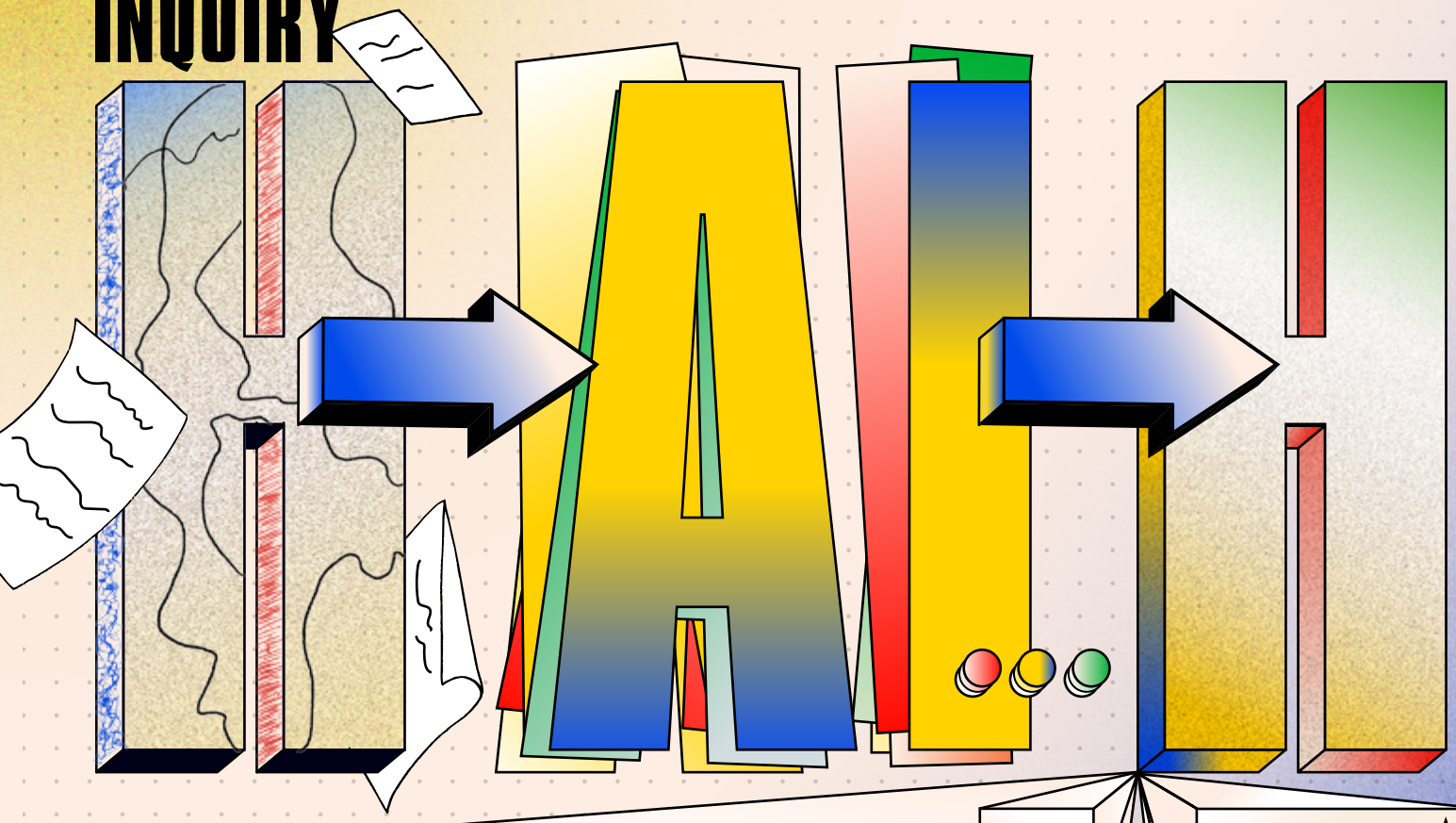
Date of publication: January 18, 2024

https://ospi.k12.wa.us/ai

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

Human Inquiry
HAH
Human Empowerment

Table of Contents

4 Message from Washington State Superintendent Chris Reykdal

5 Executive Summary
- 5 In This Guidance
- 5 How to Use This Guidance

6 Understanding Artificial Intelligence
- 6 AI in Education: A Human-Centered Approach

8 Definitions: What AI Is and What It Is Not
- 9 Potential Opportunities for Using AI in Education
- 9 Potential Risks That Need to Be Mitigated When Using AI in Education

10 Principles and Values

11 Guidance
- 11 A Human-Centered Approach to AI
- 11 Implementing AI in Student Learning
- 12 Sensitive and Confidential Data

13 Policy
- 13 Building Human-Centered AI Policies
- 14 Updates for Existing Policies
- 14 Academic Integrity

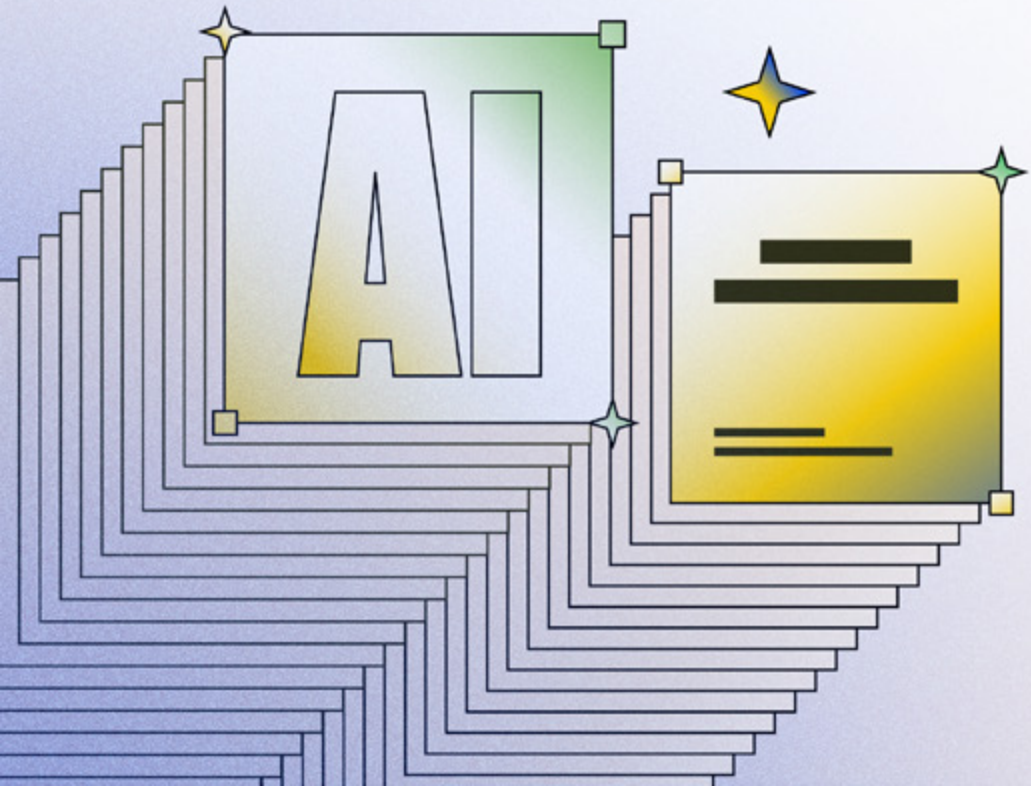
15 Professional Development

16 Conclusion and Next Steps

17 Acknowledgements

18 References

19 Legal Notice



Human Inquiry
HAH
Human Empowerment

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

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.

---

[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.

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.

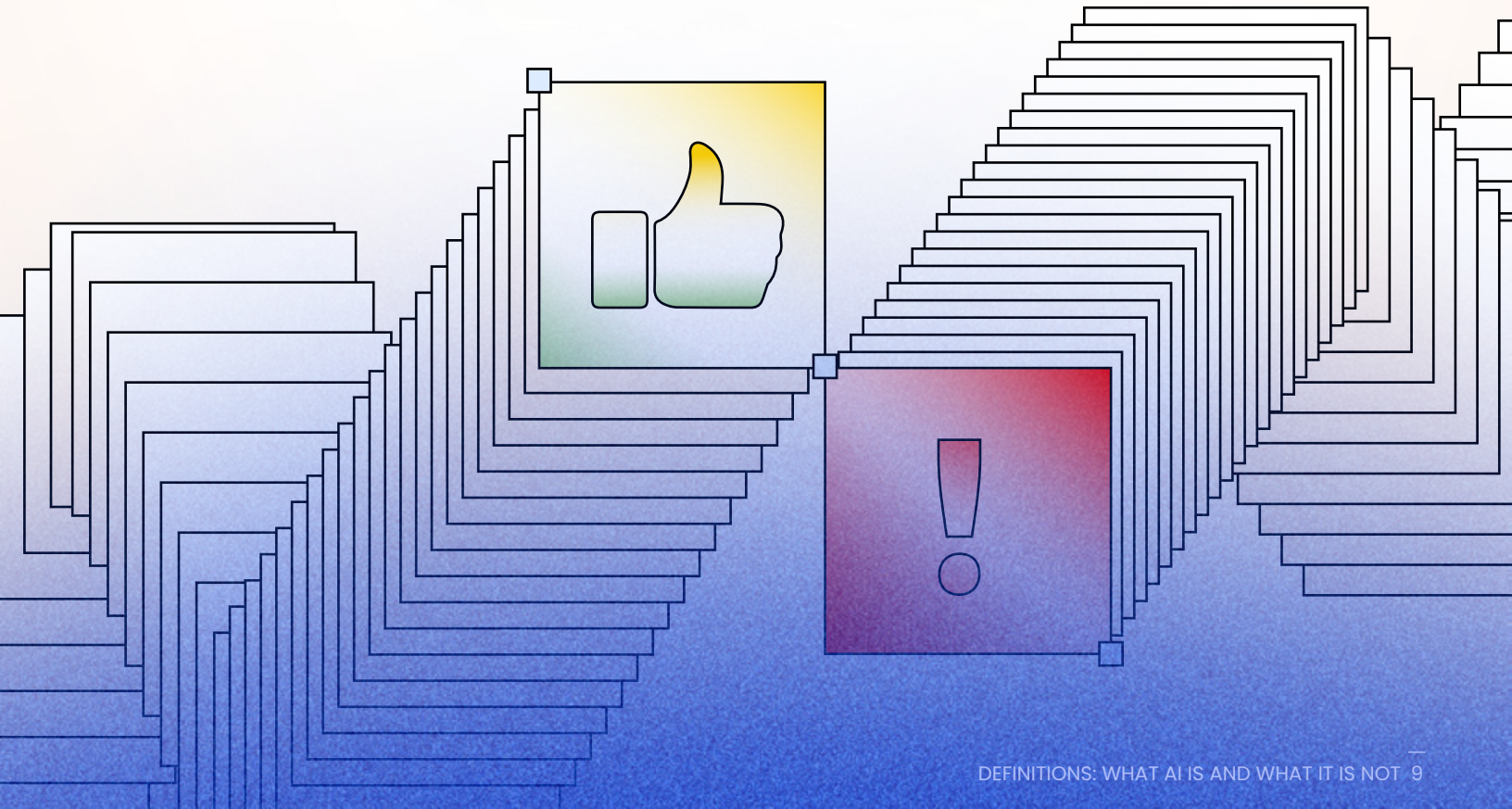
Potential Opportunities for Using AI in Education

- 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.

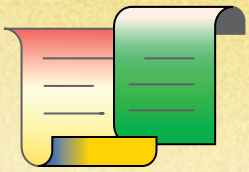
---

[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). I*nterim 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.

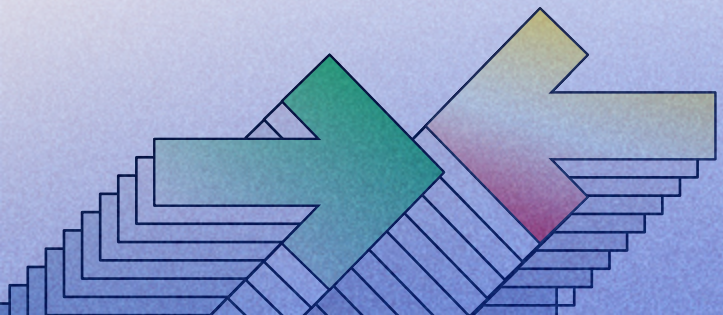
Policy

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

Professional Development

As Gen AI continues to evolve and impact all aspects of industry, LEAs need to provide training 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)

Conclusion and Next Steps

OSPI is committed to leading Washington state in AI education and preparing the next generation of learners and leaders for a future that is built with and alongside AI. This guidance is intended to be a living document; OSPI recognizes that AI tools are constantly evolving and expanding and will regularly review this guidance to determine if and when updates are appropriate.

OSPI, at the guidance of the AI Advisory Group and in partnership with stakeholders across Washington, will also continue to develop tools and resources for use by educators, education leaders, and students and families.

Over the coming months, the following will be made available:

- A list of Frequently Asked Questions (FAQs)
- Guidance and resources focused on classroom and student implications
- Guidance on using AI to improve internal district operations, such as data management, resource allocation, and decision-making
- A checklist for LEA leaders responsible for developing and implementing AI policies
- Resources on how to promote ethical, responsible, and inclusive use of AI in K–12 education
- Resources that address the challenges of privacy, security, bias, and equity
- High-quality, equity-based professional learning opportunities about AI integration for educators and administrators

Acknowledgements

OSPI is grateful for the work of the AI Advisory Group for collaborating to develop this guidance, as well as for their continued work in leading Washington state's approach to integrating AI in K–12 classrooms.

AI Advisory Group:

- Adam Aguilera, Teacher at Evergreen Public Schools
- Cindy Cromwell, Principal in Kelso School District
- Dr. Trevor Greene, Superintendent of Yakima School District
- Kris Hagel, Executive Director of Digital Learning for Peninsula School District
- Travis Rush, Technical Education Lead for the Association of Educational Service Districts (AESD)
- Dr. Min Sun, Associate Professor at the University of Washington's College of Education
- A student representative from the Bainbridge Island School District

OSPI Staff:

- Mikhail Cherniske, Senior Policy Analyst at OSPI
- Terron Ishihara, Computer Science Program Supervisor at OSPI
- Holli Kalaleh, Business and Marketing Program Supervisor at OSPI
- Dr. Jon Ram Mishra, Assistant Superintendent of Elementary, Early Learning, and Federal Programs at OSPI
- Zac Murphy, Director of Multimedia and Information Strategy at OSPI
- Bre Urness-Straight, Director of Educational Technology at OSPI
- Rebecca Wallace, Assistant Superintendent of Secondary Education and Postsecondary Pathways at OSPI

OSPI also extends recognition to Tammie Schrader and Jeff Utecht for their contributions as facilitators.

AI Use Statement

In the spirit of fostering an educational environment where technology amplifies human potential and capability, this guidance is anchored in the "Human → AI → Human" model. It is designed to direct the responsible, ethical, and safe engagement with AI technologies. Educators are encouraged to use AI as a tool to augment, not replace, human insight and creativity in the learning process. This guidance provides a framework to integrate AI into student learning, ensuring that it is used to enhance educational outcomes while upholding principles of equity and inclusion. As AI continues to evolve, this document will serve as a living reference, evolving to meet the needs of Washington's diverse and dynamic educational landscape.

References

Chen, C. (2023). *AI Will Transform Teaching and Learning. Let's Get it Right.* Stanford University Human-Centered Artificial Intelligence.https://hai.stanford.edu/news/ai-will-transform-teaching-and-learning-lets-get-it-right

Dimitriadis, Y., Martínez-Maldonado, R., Wiley, K. (2021). *Human-Centered Design Principles for Actionable Learning Analytics.* In: Tsiatsos, T., Demetriadis, S., Mikropoulos, A., Dagdilelis, V. (eds) Research on E-Learning and ICT in Education. Springer, Cham. https://doi.org/10.1007/978-3-030-64363-8_15

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

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

Michigan Virtual. *Planning Guide for AI: A Framework for School Districts.* https://michiganvirtual.org/resources/guides/ai-guide/

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

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

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

The University of Melbourne. (2023). *Keep education human-centered in an AI, digital teaching world: report.* https://www.unimelb.edu.au/newsroom/news/2023/july/keeping-education-human-centered-in-an-ai,-digital-teaching-world-report

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

Legal Notice

Except where otherwise noted, this work by the Office of Superintendent of Public Instruction is licensed under a Creative Commons Attribution License. All logos and trademarks are the property of their respective owners.

This resource may contain links to websites operated by third parties. These links are provided for your convenience only and do not constitute or imply any endorsement or monitoring by OSPI.

If this work is adapted, note the substantive changes and re-title, removing any Washington Office of Superintendent of Public Instruction logos. Provide the following attribution:

"This resource was adapted from original materials provided by the Office of Superintendent of Public Instruction. Original materials may be accessed at https://ospi.k12.wa.us/ai."

OSPI provides equal access to all programs and services without discrimination based on sex, race, creed, religion, color, national origin, age, honorably discharged veteran or military status, sexual orientation including gender expression or identity, the presence of any sensory, mental, or physical disability, or the use of a trained dog guide or service animal by a person with a disability. Questions and complaints of alleged discrimination should be directed to the Equity and Civil Rights Director at 360-725-6162 or P.O. Box 47200 Olympia, WA 98504-7200.

This material is available in alternative format upon request. Contact the Resource Center at 888-595-3276, TTY 360-664-3631.