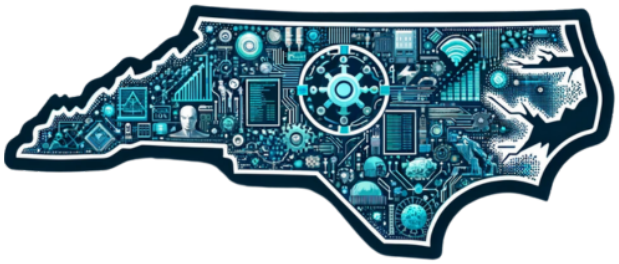
North Carolina Department of PUBLIC INSTRUCTION



North Carolina Generative AI Implementation Recommendations and Considerations for PK-13 Public Schools

Publication Date 1/16/24

https://go.ncdpi.gov/AI_Guidelines

Direct questions about this document to Vera Cubero or Dr. Ashley McBride .
This is a Living Document for an Evolving Future: last updated 2/2/2026. See Update Log for update details

About this Resource

These generative AI implementation recommendations and considerations have been created as a way to share information and resources to direct the responsible implementation of generative AI tools and guide AI Literacy in North Carolina Public Schools.

These guidelines have been organized around the five focus areas of the North Carolina Digital Learning Plan, which guides digital teaching and learning for North Carolina public schools. The Digital Learning Plan encourages the safe use of innovative technology to prepare students for future school, improve student outcomes, and supports the appropriate use of technology to advance learning.

The Office of Digital Teaching and Learning, housed within the North Carolina Department of Public Instruction(NCDPI), supports educators in using generative AI safely to improve student learning. If you need assistance with implementing generative AI into your district or school, please reach out to your regional Digital Teaching and Learning Consultant. All regional DTL consultants' contact information, as well as a wealth of other information, may be found on the DTL Hub webpage.

Acknowledgements:

This document was developed by the NCDPI AI Guidelines Committee, a collaboration between several different Offices within NCDPI and includes the following members:

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AI Use Disclosure

This update to the *North Carolina Generative AI Implementation Recommendations and Considerations for PK-13 Public Schools* was produced through a human-led process that incorporated selective assistance from OpenAI's ChatGPT (model o3, ChatGPT Deep Research). ChatGPT was utilized as a partner with human oversight to generate outline options, provide feedback, suggest edits, convert source notes into MLA footnotes, and research recent AI-related research and policy references for the authors' review.

Navigation

The document outline is available by clicking the 'tabs and outlines' icon in the upper left corner of this Google Document to show the tabs and outline. This outline serves as a clickable and navigable table of contents.

Version History

Because Generative AI is an emerging technology and is changing rapidly as are laws and rules governing its use, this is a living document and it will be updated as needed to reflect changes that take place in this very fluid environment. As updates occur that have significant implications in education, we will update this document.
The 'Version History' table below will include details of all updates and changes so that users can see at a glance what updates have been made.
Note that the last update will appear at the bottom of the title page for your reference.

Update Log:

Date	Version	Changes and Updates
1/16/2024	01	Original publication
1/28/24	02	• Minor technical edits/corrections • Added Version History page p. 2 • Added example prompts p. 20 • Reorganized AI Literacy Recommendations by Grade Span and added new recommendations p. 17 • Added new resources to Appendix p. 33
2/18/2024	03	• Technical corrections
3/4/2024	04	• Added Student Facing AI Tools p. 19
3/5/24	05	• Added AI Resistant, AI Assisted, AI Partnered Assignments p. 29
3/20/24	06	• Updated Student-Facing Tools paragraph p.18; • Removed Student Facing AI Tools graphic (was on p. 19) for updates
4/11/24	07	• Added more guidance on Student Facing Tools p. 19 in light of new student-facing built-for-education models
4/28/24	08	• Added resources- New Teach AI Policy, National Ed Tech Plan 2024 • Updated AI Assessment Scale to AI to 'Student AI Integration: 0 to Infinity' p. 25
8/5/24	09	• Added links to editable Procurement/ Evaluation Tools p.11 • Clarified guidance around student-facing AI use by grade span p. 17 • Added link to 0 to Infinity GPT to p. 26 • Updates to AI for Accessibility based on recent developments p. 32 • Added guidance around deep fakes and cyberbullying p.33

Date	Version	Changes and Updates
11/15/24	10	● Update: Gemini Teen now available 13 + p. 22 ● Updated EVERY framework Graphic p. 27 ● Additions to Accessibility: p.35 ● New Resources Added to the Appendix ○ AI Foundations for Educators Course added for educators Common Sense Media ○ AI Parent Guide by Common Sense Media ○ Avoiding Discriminatory Use of AI by US Dept. of Ed Office of Civil Rights
11/27/24	11	Changed from PDF to Google Doc for improved accessibility. Added long description links for all text-heavy images for screen reader compatibility Replaced 'Table of Contents' with 'Navigation' Updated Job market statistics p. 4 Added Traditional to Transformational Learning p. 31
1/2/25	12	Added 3 GPTs to support staff training on the included frameworks: ☐ CRAFT Prompt Wizard GPT p. 25 ☐ Responsible Use EVERY Time GPT p. 28 ☐ 0 to Infinity GPT p. 35
2/2/2025	13	P. 11 Updated graphic to compare LLM models Jan. 30, 2025 https://go.ncdpi.gov/ComparingLLMs P. 44 & 45 Added resources to Resources Section- Identified with 🎉 New
6/19/25	14	!!New guidance about the growing concern of AI social companions (p 18) Appendix- added new resources for K12 School Leaders and Staff Development
7/24/25	15	Significant refresh based on recent developments: ● Moved ancillary materials to separate tabs as Appendix A-E ● Updated Introduction and Leadership & Vision Intro: P. 5-7 ● Added details to the 'AI Implementation Roadmap' p. 10 ● Added 'Environmental Concerns' & table with model selection tips P. 13 ● Added 'Google Gemini Update' to P. 14 ● Refresh of 'Human Capacity' section to align with new OECD AI Literacy Framework P. 20-25 ○ Updated AI Literacy Timeline P. 20-21 ○ Updated guidance on shifting pedagogical approaches in light of AI progress P. 22-24 ● Updated guidance on prompting P. 25-26 ● New Interactive student tool for the EVERY framework P. 26 ● Updates to COPPA P. 32 ● CRAFT framework v. 2.0 with Powerups Appendix C

Date	Version	Changes and Updates
7/28/25	16	• Technical correction- updated links to images
8/28/25	17	• Updates to the AI Literacy Timeline p. 24 and Appendix A to allow the indirect use of chatbots in PK-1 (teacher modeling, garnering student input etc). Direct use of chatbots is still not recommended at this level.
11/18/25	18	New guidance about AI-Enabled Browsers (p. 6)
11/25/25	19	Added statement about the importance of computer science education (p. 8)
12/1/25	20	• Added Appendix D: Technical Assistance: Acceptable Use of AI for Special Education Teachers and Related Service Providers • NEW Resources for ADMIN: AI Chatbots in Schools: A Practical Guide to Safety, Liability, and Mandated Reporting by Innovate EdDU Appendix E
1/29/26	21	• Added introduction to the Human Agency & POG Durable Skills framework on P. 30 • Added Appendix F: Human Agency + NC POG Durable Skills (including example tasks) • New resource for district leaders: SAIFCA (Safe AI for Children Alliance)- Updated Guidance on Schools Sharing Children's Photos Online https://www.safeaiforchildren.org/guidance-on-sharing-childrens-photos/
2/2/26	22	• Added the Human Agency & Judgement Gem (Appendix F) 🔗go.ncdpi.gov/Judgement-Agency-Architect-Gem • Added guidance around autonomous agentic AI systems such as OpenClaw (p. 37)

Introduction

Public education stands at the threshold of a new era defined by artificial intelligence (AI), demanding urgent action from educators and policymakers to prepare students for a future transformed by rapidly evolving AI technologies. A forward-looking approach is necessary because the landscape of AI has expanded dramatically and this exponential pace of innovation is expected to continue into the foreseeable future.

Since the public release of the *North Carolina Generative AI Recommendations and Considerations for PK-13 Public Schools* in January of 2024, we have witnessed exponential growth in generative AI capabilities including:

- M**ultimodal AI** systems that can understand and generate realistic images, audio, and video that are virtually indistinguishable from reality
- **Human-like** AI systems that emulate human speech, intonation, and emotion
- **Enhanced memory**- AI tools such as ChatGPT now have the ability to remember all of a user's interactions with the model
- **Embedded AI** assistants that are increasingly integrated into everyday software
- A**gentic AI** that can autonomously carry out tasks, use apps and tools, and interact with the internet and a computer in sequence with little human intervention
- Powerful **reasoning models** solve more complex problems with improved accuracy.
- **AI-enabled physical AI:** Advanced dexterity and reasoning in AI and robotics;AI-enabled robots, cars, & machines that can 'see' and reason to analyze and interact with their surroundings.
- **New**-AI-enabled browsers such as Perplexity Comet, Gemini in Chrome, ChatGPT Atlas, and CoPilot in Microsoft's Edge browser all become widely available in October of 2025.

Emergent Security Risks

With these new capabilities come emergent risks, which will be added to the Data Privacy & Cybersecurity Section

AI and The Future of Work

The World Economic Future of Jobs Report for 2025 makes it clear that AI is set to be a major driver of both job creation and job displacement, necessitating significant workforce adaptation as well as significant changes in K12 education. A few of the findings of the report are:

- 170 million new jobs by 2030, a 14% increase over current numbers.
- Over 92 million jobs will be displaced, with a net employment increase of 78 million jobs.
- By 2030, 86% of employers expect AI to significantly transform their business.
- Employers expect that 39% of workers' core skills will change by 2030

- AI, big data, and networks and cybersecurity are expected to be the top 3 fastest growing skills. [1]

North Carolina's surging tech, biotech, and advanced-manufacturing sectors echo a global reality: employers now prize the seven durable skills featured in the North Carolina Portrait of a Graduate as much as technical know-how. Those competencies: adaptability, collaboration, communication, critical thinking, empathy, a learner's mindset, and personal responsibility retain their value no matter how the job market shifts, making them a must-have for every graduate. Equipping all students with AI literacy *and* durable skills, therefore, is a critical step to ensure they graduate ready for the high-skill, high-demand jobs of the future. In order to equip students with these durable skills that are necessary for their future, instructional redesign is key. The Curriculum, Instruction, and Assessment section of this document details NCDPI recommendations for redesigning instruction for the Intelligence Age.

However, AI literacy is not just about career preparation; it is also increasingly vital for informed citizenship and lifelong learning. Today's students will live the rest of their lives in a world where AI is an increasingly prominent part of daily lives, and in which it is increasingly difficult to discern whether the text, images, audio, and video they encounter online are human-generated or AI-generated deepfakes. AI-generated content can be used by bad actors to spread harmful misinformation, sway elections, perpetrate scams and frauds, and harm reputations. Being able to evaluate all media critically and making ethical decisions about the media one consumes, creates, or shares is an imperative for our students and for our democracy. Modern AI systems such as GPT-4, are "strikingly close to human-level performance" and can already pass tough exams, write convincingly human essays, and chat so fluently that many people find their output indistinguishable from a person's.[2] See appendix E for excellent resources on teaching students about deepfakes.

> Artificial Intelligence (AI) has become a widely used tool in our everyday life, including for learning, personalised assistance, and entertainment. Therefore, young people must be able to understand how AI works, its societal impact, and how to use it ethically in order to be prepared for a society and economy in the age of AI.[3]
> *AI Literacy Framework for Primary and Secondary Education*

As also pointed out in the AI Literacy Framework for Primary and Secondary Education, "AI is not neutral; it is shaped by the decisions of those who build it." This underscores the importance of the human element in all choices made during design, data selection, labeling, and algorithm development and in teaching educators and students to critically evaluate all AI outputs.

By learning how AI systems work and what their limitations are, students will be better prepared to engage as thoughtful, ethical citizens in an AI-driven society. As a UNESCO report noted in 2024, "understanding the

[1] World Economic Forum. *Future of Jobs Report 2025*. Insight Report, World Economic Forum, 2025, pp. 12–18.
[2] Bubeck, Sébastien, et al. "Sparks of Artificial General Intelligence: Early Experiments with GPT-4." arXiv,https://arxiv.org/pdf/2303.12712 2023.
[3] Organisation for Economic Co-operation and Development. Empowering Learners for the Age of AI: An AI Literacy Framework for Primary and Secondary Education (Review Draft). OECD, May 2025, https://ailiteracyframework.org/.

basics of AI is essential for everyone to thrive in this rapidly evolving landscape."[4] In short, AI literacy is now a cornerstone of civic literacy. It encompasses not only technical knowledge but also digital citizenship, internet safety, ethics, and an understanding of the societal impacts of AI.

It is also important to acknowledge that artificial intelligence does not exist apart from computer science. To ensure students understand AI equitably and responsibly, educational leaders are encouraged to provide broad access to computer science across K–12. When educators and students demystify AI systems, look past the "magic," and build a conceptual understanding of how these tools work, they gain the skills needed to participate as ethical users and creators of emerging technologies. AI literacy is most effective when paired with computer science instruction, with computational thinking serving as the bridge between both areas. G.S. 115C-12(9d) requires the State Board of Education to include instruction in computer science in the Standard Course of Study for middle and high school students. It also requires every Public School Unit to offer an elective introductory computer science course in middle school and requires every high school student to complete at least one computer science course. The 2026–2027 school year is the full implementation year, and no PSUs will be eligible for a waiver.

In light of these facts, NCDPI encourages public school units to responsibly embrace AI and incorporate AI Literacy for all staff and students. The purpose of this document is to support education leaders and educators in all of our Public School Units in responsibly adopting AI technologies to better prepare North Carolina students for an everchanging world.

> "The North Carolina Department of Public Instruction (NCDPI) advocates for the responsible integration of AI technologies in education, aiming to cultivate an educational environment that empowers each individual to reach their full potential and develop a lasting passion for continuous learning."
> Dr. Vanessa Wrenn, Chief Information Officer; NC Department of Public Instruction

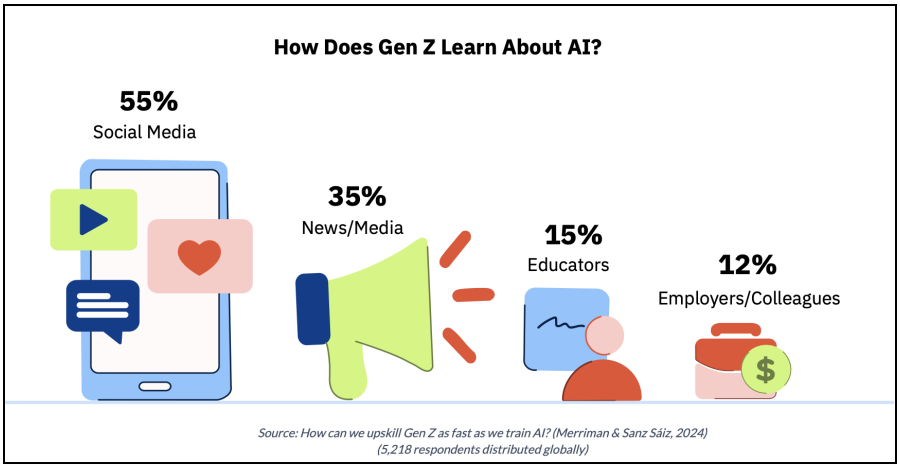
[4] UNESCO. *AI and Education: Guidance for Policy-Makers*. 2024. https://unesdoc.unesco.org/ark:/48223/pf0000385348.

Leadership and Vision

Leadership is not just about responding to change, it's about shaping it. As generative AI accelerates the pace of transformation across every sector, education leaders in North Carolina are uniquely positioned to guide that change in ways that ensure equity, opportunity, and excellence for every learner. School boards, superintendents, district teams, principals, and policy leaders must work together to move beyond reactive policies and instead set bold, forward-thinking strategies for AI implementation. Our goal is not just to keep up with AI. It is to lead its responsible integration with purpose.

Closing the Digital Divide in an Age of AI

The TeachAI Toolkit reminded us that, "Attempts to enforce broad bans on AI are futile and only widen the digital divide between students with independent access and those dependent on school or community resources."[5] In the past, the digital divide centered on access to the internet and devices. Today, that divide includes AI access, AI literacy, and opportunities to learn with AI tools. If schools don't provide equitable AI education, many students will be left behind, particularly those from low-income, rural, or historically marginalized communities who already face the most obstacles in attaining success.



As this graphic from the AI Literacy Framework demonstrates, our students are already using AI and learning about AI in real time, scrolling TikTok hacks, testing Snapchat's My AI, and watching YouTube explainer clips. Yet most of that exposure happens outside school walls, without structured guidance on accuracy, ethics, or responsible use. To close this critical gap, the AI Literacy Framework, published in 2025 by the European Commission and the Organisation for Economic Co-operation and Development (OECD), outlines the knowledge, skills, and attitudes students need to navigate, create with, and critically evaluate AI systems, and it places educators at the center of teaching safe, ethical, and effective practice. Integrating its principles will ensure North Carolina students learn about AI not just from social media, but from trained teachers who can scaffold critical thinking, equity, and responsible innovation across every grade and subject.[6]

[5] *TeachAI Toolkit*. Code.org, 2023, https://www.teachai.org/toolkit.
[6] OECD, *Empowering Learners for the Age of AI: An AI Literacy Framework for Primary and Secondary Education (Review Draft)*, OECD, May 2025, *AILit Framework*, https://ailiteracyframework.org/wp-content/uploads/2025/05/AILitFramework_ReviewDraft.pdf.

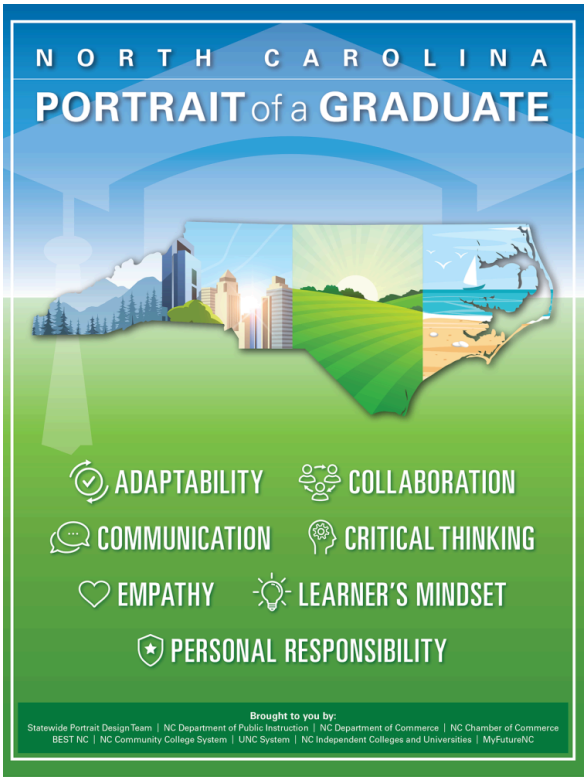
Our public schools must be the great equalizers. By offering all students and educators access to safe, age-appropriate, and ethically vetted AI tools and high quality instruction, we ensure that every learner, regardless of zip code, family income, disability, or any other factor is prepared for the world they will inherit. To do this, leadership teams must define a clear AI vision, build local policy, vet AI tools for privacy and compliance, and establish professional development pathways for educators. In doing so, schools will uphold their duty to both close opportunity gaps and foster future-ready learning environments that empower every student.

Portrait of a Graduate and the Leadership Imperative

The seven durable skills outlined in North Carolina's *Portrait of a Graduate;* adaptability, collaboration, communication, critical thinking, empathy, learner's mindset, and personal responsibility are not only skills students need to thrive with AI. They are also the competencies that educational leaders must model in this moment of transformation.[7] When leaders embody these skills, they model what it means to be future-ready, not just for students, but for staff and families. North Carolina's public school leaders are not just adapting to technology they are defining the role of education in the age of AI**.** It is through thoughtful, human-centered leadership that schools can remain places of creativity, connection, and equity even as our tools become increasingly powerful.

School and district leaders should also model these durable skills:

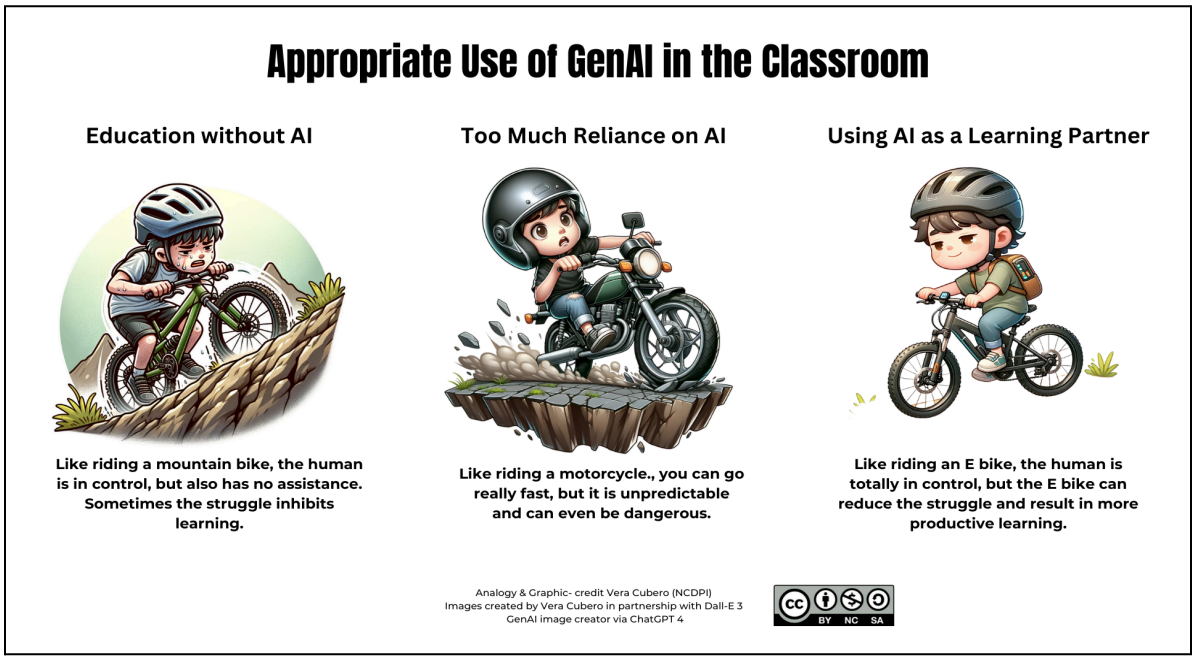
- **Adaptability**: Adjust policies as AI evolves.
- **Collaboration**: Build cross-functional teams for policy, training, and curriculum.
- **Communication**: Engage communities with clarity, transparency, and empathy.
- **Critical Thinking**: Evaluate AI tools rigorously.
- **Empathy**: Center AI policy, guidelines, and implementation with a human focus, inclusion, and accessibility.
- **Learner's Mindset**: Stay curious and iterative as new models emerge.
- **Personal Responsibility**: Lead with integrity and foresight.



[7] North Carolina Department of Public Instruction. *Portrait of a Graduate*. 2021,https://www.dpi.nc.gov/districts-schools/operation-polaris/portrait-graduate

Appropriate Use of GenAI in Education

In 2023, the U.S. Department of Education popularized the metaphor of using AI tools in education as riding an electric bike, a partnership that multiplies the user's effort while keeping the human in control.[8] This metaphor remains powerful, but we have adapted it to reflect the student experience. The key takeaway is this: AI should not replace the rider, it should empower them.



Access the image: https://go.ncdpi.gov/AI_in_Education-3Bikes

Today's AI tools can be integrated into instruction with the right human guardrails to support student creativity, differentiation, inquiry, and agency. But as AI grows more agentic and lifelike, our leadership must ensure human values remain at the center of teaching and learning.

The Mindset Shift: From Restriction to Transformation

Many education leaders still feel pressure to restrict, block, or slow the use of AI in schools out of fear of cheating, bias, hallucinations, or ethical concerns. These concerns are legitimate, but they must not paralyze progress. Instead, leaders must embrace a balanced, strategic mindset that centers on three principles:

- ☐ **Protect and Prepare**
  Ensure safety, privacy, and transparency while also preparing students for the real world
- ☐ **Empower, Don't Replace**
  Use AI to amplify human potential, not to bypass thinking or creativity.
- ☐ **Lead with Vision and Purpose**
  Set a clear local vision for what AI-enhanced education looks like in your community.

[8] *Artificial Intelligence and the Future of Teaching and Learning: Insights and Recommendations*. U.S. Department of Education, May 2023, https://tech.ed.gov/ai-future-of-teaching-and-learning/.

Districts should establish AI implementation teams that include a wide range of education leaders, teachers, students, families, and community voices. Leadership means acknowledging the risks of AI, but not being defined by them.

The role of leadership in 2025 is not to answer every question about AI, but to create the conditions for ongoing inquiry, experimentation, and improvement. The rapid pace of AI evolution requires that school systems become more agile, reflective, and student-centered.

AI Implementation Roadmap for North Carolina's Public Schools

NCDPI strongly recommends that each PSU follow this implementation roadmap, which includes creating a plan for building the human capacity/AI literacy of all staff and students and creating public-facing generative AI guidelines that ensure a common understanding of how generative AI tools may be used within the education system to further student learning.
The suggested roadmap for the responsible implementation of generative AI tools in North Carolina's Public Schools was adapted from AI for Education's 'AI Roadmap for K12 Schools'.[9]

1. **Establish a Foundation**
   - Host an introductory meeting & training for district & school leaders, board, student leaders & other key decision makers
   - Create a cross functional team & develop detailed PSU-wide AI guidelines to guide the responsible implementation of AI into public schools. Include leaders, teachers, students, & community members
   - Review current EdTech providers deploying generative AI to vet their safety, privacy, reliability, and efficacy, to determine if they are appropriate to be used for your school, and which users they will be open to based on their Terms of Service and school or district policies
2. **Develop Your Staff:**
   - Provide basic AI literacy training on what AI is and is not, how it works at a basic level, its benefits as well as its limitations and concerns, how to use it safely, ethically, and effectively and how to guide students in safe and ethical use.
     - While this basic understanding is an important starting point, educators should continue to be supported and encouraged to use AI tools in their particular job contexts, provided opportunities to share and collaborate with other educators, and provided ongoing support as they adapt their instruction to the new realities of the AI age in which most traditional classroom and homework assignments can be created in seconds with AI and can not be detected.
     - See the Appendix for vetted training resources.

[9] AI Adoption Roadmap for Education Institutions." *AI for Education*, 29 Nov. 2024, https://www.aiforeducation.io/ai-resources/ai-adoption-roadmap-for-education-institutions. Accessed 7 May 2025.

- This professional learning must be differentiated, allowing educators at all levels from beginners to early adopters to engage meaningfully with AI based on their comfort, content area, and student population. Districts are encouraged to use *microcredentialing pathways, coaching supports, and educator-led showcases* to build internal expertise.
- **Provide Ongoing Support**
  Encourage PLCs or sandbox periods where teachers can use AI tools for real tasks, lesson design, resource creation, accessibility support and reflect in PLCs or coaching cycles.

3. **Educate Students and the Community**
   - Once educators have had professional development and time to develop their own skills and knowledge, begin educating the community about generative AI, PSU policies and guidelines, appropriate and safe use of generative AI, and the importance of AI literacy.
   - **AI in the Classroom: Empower Students with Oversight.** Allow students to use AI in age-appropriate ways (see AI Literacy Timeline below) that are aligned to state guidelines, PSU policy, PSU guidelines, and instructional goals. Ensure students have foundational AI literacy before use.
4. **Assess and Progress**
   Create plans and a cadence to review and update existing guidance as needed based on new developments and the experiences of your stakeholders.

PSU Generative AI Policy vs AI Guidelines

Balancing AI's Benefits with Ethical Considerations

Rather than creating strict restrictions, effective guidelines focus on empowering students and educators as well as ensuring ethical and responsible use.

- Academic Integrity: AI guidance should help educators adapt instruction and assessment to account for ubiquitous AI, while also teaching personal accountability and academic integrity.
- Ethical AI Use: Students should learn to critically analyze AI outputs and evaluate them for potential harmful biases.
- Data Privacy & Security: Schools must safeguard student information, address cybersecurity, and prioritize personal safety.

In a public K–12 school setting, AI policy outlines the rules and requirements; what *must* be done to ensure legal compliance, data privacy, and responsible use of generative AI. It includes enforceable directives aligned with state and federal laws (e.g., FERPA, COPPA), covering access controls, tool approvals, and disciplinary procedures. AI policy may be compared to the guardrails, setting firm boundaries to keep everyone safe.

In contrast, AI guidelines serve as a roadmap on what *should* be done to guide implementation and promote best practices. They provide a shared vision for how generative AI can be integrated into teaching and learning, ensuring that all staff and students become AI literate and can use AI safely, ethically, and effectively. Guidelines support professional development, curriculum alignment, and equitable access, empowering educators to rethink instruction with a focus on digital citizenship and future readiness.

AI Guidelines should be public-facing, apply to all stakeholders, and be flexible as AI is changing rapidly. They should help build a common understanding of appropriate AI use and common language among all stakeholders. As part of creating district-wide guidance, a comprehensive AI Literacy training plan should be developed to ensure that all users are trained specifically in the responsible, safe, and ethical use of generative AI. This is ultimately an exercise in AI project management & digital citizenship, selecting the right tools, setting guard-rails, and modelling civic-minded technology use for staff and students.

To support our PSUs in creating or updating their generative AI guidelines, the Office of Digital Teaching and Learning held in-person support workshops in the spring of 2025 for AI development teams and created a set of resources and templates (Google & Canva Formats). These resources and templates may be found in this shared Google Folder.

Developing Generative AI Guidelines at Your PSU

Adapted from AI for Education 'Drafting a Generative AI Policy at Your School' [10]

Guiding Questions

- How are students using generative AI? How are teachers using generative AI?
- What was the impact of the release of ChatGPT and other generative AI tools on your school?
- What are your biggest concerns about generative AI this year?
- What are the major ethical concerns your school has about GenAI?
- How can you adapt your current academic integrity policy to include GenAI?
- How can the use of generative AI tools help students with IEP, 504, language barriers, and other learning needs?

Key Steps

- Create a common understanding of Generative AI for all stakeholders through AI literacy.
- Design a clear set of guidelines that work for both students and teachers.
- Partner with stakeholders, including students, to develop and socialize the policy.
- Identify that the policy is a work in progress.
- Provide examples of the policy in stakeholder-specific language.

What to Include

- Appropriate Use of generative AI Tools
    - Identify what types of assignments and assessments can be AI-assisted with teacher approval and which must be completed without GenAI support
    - Provide examples of inappropriate use cases and appropriate use cases.
- Tracking and Citing generative AI

[10] "Guide to Developing an AI Policy for Your School." *AI for Education*, 29 Nov. 2024, https://www.aiforeducation.io/ai-resources/ai-policy-guide-school. Accessed 7 May 2025.

  - Provide guidelines on how students and teachers should track and cite their use of GenAI for their school work/practice
  - Provide examples of proper AI disclosure statements and citations in the correct format
- Data Privacy and Security
  - Clearly define what student, teacher, and school personally identifiable information (PII) includes.
  - Remind all users that PII is off-limits to generative AI tools (including uploading or pasting in of data into genAI models as well as typing it in a chat)
  - Provide a refresher for educators of student data privacy & FERPA
  - Add references to deep-fake images, audio, and video, including deep fake nudes or explicit content to students, faculty, or staff in the existing policies on cyber bullying/ bullying (see p. 35).

Strategies for Introducing the Guidelines to various Stakeholders…

Event	Primary Audience	Delivery Mode	Core Message & Activity
Kick-off Assembly	Faculty & district/school leaders	15-minute rally during pre-service week	Launch vision for responsible GenAI; preview benefits and risks; share one success story; point staff to full guidelines.
Faculty or PLC Meetings	Teachers & support staff	45-60 min workshop	Deep-dive into policy; explore case studies and debates in small groups; co-create classroom "dos & don'ts."
Open House / Parent Meeting	Parents, guardians, community members	Interactive presentation with live demo	Explain why AI matters for students; outline safeguards; collect Q&A; hand out FAQ one-pager.
AI Literacy Week	Whole school (students & staff)	Themed week (posters, lunchtime demos, daily tips)	Build common language; showcase student-made debates or short videos on safe AI use.
Classroom Scenarios	Students (by class/grade)	Teacher-guided role-play & prompt analysis	Teach → Model → Discuss → Reinforce acceptable versus unacceptable AI use; students label examples.
Policy Exploration Workshops	Mixed stakeholder teams	Half-day design sprint	Map current integrity policy to the AI era; draft addendum; identify support needs.

Event	Primary Audience	Delivery Mode	Core Message & Activity
Peer-Educator Campaign	Student leaders	Micro-lessons, posters, graphics in halls & LMS	Students champion common terminology; keep reminders visible all year.

Environmental Concerns

In addition to concerns regarding student well-being and ethics, all users of AI tools should understand the effects that AI technologies have on the environment and be thoughtful about their usage. While advancements are being made to reduce the environmental cost of developing AI models and newer models are increasingly more efficient when the end user engages with them, every AI prompt carries an environmental cost. Generally speaking, that cost increases with the complexity of the task and the longer it takes the model to provide an answer, the higher the environmental cost. Therefore, it is important for users to have a basic understanding of the various models, and what tasks each is best suited for. OpenAI's next ChatGPT upgrade, GPT5, expected in August 2025, will introduce a hybrid, reasoning-based system that automatically selects the best model for each prompt yet still lets users override that choice streamlining workflows while encouraging mindful use of heavier models.[11]

See the information below for quick guidance on which models to use for which purposes.

Quick Guidance on Model Selection:

	Base (Non-reasoning) Models - Generally available on Free plans	Reasoning Models	Deep Research Models
Current models	ChatGPT 5.3 Gemini 3 Flash, Claude Opus 4.5.5 Haiku, Perplexity Sonar	ChatGPT 5.2 Thinking Gemini 3 Flash Pro, 3 Pro Experimental Claude Opus 4.5	ChatGPT, Gemini, and Perplexity all call it 'Deep Research'
When to use	For speedy checks, brainstorming, or auto-generating simple materials these models are cheapest and least energy-intensive.	when the task truly demands deliberate thinking, multi-modal analysis, or step-by-step logic, chain of thought reasoning	Reserve for big jobs like where automated sourcing and synthesis save hours but require much longer runtimes.
Example Use Cases	Grammar tweaks, flash-card lists, exit-ticket quizzes, lesson outlines, searches, etc	math proofs, cross-document feedback, code debugging,long-context image-text analysis	Literature reviews, policy briefs, annotated bibliographies, capstone projects
Example	Draft a 250-word summary	Design a 3-day inquiry lesson on	"Generate a policy brief (< 1,500

[11] "Introducing OpenAI o1." *OpenAI*, 5 Dec. 2024, https://openai.com/o1/. Accessed 7 May 2025.

Prompt	of Chapter 3 of Hatchet at roughly Lexile 750L for a 5th grade student. End with one comprehension question and keep the tone upbeat.	forces & motion for 7th-grade science (NGSS MS-PS2-2). Work step-by-step: 1) anchor phenomenon; 2) hands-on investigation; 3) formative checks; 4) student reflection. Anticipate two common misconceptions and explain how each activity addresses them. After thinking, present a polished lesson plan.	words) for district leaders on AI-powered reading interventions in K-8 (2020-present). Include: a 5-bullet executive summary; an annotated bibliography of ≥ 8 peer-reviewed studies; a comparison table of study design, sample size & effect size; gaps in current research; and MLA citations in-text plus a Works Cited."
Why it fits the model	Single-shot content creation with no multi-step reasoning or external research needed.	Chains of thought, task decomposition, alignment to standards, hypothetical reasoning	Requires autonomous web search, multi-source synthesis, structured citations—work suited to deep-research agents.

Evaluating Generative AI Ed Tech Tools

Generative AI guidelines, policies, and Data Sharing Agreements should be carefully evaluated when making decisions about which tools to allow for staff and students. As with any digital tool, Public School Units should follow the terms of service, including appropriate age limits and seeking parental consent if required. It is recommended to consult with the technology director and, if needed, legal counsel, in evaluating the terms of service.

Most Large Language Models such as ChatGPT, Microsoft CoPilot, and Perplexity are currently prohibited for ages under 13 per their terms of service, but are allowed for ages 13 and over with varying parental/guardian permission requirements.

Google Gemini Update: Gemini for Education recently made their Gemini models a core service with higher data security and available to all Google for Edu plans for free. They also expanded their Gemini app and NotebookLM for all ages on Edu domains (based on Google Admin settings at the PSU), though NCDPI continues to recommend that grades Pk-5 do not have any direct interaction with generative AI chatbots.

If your PSU decides to utilize a tool with students that requires parent/guardian permission, or if you decide to require parent/guardian permission for other tools, you may choose to customize this Example AI Permission Form. In some cases, it may be appropriate to include AI tool permissions in other technology policies. Regardless of whether an AI permission form is deemed necessary by the PSU, all staff and student users as well as all parent/guardians should be made aware of the school or PSU's generative AI guidelines, including any academic integrity or acceptable use guidelines that reference the use and disclosure of generative AI and plagiarism. These guidelines should also be signed by both students and parents.

"Built-for-education" models:

Many school and district leaders continue to be understandably hesitant to allow tools such as ChatGPT for students even if they are 13 or older due to well-founded privacy and safety concerns. However, built-for-education models are becoming more readily available and may provide a safer (though not foolproof)

way to allow older students to learn with AI. Currently, the only one of the large frontier model companies that provides an education version of their Large Language Model is Google's, which now provides their Gemini 3 free for all Google Workspace for Education users with enhanced data privacy including no training on chats. Google also allows for use for all ages with additional protections for under 18 users on Edu platforms (pending PSU policies and permissions). However, NCDPI continues to recommend against any interaction with generative AI chatbots for our PK-5 learners.

Several other built-for-education platforms (e.g., Khanmigo, SchoolAI, Magic School, Skillstruck Chat for Schools, Brisk etc) wrap frontier models- usually ChatGPT- in additional K-12 safeguards, but still require PSU vetting and AI-literacy training. As discussed in the previous section, the capabilities of AI models have drastically accelerated while costs have declined, resulting in more ubiquitous access to very powerful AI tools that is sure to continue to increase into the future.

Social AI Companions: A Growing Concern

A new genre of "social AI companions" is moving from text-only chat to fully multimodal interactions and have changed the way people use AI. Character AI, for instance, is rolling out character bots that converse through video and voice, blurring the line between simulated friendship and real-world relationships. Common Sense Media has rated social AI companions as an 'unacceptable risk' for anyone under 18 for the reasons below and NCDPI agrees with this assessment. These tools raise significant red flags that school leaders must understand and address.[12]

The latest data from *Harvard Business Review* for 2025 showed the largest increase in personal and professional support, with 'therapy/companionship' rising to the most common use case, 'organizing my life' and 'finding purpose' as the second and third most common use.[13] A recent study by Common Sense Media found that 72% of teens have used AI companions, with 52% using them multiple times a month.[14] As AI evolves to meet deeply human needs, schools must evolve too, preparing students not only to use AI tools, but to navigate complex ethical, emotional, and societal implications.

NCDPI strongly discourages the use of AI tools such as CharacterAI and other role building/role playing AI platforms for anyone under the age of 18, especially for therapy or companionship. Still, we must face the reality that many ***are*** using it this way or will use it this way in the future. Education institutions should ensure that today's students have a solid foundation in AI Literacy to guide them to making safe, ethical, and responsible decisions as they will live their entire lives in an AI-enabled world.

Mitigating the risk: Because these risks outweigh any instructional benefit, social AI companion apps should be blocked on PSU-managed devices and networks, and educators should incorporate digital-citizenship lessons that help inform students, parents, and guardians of these risks.

[12]"Social AI Companions." *Common Sense Media*, https://www.commonsensemedia.org/ai-ratings/social-ai-companions. Accessed 7 May 2025.
[13] "Top 10 GenAI Use Cases: 2024 vs. 2025." *Harvard Business Review*, Filtered.com, 2025. Accessed 8 May 2025.
[14] "Talk, Trust, and Trade-Offs: How and Why Teens Use AI Companions." *Common Sense Media*, https://www.commonsensemedia.org/research/talk-trust-and-trade-offs-how-and-why-teens-use-ai-companions . Accessed 24 July 2025.

Key Concerns for Pk-13 Students:

- **Emotional manipulation & dependency**- Companion bots are engineered to foster intimacy, encouraging students to confide deeply and potentially displacing healthy peer or adult bonds.
- **Sexual content risk-** Independent reviews show many popular apps can be prompted to shift into explicit role-play, sometimes involving minors, after only a few prompts.
- **Mental-health harms-** Chatbots have provided content that encourages self-harm, disordered eating, or running away, highlighting the danger of unmoderated, always-on "support."
- **Unqualified counseling-** Students may treat bots as therapists; advice is not evidence-based and can reinforce harmful behaviors or spread medical misinformation.
- **Data Privacy & compliance gaps-** Most apps lack robust age verification, creating FERPA/COPPA vulnerabilities when used on school networks or devices.
- **Addictive design & screen-time**- Instant emotional feedback keeps students engaged for hours, undermining focus, sleep, and in-person socialization.
- **Personal information disclosure-** Students may build trust with AI Companion and disclose PII

Human Capacity

AI is already ubiquitous in all aspects of our daily digital lives.

One can't go online or on social media without encountering AI-generated content, even if it is not always recognized as AI-generated. Our students' levels of AI literacy will have profound impacts on work, education, the economy and all aspects of their lives in an AI-enhanced world in which humans interact with AI increasingly more each day and in which the old mantra 'seeing is believing' no longer holds true.

Generative AI is changing not just the tools we use, but the very nature of how we teach and learn. As AI grows more ubiquitous and more capable, human capacity becomes even more essential. Building human capacity means equipping all educators, staff, and students with the skills, mindsets, and confidence to use AI responsibly, creatively, and effectively. Educators will need to take on the roles of ethical guides, critical evaluators, and learning designers.

This urgent need for widespread AI literacy has been recognized at the highest levels of the US government. President Trump signed an executive order on April 23, 2025, titled "**Advancing Artificial Intelligence Education for American Youth**". This order establishes artificial intelligence education as a national priority for K-12 schools and aims to promote AI literacy and proficiency among American youth to prepare them for the future workforce. Key components include the creation of a White House Task Force on AI Education, a Presidential AI Challenge, the development of K-12 AI education resources through public-private partnerships, enhanced teacher training on AI, and the expansion of AI-related apprenticeship programs.[15] While this is a new development, NCDPI will monitor it closely and update this guidance as needed.

AI Literacy Is Now an Imperative

Failing to train educators and students in AI leaves the most vulnerable behind, widens existing inequities, and reduces future opportunities. In addition to creating policy and guidelines to steer the responsible implementation of generative AI, PSUs must also develop an effective plan to ensure that all students and staff develop AI literacy. NCDPI has adopted the AI literacy definition in the newly released AI Literacy Framework by TeachAI and other global partners.

> *AI literacy represents the technical knowledge, durable skills, and future-ready attitudes required to thrive in a world influenced by AI. It enables learners to engage, create with, manage, and design AI, while critically evaluating its benefits, risks, and ethical implications*. (AILit Framework, 2025) [16]

[15] "Advancing Artificial Intelligence Education for American Youth." *The White House*, 23 Apr. 2025, https://www.whitehouse.gov/presidential-actions/2025/04/advancing-artificial-intelligence-education-for-american-youth/. Accessed 7 May 2025.

[16] Organisation for Economic Co-operation and Development. *Empowering Learners for the Age of AI: An AI Literacy Framework for Primary and Secondary Education (Review Draft).* OECD, May 2025, https://ailiteracyframework.org/.

The AI Literacy Framework includes Four Domains of AI Literacy: Engaging with AI, Creating with AI, Managing AI, and Designing with AI to help clarify different ways that humans may interact with AI tools.
The AI Literacy Framework interweaves Knowledge, Skills, and Attitudes throughout these four domains and twenty two competencies to provide a durable foundation for AI literacy. These knowledge, skills, and attitudes should underpin ethical and responsible AI implementation and AI literacy in K12 education:

- **Knowledge** – grasp how AI processes data, differs from human thinking, and potential concerns such as AI's potential to inherit or amplify bias
- **Skills** – apply critical thinking, creativity, and computational thinking to use AI effectively and ethically, shaping its role in daily life
- **Attitudes** – cultivate curiosity, adaptability, a habit of questioning AI outputs, and a commitment to responsible use

Educators must also have an understanding of how AI is evolving.

The generative AI of 2023 tools like ChatGPT that could summarize text and write emails is quickly being eclipsed by new reasoning models (like Claude Opus 4.5 and GPTo3), which analyze, plan, and multi-step reason across tasks. These models go beyond prediction; they simulate chains of logic and perform deeper analysis, allowing students and educators to explore more complex ideas together. In addition, multimodal AI models now process images, text, audio, video, and code in a single interaction and even utilize those multimodal files that are added to the chat to help reason and produce an output. This opens doors to more accessible, creative, and inclusive learning.
Emerging agentic AI systems that are capable of autonomous task execution and computer use are entering experimental use in productivity and education. Educators must be prepared not only to understand these tools, but also to teach, guide, and model their use ethically, especially as models begin exhibiting increasingly human-like outputs, including emotional mimicry in voice and character interactions.

Invest in AI Literacy Training for ALL staff and students FIRST before investing in tools.

Prioritizing AI literacy equips educators and students with the critical thinking, ethics, and adaptability needed to evaluate any future technology. When a solid understanding comes first, rapidly evolving tools become opportunities not obstacles to responsible, creative learning.
To ensure responsible, safe, and ethical implementation of generative AI, staff and students who are of the age to use generative AI should be trained on safe, effective and responsible use including the following key aspects, each of which is covered in more detail in the 'Curriculum and Assessment' section of this document.

- Alignment with PSU and school-based guidelines/policies governing generative AI usage.
- Building a basic understanding of generative AI: how it works, a balanced view of its power to transform learning and the concerns and limitations of current models.
- How AI impacts education, including potential future implications on the job market.
- Effective communication with the Large Language models (prompting).
- Safe, Ethical Use and Disclosure of Use and PSU and school guidelines.
- AI as a Learning Partner to support curriculum standards, enhance human creativity & critical thinking.

Professional Development for the Age of AI

In this new landscape, educator professional learning must be ongoing, immersive, and job-embedded in the day-to-day work of all educators. The rapid pace of AI development demands an agile workforce, constantly updating its own understanding, adapting pedagogy, and modeling safe, ethical practices.North Carolina strongly recommends a four-stage AI human capacity-building plan based on the AI for Education "AI Adoption Roadmap for Schools and Districts"[17]

North Carolina's four-stage plan builds AI capacity by first equipping educators with foundational literacy, then sustaining their growth through ongoing support, and finally extending responsible, age-appropriate AI use to students and the wider community

Modeling the Portrait of a Graduate

Just as students are expected to develop North Carolina's seven **durable skills**, educators must also **model these competencies** as they adapt to AI-rich environments:

- **Adaptability**: Navigating changing tools and workflows
- **Collaboration**: Sharing strategies and co-creating policy
- **Communication**: Explaining AI's role clearly to families and students
- **Critical Thinking**: Vetting tools, verifying AI outputs, identifying bias
- **Empathy**: Considering equity, accessibility, and learner voice
- **Learner's Mindset**: Embracing new technologies with curiosity
- **Personal Responsibility**: Ensuring ethical, safe, and transparent use

As leaders in learning, educators must embody these traits to guide students through the exponential shifts in all areas of our lives resulting from AI advancements.

Laying the Foundation for Student AI Use

Before students engage directly with AI tools, educators leading their use must be AI literate and prepared to teach and support its responsible use**.** PSUs should provide time and support for teachers to build their own AI literacy through professional development and job-embedded AI use as well as time to review tools, ask questions, express concerns, and give feedback before student implementation. AI Literacy will require an increased emphasis on media literacy, critical evaluation of bias / hallucination, and ethics. No student regardless of age should interact with AI in a school setting without adult guidance, aligned policies, and foundational understanding (basic AI literacy), or outside of PSU AI guidelines.

All students can and should learn ABOUT AI in age-appropriate ways before they are ready to learn WITH AI.

[17] "AI Adoption Roadmap for Education Institutions." *AI for Education*, 29 Nov. 2024, https://www.aiforeducation.io/ai-resources/ai-adoption-roadmap-for-education-institutions. Accessed 7 May 2025.

This approach affirms that AI literacy is not optional; it is central to the responsible integration of generative AI. Technology alone cannot transform education; it is only through human intelligence, reflection, and ethical use that these tools can be used to enhance equity, engagement, and opportunity. We have provided a list of high-quality, free professional development for education leaders, teachers and students in the appendix of this document. Please see the Appendix F for these recommendations.

To ensure responsible, safe, and ethical implementation of generative AI, staff and students who are of the age to use generative AI should be trained on safe, effective and responsible use including the following key aspects, each of which is covered in more detail in the other sections of this document.

- Alignment with PSU and school-based guidelines/policies governing generative AI usage.
- Building a basic understanding of generative AI: how it works, a balanced view of its power to transform learning and the concerns and limitations of current models.
- How AI impacts education, including potential future implications on the job market.
- Effective communicating with the Large Language models (prompting).
- Safe, Ethical Use and Disclosure of Use and PSU and school guidelines.
- AI as a Learning Partner to support curriculum standards, enhance human creativity & critical thinking.

From AI Awareness to AI Fluency: NCDPI AI Literacy Timeline PK–13 and Educators: v. 2.0

Please refer to the full NC AI Timeline Guidance in Timeline Guidance in Appendix A: AI Literacy Timeline v. 2.0

The updated AI Literacy Timeline incorporates the 'Knowledge Skills and Attitudes' as well as the four domains from the AI Literacy Framework to better clarify how students should be engaging with AI systems based on grade span.[18] This timeline supports North Carolina educators in scaffolding AI instruction responsibly, ensuring safe, age-appropriate use that aligns with state goals for digital citizenship, personalized learning, and future-ready graduates.

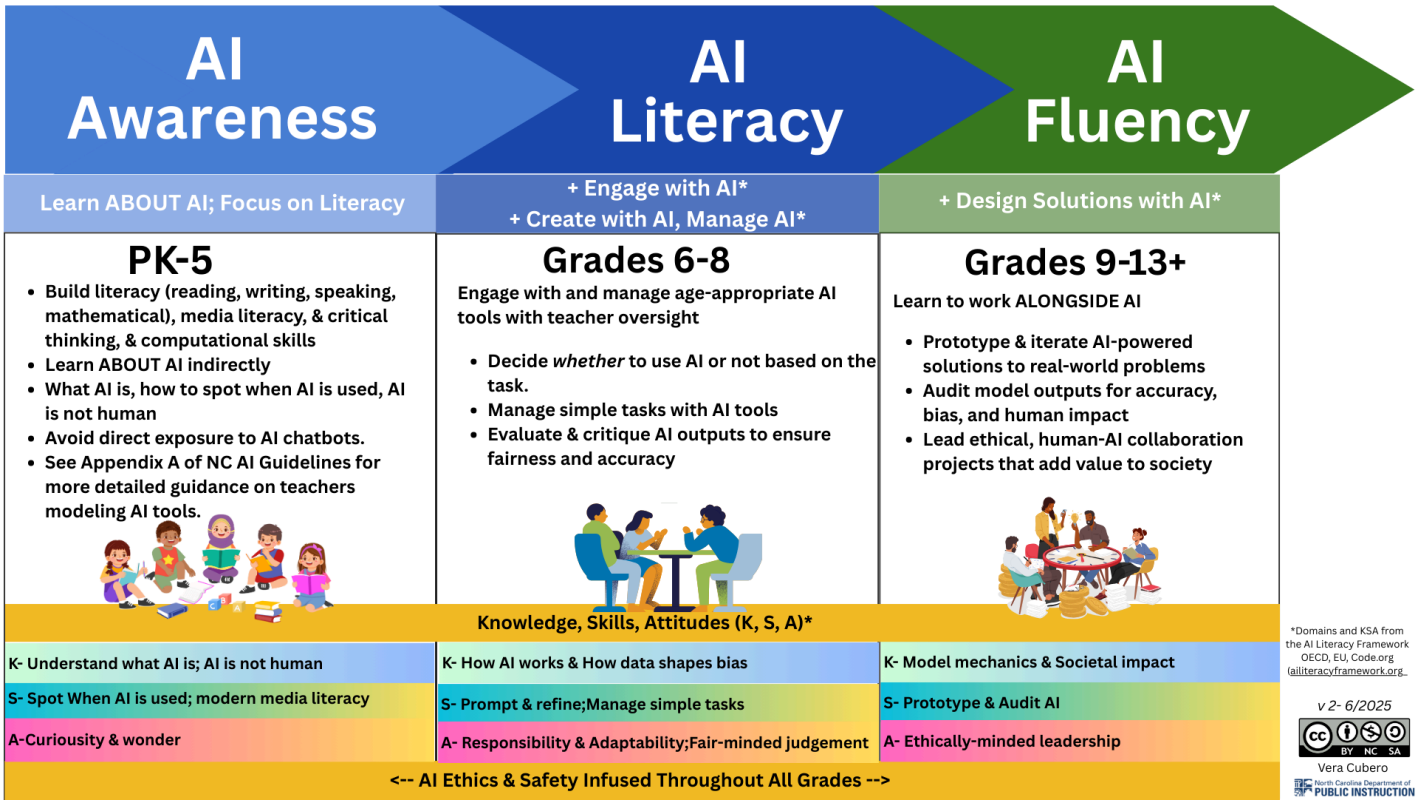
The goal is to ensure age-appropriate, safe, and meaningful integration of AI starting with simple awareness in early years, beginning AI literacy in upper elementary, building on that understanding in middle school, and achieving AI fluency in high school and beyond. Below is a breakdown of each bucket and grade band, with descriptions and practical examples for implementation.

NCDPI recommended progression of AI-related skills in education can be structured into three developmental buckets: **AI Awareness**, **AI Literacy**, and **AI Fluency**.

[18] Organisation for Economic Co-operation and Development. *Empowering Learners for the Age of AI: An AI Literacy Framework for Primary and Secondary Education (Review Draft).* OECD, May 2025, https://ailiteracyframework.org/.

AI Awareness: Learn ABOUT AI with focus on literacy (Grades PK–5)

- **PK– students** begin by learning *about* AI through literacy-rich, teacher-led activities without any chatbot use or exposure. The focus is on developing the literacy, curiosity, and critical thinking skills needed to understand how AI exists in the world around them.
- **Grades 6–8 students** begin developing deeper AI literacy by actively learning how generative AI systems work, identifying limitations and biases, and interacting with AI tools in structured, supervised settings. The focus shifts to responsible prompting, ethical use, fact-checking, and critical evaluation of AI-generated content.
- **By high school (grades 9–13+)**, students move toward *working alongside* AI, using it as a collaborative partner to solve problems, generate ideas, and engage in responsible co-creation. At this level, students should be fluent in ethical use, transparency, and academic integrity, and they should be able to critically oversee and revise AI-generated content.



- Download this image for printing: go.ncdpi.gov/NC-AI-Lit-Timeline-v2
- Please refer to the full NC AI Timeline Guidance in Appendix A: AI Literacy Timeline v. 2.0

Curriculum, Instruction, and Assessment

To ensure our students are prepared for the emerging Intelligence Age, North Carolina's approach to curriculum, instruction, and assessment must fundamentally evolve to leave behind the rigid industrial-era models and embrace educational frameworks that prioritize critical thinking, ethical technology use, collaborative problem-solving, and adaptive expertise, empowering our students to not just survive but thrive as creators, innovators, and mindful digital citizens in an AI-transformed world. Generative AI is not just another tool. Generative AI represents a paradigm shift in how we teach and learn, disrupting a schooling model that has remained largely unchanged for over a century and still in many ways resembles industrial models that over emphasize memorization and outdated skills rather than transferable and future ready skills such as the seven durable skills of the NC Portrait of a Graduate. In the age of AI, the most successful person won't be the one who collects the most facts, but the adaptable, critical thinker who asks the right questions, knows how to communicate their ideas effectively and creatively, and pursues learning throughout their entire life.

To harness AI's potential while preserving what makes education human, we need to shift from product-oriented instruction toward increased student agency, creativity, real-world problem-solving, and a focus on the process of learning rather than just the end products. This means redesigning learning experiences so they are authentic, student-driven, and process-focused, with AI serving as a collaborative partner in learning rather than a simple shortcut or threat.

Embrace Authentic, Student-Driven Learning:

The rise of AI can be a catalyst for shifting education toward more student-centered pedagogies that will better prepare students for an uncertain, but certainly AI-rich future. If routine tasks and basic content generation can now be offloaded to AI, teachers and students can spend more time on deeper learning experiences which provides an opportunity to transform classroom practice. However, keeping education relevant in the Intelligence Age will require adapting pedagogical approaches and transitioning from the traditional teacher-centered classrooms that served our students well in the past to the student-centered, active learning classrooms that will serve our students well in the future.

Focusing on these four pedagogical shifts to move from traditional to transformational learning in the age of artificial intelligence.

From Traditional	⟶	**Transformational Learning**
Focus on the Product	⟶	Focus on the Process of Learning
Teacher-centered instruction	⟶	Increased student agency
Lecture-based instruction	⟶	Project-based learning

Snapshot-in-time assessments → Learning Portfolios

- **Focusing on the process of learning** rather than just the end result is a necessity in an AI-driven world in which AI is readily accessible, AI use is not detectable, and developing skills in working with AI is essential to students' futures. This shift to process-focused instruction over product-focused assessment makes cheating with AI far less relevant, as the value lies in a student's journey and *learning narrative, not just the end result*. Rather than seeing AI as a threat to academic integrity, forward-thinking educators recognize that it can *enhance* authentic learning when used appropriately. By leveraging AI tools in a guided way, teachers can prompt students to focus on the "why" and "how" of their work instead of just the "what," fostering deeper inquiry and understanding.
- **Increased student agency** develops adaptability and critical thinking as learners take ownership of their educational journey and make decisions about their learning pathways.
- **Project-based learning** Students work to investigate and respond to complex questions or challenges, producing meaningful projects. PBL cultivates the important durable skills by engaging students in complex, real-world challenges that require teamwork and clear articulation of ideas and solutions.
- **Learning portfolios** Instead of relying solely on high-stakes tests or one-off essays (which AI can now easily generate), educators can assess a body of student work over time. This will ensure that learning is measured by growth and understanding, not just the first-final draft of an assignment. Learning Portfolios showcase students' growth, reflections, and learning process as well as their final products. They encourage metacognition and continuous feedback, highlighting how a student's skills develop through process and revision. They should also focus on the process of learning over the products of learning by including documentation of how students interact with AI (e.g. drafts, AI-assisted feedback, and subsequent improvements).

For example, in a community-based project a student might use an AI assistant to brainstorm fundraising strategies or get feedback on a marketing blurb, augmenting their capabilities while still doing the critical thinking and decision-making themselves. By pairing student-driven pedagogy with AI, we shift focus from what content students *can get* from AI to what new problems and ideas they can *tackle* by working alongside AI. Such approaches naturally cultivate the durable skills from the Portrait of a Graduate. A well-designed, AI-integrated project can require students to *adapt* to new challenges, *collaborate* in teams, *communicate* their findings, *think critically* about AI-provided information, show *empathy* when considering the impact of solutions, maintain a curious *learner's mindset* as they iterate, and take *personal responsibility* for their use of AI and the quality of their work. In other words, it puts all seven durable skills into practice in an authentic context.

Embracing AI in this way also aligns with ongoing efforts to personalize learning and make education more relevant to the real world. By shifting pedagogy now, we will position North Carolina's schools at the forefront

of educational innovation, simultaneously reinforcing the timeless skills our children need and engaging them with the tools of tomorrow.

Redefining the Teacher's Role and Human Skills Development:
With more freedom to innovate, teachers can more easily act as coaches and facilitators, guiding students through project work, Socratic discussions, and design challenges. Classrooms can transform into laboratories of exploration, where collaboration, creativity, and critical thinking are at the forefront. When used skillfully, large language models and other AI tools can dramatically reduce the time teachers spend on administrative and preparatory tasks (e.g. drafting lesson plans, grading drafts, writing routine emails), freeing up more time for direct student interaction and individualized support. In short, AI can hand educators back the time and flexibility to focus on why they became teachers in the first place; guiding and inspiring young people.

Ultimately, the goal is to blend AI literacy with human literacy: students must learn how to learn and adapt in an AI-rich world, becoming fluent with the technology but grounded in uniquely human strengths.

The rise of AI makes these transferable human skills more important, not less. While AI excels at processing information and automating routines, it lacks the nuanced judgment, ethics, and empathy that students must develop for the future. Instruction should, therefore, explicitly cultivate skills like problem-solving, ethical reasoning, teamwork, and adaptability. For example, class activities might involve ethical debates on AI outputs, group problem-solving tasks, and reflection journals, all of which build the human capacities that complement AI capabilities. By leveraging AI as a teaching assistant, educators can put even greater emphasis on these higher-order skills.

Large Language Models (LLMs) – A New Kind of General Purpose Technology
At the heart of this transformation are advanced AI systems like large language models. An LLM (such as OpenAI's ChatGPT) is a generative AI program designed to produce human-like text based on patterns it learned from vast amounts of data. Educators and students do not need an in-depth technical background on machine learning, but they should grasp that these AI tools work differently from Google searches or textbooks. A basic understanding of how AI models function and their limitations is now considered part of digital literacy. (For a practical primer on LLMs, see the *AI Literacy Foundations for Educators* training modules in Appendix E). By building a baseline AI literacy among staff and students, schools ensure that everyone knows how to use these tools responsibly and effectively, verifying AI-generated content, protecting data privacy, and recognizing biases, before integrating them deeply into learning.

Updated Guidance on Effective Prompting

One of the most important new skills for both teachers and learners is mastering the art of prompting AI to get useful results. Creating effective prompts is like knowing how to ask good questions, a critical component of inquiry-based learning. Simple one-line prompts (e.g. "Explain photosynthesis") may yield

basic answers, but deeper learning comes from engaging in a dialogue with AI and giving it explicit instructions and rich context.

Modern reasoning-rich models (ChatGPT 5.1, Gemini 3, Claude Opus 4.5) can process less structured, more conversational prompts than earlier models, but a clear prompting framework is still valuable whenever you need consistency, accountability, or to teach novices to ensure effective use and positive early impressions.

Why Prompting Matters:

- **Builds future-proof skills:** Learning to communicate effectively with AI models is an important skill now and in the future.
- **Boosts AI quality:** Clear context, precise roles, examples, reference files, and explicit output formats reduce hallucinations and make responses instantly usable
- **Models good thinking:** Prompting is communicating! Practice with prompting trains students to communicate effectively and builds problem-solving.
- **Harnesses new capabilities:** Multimodal inputs leverage cutting-edge features that make learning more interactive and accessible.

Ultimately, learning to communicate your needs to an AI and to critically evaluate the AI's output is now a core competency. It's a skill best learned by doing, so teachers and students should be encouraged to experiment with prompts and share what works. See Appendix C for information on the updated CRAFT Prompting Framework.

Prompting strategies will likely evolve as new capabilities emerge, but the most important skill to maximize the value of generative AI is to communicate effectively; provide clear, specific instructions with adequate context, and verify all AI-generated outputs.

Clarity > Courtesy

While LLMs excel at generating content and analyzing information, they function best as collaborative partners rather than autonomous decision-makers.

When ChatGPT and other LLMs first became mainstream, a lot of people recommended being polite to the chatbot, such as saying 'please' and 'thank you'. However a wave of 2025 evidence refines how users should frame politeness with AI models. Prompt-engineering tests show that courtesy does **not** improve output quality compared with plain, well-structured instructions, underscoring that clarity outranks manners in effective prompting[19]. Sam Altman's comment that extra "please/thank-you" tokens cost OpenAI "tens of

[19]Cleary, Dan. "How Polite Should We Be When Prompting LLMs?" *Medium*, 11 Mar. 2024, https://medium.com/@dan_43009/how-polite-should-we-be-when-prompting-llms-0c0dd9c9e06c. Accessed 7 May 2025.

millions" in electricity also highlights a teachable link between concise language and stewardship of the environment[20].

Researchers also found that polite requests can make large models *more willing* to generate misinformation, offering a great opportunity to enhance critical thinking for students by having them analyze how tone nudges bias and refusal rates[21]. You will get better results if you focus on being clear, concise, and direct when interacting with LLMs and other AI systems.

As the lines between AI and human content continue to blur, educators should be particularly mindful of avoiding anthropomorphizing language (assigning names, pronouns, emotions to the models) when modeling or discussing AI use with students. While LLMs engage in increasingly human-sounding ways, and can emulate human emotions and empathy, it is important to remember that they are not human, to emphasize this to students of all ages, and to model appropriate interactions with humans as well as AI systems. To help students draw clear distinctions between interacting with humans and interacting with AI systems, educators should teach and model the appropriate way to act with humans in contrast with appropriate and effective communication with AI systems.

The following statement sums up this contrast:

> *Save your manners for humans! Always be kind and polite when communicating with humans, but focus on being clear, concise, and direct when interacting with LLMs and other AI systems.*

Human Judgement & Agency + NC Portrait of a Graduate Durable Skills

As we navigate this Intelligence Age, the question is no longer *if* our students will use these tools, but *how* they will lead within a landscape where technical proficiencies shift daily and the "irreplaceable core" of human judgment becomes the primary currency of the future.

To truly prepare learners, we must look beyond mere tool adoption and center our instruction on durable skills such as the seven durable skills that are the anchors of our NC Portrait of a Graduate: adaptability, collaboration, critical thinking, empathy, learner's mindset, and personal responsibility; ensuring that while AI may generate options, our students possess the agency, ethics, and wisdom to own the decisions. We have created a framework that combines the need for human agency with the seven durable skills of the North Carolina Portrait of a Graduate.

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[20] Toria Sheffield, "OpenAI CEO Claims Saying 'Please' and 'Thank You' to ChatGPT Costs 'Tens of Millions of Dollars' — Here's Why," *People*, 26 Apr. 2025, https://people.com/open-ai-ceo-claims-saying-please-thank-you-to-chatgpt-costs-millions-of-dollars-in-electricity-bills-11721523. Accessed 7 May 2025.

[21] Vinay Rasita et al., "Emotional Prompting Amplifies Disinformation Generation in AI Large Language Models," *Frontiers in Artificial Intelligence*, vol. 8, 7 Apr. 2025, doi:10.3389/frai.2025.1543603. Accessed 7 May 2025.

The Core Principle

Instructional redesign protects the Irreplaceable Core:

- Thinking
- Judgment
- Ethical decision making
- Personal Responsibility

> **"AI should increase cognitive demand, not reduce it."**

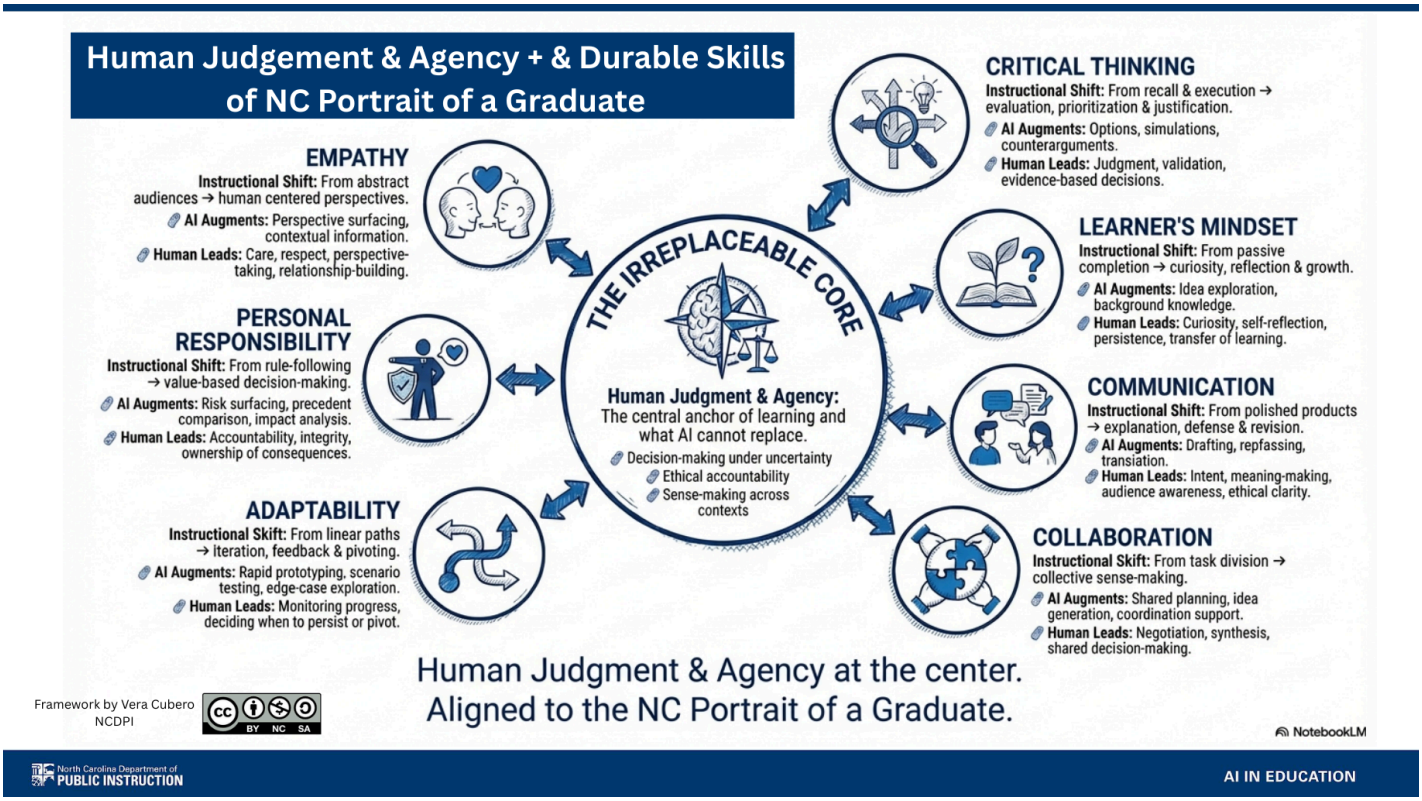
The Teacher's Role

Non-Negotiables

- Teachers do NOT need to become AI experts or abandon standards.
- Teachers DO need to require justification, defense, and student leadership.

Three Critical Questions

- Where does judgment live?
- What decision must students make?
- How will I see their thinking?



You may review the framework along with example student tasks in Appendix F.

Direct questions about this document to Vera Cubero or Dr. Ashley McBride .
This is a Living Document for an Evolving Future: last updated 2/2/2026. See Update Log for update details

How to Use AI Responsibly EVERY Time

The **EVERY** framework, created by AI for Education and Vera Cubero (NCDPI), distills responsible AI practice into five easy steps: Evaluate, Verify, Engage, Revise, and remember that **You** are responsible for the final product. Use this checklist train and reinforce responsible AI use with students as they interact with a generative AI tool to keep outputs accurate, ethical, and authentically yours.[22]

Try it Out!

1. EVERY Interactive Teaching Tool by Vera Cubero to understand the steps of the EVERY framework (accessible to all students and educators) https://go.ncdpi.gov/EVERY-Interactive
2. Responsible Use EVERY Time GPT by Vera Cubero(accessible to educators and students who are allowed to access ChatGPT store). Reinforce the steps of the EVERY framework. https://go.ncdpi.gov/EVERY-GPT

Disclosing AI Use or Citing Generative AI as a Source

Educators should lead by example and model mandatory AI-use disclosure statements and academic honesty about their use of generative AI tools, and teach students to do the same. Because today's generative AI tools can not actually create content without some level of human participation and guidance, it is generally considered best practice to acknowledge the use or partnership with the AI tool when a formal citation is not required.

In a recent publication, the US Copyright Office determined that purely AI-generated material is not copyrightable, and trademark or copyright applications must list a human or legal entity who exercised meaningful creative control. Outputs that mix AI assistance with original human expression *can* be protected,

[22] AI for Education. "How to Use AI Responsibly EVERY Time." *AI for Education & Vera Cubero*, 25 Nov. 2024, www.aiforeducation.io/ai-resources/how-to-use-ai-responsibly-every-time. Accessed 2 May 2025.

but only the human-created portions qualify.[23] Because generative AI is still somewhat new, there will likely be further litigation surrounding AI and copyright.

If traditional citations are not required, but any form of AI assistance was used, it is recommended to include:

- **the name of the person,**
- **the tool,**
- **how AI was used (brainstorming, outlining, feedback, editing, etc),**
- **and the human contribution (evaluating, verifying, revising outputs, etc)**.

Disclosure statements can be included in an "AI Credits" section at the end of the work or within the text, beneath an image, etc as appropriate. A link to AI chats can be shared on most major LLM platforms and this is a great way for teachers to see a student's learning process and how the student relied on or partnered with the AI to complete the work.

Example disclosure statements:

- "Created by John Doe with editing assistance from ChatGPT and careful human oversight"
- "I used Google Gemini to help me brainstorm ideas for my project then I evaluated each one for the best choice"
- "Image created in partnership with Adobe Firefly using the following prompt; 'create a cartoonish image of a bored frog on a lily pad, surrounded by cattails. 16:9 Make it bright and colorful so that young children would enjoy it.'

Formal Citations:

Currently most online citation tools do not include AI in their options. You can ask your LLM to create citations, but as with anything else, the user will need to verify that the details and formatting is correct. If a formal citation is expected, MLA, APA, and Chicago provide guidance on their websites for creating citations.

- MLA format - https://style.mla.org/citing-generative-ai/
- APA format - https://apastyle.apa.org/blog/how-to-cite-chatgpt
- Chicago Format -https://www.chicagomanualofstyle.org/qanda/data/faq/topics/Documentation/faq0422.html

[23] U.S. Patent and Trademark Office. *Guidance on Use of Artificial Intelligence-Based Tools in Practice Before the United States Patent and Trademark Office. Federal Register*, vol. 89, no. 71, 11 Apr. 2024, pp. 25609-25617. United States Government Publishing Office, https://www.federalregister.gov/documents/2024/04/11/2024-07629/guidance-on-use-of-artificial-intelligence-based-tools-in-practice-before-the-united-states-patent. Accessed 2 May 2025.

0 to Infinity: NCDPI AI Use Continuum v. 2.0

An AI Acceptable Use Scale is an important part of a school or PSU's generative AI adoption plan to help build common understanding, clear expectations, and common language around the use of AI by students. The scale should be referred to clarify what level, if any, is acceptable use of AI on a given task. It should be explicitly taught and posted in visible locations for reference and can be used to build a common understanding and language to ensure fair and equitable treatment of issues of suspected plagiarism or cheating with AI in the K12 setting.

This continuum details use from 0- 4/infinity as detailed below. This updated AI use continuum is based on the work of Leon Furze, Dr. Mike Perkins, Dr. Jasper Roe, Dr. Jason McVaugh and has been adapted for the K12 environment.[24] The levels of the AI Use Continuum are summarized below.

Further explanation for both an educator and student version may be found in Appendix B.

North Carolina Department of PUBLIC INSTRUCTION

🚀0 to Infinity🚀- NCDPI AI Use Continuum v. 2.0: for Educators

	Levels	Full Description
0	AI Free	This AI-resistant assessment is completed in a controlled environment, entirely without AI assistance. AI Must not be used at any point during the assessment. This level ensures that students rely solely on their own knowledge, understanding, and skills.
1	AI Planning	AI can be used in the pre-work for the assessment including brainstorming, outlining, researching, creating structures, and generating ideas for improving work. This level focuses on the effective use of AI for lanning, synthesis, and ideation but assessments should emphasize the ability to develop and refine these ideas independently
2	AI Collaboration	Student may collaborate with AI to help complete the task, including idea generation, drafting, feedback, and refinement. Students should critically evaluate and modify the AI-suggested outputs, demonstrating their own understanding.
3	Full AI Use	AI may be used to complete any elements of the task unless specific use cases are communicated by the teacher. The focus is on students directing AI to achieve the assessment goals while maintaining critical oversight and evaluation to achieve goals and solve problems.
4	AI Exploration	AI is used creatively to enhance problem-solving, generate novel insights, or develop innovative solutions to solve problems. AI should be a 'co-pilot' to enhance your human intelligence and creativity.

Adapted by Vera Cubero for the North Carolina Department of Public Instruction (NCDPI)
from the work of Dr. Leon Furze, Dr. Mike Perkins, Dr. Jasper Roe FHEA, & Dr. Jason Mcvaugh
Link to Original Work

Download this image for printing or editing- go.ncdpi.gov/0toInfinity2.0

[24] Leon Furze. "Updating the AI Assessment Scale." *LeonFurze.com*, 28 Aug. 2024, https://leonfurze.com/2024/08/28/updating-the-ai-assessment-scale/.

North Carolina Department of PUBLIC INSTRUCTION 🚀0 to Infinity🚀 NCDPI AI Use Continuum v. 2.0: For Students

	Levels of AI Use	Can I Use AI on this Assignment? If so, How?	How must I disclose my use of AI?
0	AI Free	No. You may NOT use AI at any point or in any way during this assesssment. You must demonstrate your own core skills & knowledge.	No AI disclosure required May require an academic honesty pledge that AI was not used. Example pledge: "*I atttest that I did not use any form of AI to complete this work and it demonstrates my own knowledge and skills.*"
1	AI Planning	You may use AI for planning, idea development and research. Your final submission should show how you have developed and refined these ideas. No AI generated content should be submitted in the final product.	AI disclosure statement that names the person (you), tool(s) used, & how it/they were used must be submitted with your work along with link(s) to AI chat(s). Example disclosure statement: *"I used ChatGPT 4o to brainstorm and plan my ideas, and to research my topic."*
2	AI Collaboration	You may use AI to assist with specific tasks such as drafting text, refining and evaluating your work. You must critically evaluate and modify any AI-generated content you use to reflect your own understanding, voice, and style.	AI disclosure statement that names the person (you), tool(s) used, & how it/they were used must be submitted with your work along with link(s) to AI chat(s). Example disclosure statement: "*I used Gemini 2.5 to brainstorm, research, draft, and evaluate my work.*"
3	Full AI Use	You may use AI extensively throughout this assessment as you wish, unless specific use cases are directed by your teacher. Focus on directing AI to achieve your goals while also demonstrating critical thinking and evaluating all AI-generated outputs for accuracy and fairness.	AI disclosure statement that names the person (you), tool(s) used, & how it/they were used must be submitted with your work along with link(s) to AI chat(s). Example disclosure statement: "*I used ChatGPT 4o as a thought partner throughout the completion of this work.*"
4	AI Exploration	You should use AI freely and creatively to enhance problem-solving, generate new insights, or develop innovative solutions to solve problems. You are responsible for providing human oversight and evaluation of all AI generated content.	AI disclosure statement that names the person (you), tool(s) used, & how it/they were used must be submitted with your work along with link(s) to AI chat(s). Example disclosure statement: "*I used Gemini 2.5 to brainstorm, research, draft, and evaluate my work.*"

Adapted by Vera Cubero for the North Carolina Department of Public Instruction (NCDPI) from the work of Dr. Leon Furze, Dr. Mike Perkins, Dr. Jasper Roe FHEA, & Dr. Jason Mcvaugh
Link to Original Work

Download this image for printing or editing- go.ncdpi.gov/0toInfinity2.0

Use Great Caution with 'AI Detectors'

AI detectors have proven not to be dependable, therefore they should never be used as the only factor when determining if a student 'cheated'. Common issues with AI detectors are a high frequency of false positives for non native English speakers and creative writers as well as a high frequency of false negatives for students who are skilled at working with AI and are capable of fooling the detectors. If there is suspicion that a student depended on AI too heavily for an assignment, this should be viewed as a teachable moment to reinforce the appropriate partnership with AI tools rather than a 'gotcha' moment. Educators should ensure proper communication about appropriate uses of AI on each assignment, referencing an AI Acceptable Use Scale such as the one provided above to clarify appropriate level of generative AI as this may vary from assignment to assignment and class to class.

This graphic by Holly Clark of The Infused Classroom, is an excellent visual aid to demonstrate why AI detectors are problematic and what to do instead.[25]

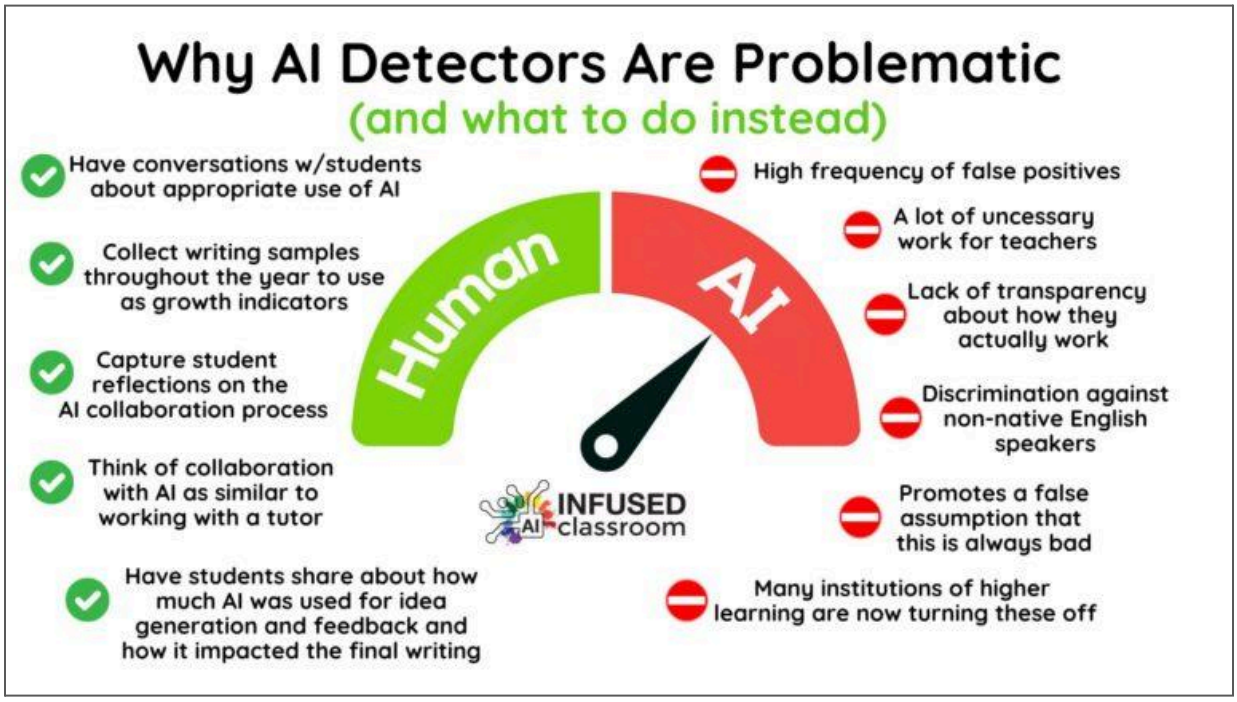


Image credit: Use with permission from Holly Clark of The Infused Classroom, https://www.hollyclark.org/2023/09/22/why-ai-detectors-are-problematic-and-what-to-do-instead/

By implementing these recommendations, North Carolina classrooms will transform into future-ready learning environments. Curriculum will be more interdisciplinary and project-centered, instruction will be more accessible and personalized, and assessments will value growth and creation – all while AI humans alongside as a supportive co-creator. This balance ensures that we leverage what AI does best (information processing, tutoring at scale, idea generation) to unlock what humans do best (innovation, empathy, judgment, collaboration). In sum, *our goal is not to adapt education to AI, but to adapt education for the Intelligence Age* empowering students to thrive with AI as confident, creative, and conscientious learners.In sum, *our goal is not to adapt education to AI, but to adapt education for the Intelligence Age* empowering students to thrive with AI as confident, creative, and conscientious learners.

[25] Clark, Holly. "Why AI Detectors Are Problematic and What To Do Instead." *Holly Clark*, 22 Sept. 2023, www.hollyclark.org/2023/09/22/why-ai-detectors-are-problematic-and-what-to-do-instead/. Accessed 2 May 2025.

Data Privacy & Cybersecurity

Data Privacy in the Age of AI

Protecting student data has always been a cornerstone of ethical education but in the Intelligence Age, this responsibility becomes even more complex. New AI tools not only process typed inputs but can now accept voice recordings, images, and even location data. These inputs are often stored by vendors for model training or product improvement, even when students or staff assume the data is private. Any AI system that collects, stores, or processes personally identifiable information (PII) including names, birthdays, voice clips, facial images, student work, or ID numbers must be subject to the same strict oversight as any traditional educational technology.

LLM models such as ChatGPT utilize user input in the form of chats to continue training the models. Therefore it is imperative that users fully understand NOT to enter, paste, or upload any PII into the chat of any generative AI tool. All users should be reminded of what data is considered PII, and that it includes student ID numbers. Users should use caution in particular to avoid inadvertently copying, uploading, speaking, or using computer vision to capture documents in an LLM as any of these methods couple potentially introduce PII into the model when evaluating student responses, analyzing data, or creating personalized content such as IEP goals, personalized learning plans, etc.

Under **FERPA** (Family Educational Rights and Privacy Act), PII includes both direct identifiers (e.g., name or Social Security number) and indirect identifiers (e.g., date of birth or student photo) that could be used to trace a student's identity. Educators and students must be clearly instructed never to input PII into AI systems unless the tool has been formally vetted, approved, and integrated under local district policy.

Emerging AI-Specific Threats

Since our original publication in January of 2024, the capabilities of AI systems have grown exponentially. With new potential to improve our lives comes new emotional concerns as well as cyber security and data privacy risks that must be addressed by public schools in order to keep student data and students themselves safe from harm.

Modern AI systems introduce or increase several distinct risks not fully covered by older privacy frameworks:

- **Voice-cloning scams** – bad actors cloning a person's voice to scam money
- **"Social AI companion" chatbots** – apps could potentially engage in sexual role-play, self-harm talk, and unhealthy emotional bonds
- **Hyper-personalized political disinformation** – deepfake videos/robocalls target users with tailored lies and propaganda
- **Next-gen cheating & "ghostwriting"** – Deep Research models auto-rewrite essays and evade detection
- **AI-crafted cyberattacks on schools** – phishing, ransomware, and spoofed video calls
- **Impersonation & grooming** – predators use AI to pose as peers or deploy bots that lure children in chat and games

- **Mental-health over-dependence** – teens turn to ChatGPT-style "therapy," risking isolation and delayed professional help
- **Deepfake harassment & image-based abuse** – nude or hateful synthetic images/audio of classmates spread in seconds

AI Enabled Browsers

AI-enabled browsers represent a fundamental shift toward always-on, agentic computing. Embedding AI literacy across all curriculum areas and age bands in age-appropriate contexts will ensure every North Carolina learner can collaborate responsibly with these rapidly advancing systems while strengthening the higher-order competencies that remain uniquely human. AI-enabled browsers are the newest evolution of everyday digital tools, integrating conversational agents, tab-aware assistants, and multimodal reasoning models directly into web browsers. While these features can improve productivity, accessibility, and research efficiency for educators, they also expand privacy and data-security concerns in school environments. Because these tools are already becoming the default browsing experience, requiring clear oversight from district technology and policy leaders, we created the following guide, "AI-Enabled Browsers Are Here" to guide NC's education and technology leaders in navigating this new shift. Note that this guidance will be updated frequently to reflect new advancements as tech companies address privacy and security issues.

Autonomous AI Systems

The recent viral release of the agentic platform, OpenClaw (was Clawdbot, then Moltbot) provides a preview into the potential future capabilities of agentic AI systems, and it has proven to introduce major security vulnerabilities.
Autonomous AI agents such as OpenClaw go beyond chatbots by taking direct actions on a device, including reading and writing files, browsing the web, and running commands, which increases the likelihood of unintended data exposure on school systems. Because these agents can be manipulated through prompt-injection or unvetted third-party "skills" to exfiltrate data or run malicious commands, Public School Units should:

- Treat them as a cybersecurity risk category and prohibit use on school-managed devices, accounts, or networks unless cleared through formal IT security review.
- Update Acceptable Use guidance to reflect this default prohibition and handle any detected use as a potential security incident (stop use, report, and triage).
- See the article "AI Insights Focus: What's OpenClaw and why should I Care" by Matthew Wemyss Feb. 2, 2026[26] for a clear and easy to understand overview of OpenClaw.

[26] Matthew Wemyss, "AI Insights Focus: What's OpenClaw and why should I care?," LinkedIn, 2 Feb. 2026, https://www.linkedin.com/pulse/ai-insights-focus-whats-openclaw-why-should-i-care-matthew-wemyss-cr7of/ . Accessed 2 Feb. 2026.

Legislation Regarding Deepfakes

- On December 1, 2024, a new sex crimes bill, SL 2024-37/HB 591 came into effect in North Carolina, that includes significant provisions addressing the creation and distribution of nonconsensual deepfake images.[27] This legislation aims to protect all individuals, including minors, from the harmful effects of this emerging technology. A key aspect of this law is that it treats AI-generated images, videos, or audio that recognizably imitate a particular person the same as real images or recordings for the purposes of these offenses.
- The **TAKE IT DOWN Act** has become law. This law compels platforms that host user-generated content to delete any non-consensual intimate image or an AI-generated "digital forgery" of such an image within 48 hours of a verified takedown request; knowingly posting this material becomes a federal crime punishable by up to three years' imprisonment. The Act also treats a platform's failure to maintain an effective notice-and-takedown process as an unfair or deceptive practice enforceable by the Federal Trade Commission.[28]
- The Future of Privacy Forum published an amazing graphic and readiness checklist to help guide education institutions in navigating this challenging issue. The graphic can be viewed and downloaded by visiting this link[29]

Recommended Actions to Safeguard against Deepfakes:

- **Educating Educators, Students, and Families**
  Provide comprehensive digital literacy (media literacy, online safety, social media literacy etc) that also includes information about deepfakes, and the potential ethical and legal consequences of creating, possessing, or sharing them. Emphasize that AI-generated content that is recognizably imitating a real person is treated the same as real content under the law and that punishments are harsher if the victim is a minor, even if the perpetrator is also a minor.
- **Developing Policies:**
  Implement clear school policies that address the creation and distribution of deepfakes, outlining specific consequences for students who violate these policies.

- **Collaborating with Law Enforcement:** Establish procedures for reporting and addressing incidents involving deepfakes, working closely with law enforcement to ensure appropriate action is taken.
- **Supporting Victims:** Provide resources and support services to students who are victims of deepfake pornography or other forms of online abuse.

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[27] North Carolina General Assembly. *House Bill 591 / Session Law 2024-37, "Modernize Sex Crimes."* 2023–2024 Session, enacted 8 July 2024. North Carolina General Assembly, https://www.ncleg.gov/Sessions/2023/Bills/House/PDF/H591v5.pdf. Accessed 2 May 2025.
[28] United States, Congress, Senate. *S. 146, Tools to Address Known Exploitation by Immobilizing Technological Deepfakes on Websites and Networks Act (TAKE IT DOWN Act)*, 119th Cong., 1st sess., introduced 16 Jan. 2025. Congress.gov.
[29] Future of Privacy Forum. *Deepfakes in School: Risks and Readiness*. Future of Privacy Forum, Mar. 2025, https://fpf.org/wp-content/uploads/2025/03/FPF-Deep-Fake_illo03-FPF-AI.pdf.

Federal and State Compliance Requirements

- **FERPA** (Family Educational Rights and Privacy Act) ensures students' education records remain protected.
- **COPPA** (Children's Online Privacy Protection Act) prohibits data collection from children under 13 without explicit parental consent.
    - COPPA was significantly revised in January 2025, its first major update since 2013. These updates modernize the law to address new forms of data collection, including biometric data, AI-generated content, and automated profiling of children.[30]
    - Key changes to COPPA include:
        - **Expanded Definition of Personal Information**: COPPA now includes **biometric identifiers** such as facial recognition data and voiceprints.
        - **Parental Consent for Targeted Advertising**: Separate, verifiable consent is now required before sharing data with third parties for personalization or profiling.
        - **Data Retention and Deletion Requirements**: Data may only be kept as long as needed for educational or operational purposes, with written retention policies required.
        - **Stronger Notification to Parents**: Schools and vendors must provide clear and accessible disclosures about data collection and sharing practices.
        - **New Consent Methods**: New FTC-approved options include knowledge-based authentication, ID verification, and AI-assisted identity confirmation.
        - **Safe Harbor Transparency**: COPPA Safe Harbor programs must now disclose membership lists and file compliance reports with the FTC.
- **CIPA** (Children's Internet Protection Act) requires schools using federal e-rate funding to implement policies blocking inappropriate content and safeguarding against the unauthorized disclosure of student information.
- **IDEA (**Individuals with Disabilities Education Act) Ensures students with disabilities are provided with free appropriate education that is tailored to their individual needs.
    - The use of AI as an instructional tool must be reasonable, appropriate, and individualized based on unique needs for students with disabilities.
    - AI AI may provide options for expanding learning experiences through unique accommodations or as a supplement to assistive technology.
    - Remember: The "I" in AI is not the same as the "I" in IDEA or IEP
- **Section 504** requires that AI tools be accessible and non-discriminatory for students with disabilities, ensuring equitable participation in digital instruction.

In North Carolina, all third-party vendors connecting with the NC SIS and other state-wide systems must comply with DPI's Third-Party Data Integration Requirements, effective January 2024. These include mandatory Data Confidentiality and Security Agreements and alignment with NIST 800-53 cybersecurity standards.

[30] Federal Trade Commission. "FTC Finalizes Changes to Children's Privacy Rule Limiting Companies' Ability to Monetize Kids' Data." *Federal Trade Commission*, 16 Jan. 2025, www.ftc.gov/news-events/news/press-releases/2025/01/ftc-finalizes-changes-childrens-privacy-rule-limiting-companies-ability-monetize-kids-data. Accessed 2 May 2025.

Districts must maintain documentation confirming that vendors use student data only for educational purposes and do not share or monetize it without consent.[31]

Cybersecurity Considerations for AI Tools

AI tools can expose districts to new cybersecurity risks, including unauthorized data extraction, prompt injection attacks, and potential leaks of sensitive content.
PSUs should conduct and review a security audit on the product/vendor to ensure they meet or exceed applicable security practices, PSU, State, and Federal requirements. PSUs should understand how each product or tool harvests data for training and continual learning. This is critical to help ensure sensitive data or contaminated data is not ingested. District technology teams must audit each tool's **security posture** before adoption:

- **Ensure Encryption**
- **Limit Permissions**
- **Avoid Model Training on School Data**
- **Use Simulated Data for Pilots**
- **Establish Incident Response Protocols**

Districts are also encouraged to monitor vendor updates. Many AI tools update their terms of service frequently. A product that was offline yesterday might now sync data to the cloud. These changes may expose students to new risks and should trigger re-review before continued classroom use.

Reviewing and Adapting Guidelines

School districts and schools must continuously review and adapt their AI guidelines to keep pace with the rapid evolution of AI technologies. This involves regular assessments of AI practices, potential risks, and emerging trends to maintain responsible and ethical integration. All PSUs engaging with AI technologies should regularly review the company's usage and privacy guidelines.
Usage: PSUs, schools, educators and students that are utilizing any type of AI tools adhere to specific usage requirements outlined by the tool's developer or provider. This includes complying with age restrictions, data usage practices, any restrictions, inclusivity, limitations, notifications, and any other relevant guidelines or restrictions. This should include awareness and procedures in place regarding, but not limited to following COPPA, CIPA, IDEA, FERPA, and section 504.

Transparent Communication with Families

Perhaps most importantly, schools must **communicate clearly and consistently with families** about how AI is being used, what data is being collected, and how it is protected. Best practices include:

- Publishing a **list of approved AI tools** used in classrooms by grade span.

[31] North Carolina Department of Public Instruction. "Third Party Data Integration." *NC DPI*, n.d., https://www.dpi.nc.gov/about-dpi/technology-services/third-party-data-integration. Accessed 2 May 2025.

- Including AI in annual **technology disclosure forms** and the list of “School Officials” in the annual FERPA notification .
- Holding family information sessions on **AI safety and literacy**.
- Providing **opt-out options** where appropriate.
- Explaining **how voice, video, or images may be used**, and when parental consent is required.

Technology, Infrastructure, and Devices

Purchasing and Using AI Technologies:

When it comes to investing in technologies to support learning with and about Artificial Intelligence, it is important to ensure that the technology resources:

- **Are Age Appropriate for the User of the AI Technology:**
  - Pay special attention to age allowances of the technology to ensure compliance with federal, state, and local laws and policies as well as age limits and permission requirements in the terms of service for each application.
- **Comply with Regulations:**
  - Prioritize technologies that comply with federal, state, and local regulations regarding data privacy and cybersecurity in educational settings. Familiarize yourself with regulations like the Family Educational Rights and Privacy Act (FERPA) in the United States and similar laws in other regions.
- **Secure Access Controls**:
  - Implement secure access controls to ensure that only authorized individuals have access to sensitive student data. This includes usernames, passwords, and multifactor authentication methods to protect against unauthorized access.
- **Encrypt and Secure Transmission:**
  - Ensure that data, especially personally identifiable information (PII), is encrypted both in transit and at rest. This adds an extra layer of protection against data breaches or unauthorized interception.
- **Are Required to Undergo Regular Security Audits**:
  - Periodically conduct security audits and assessments to identify vulnerabilities in the technology infrastructure. This helps in proactively addressing potential security risks and ensuring a robust cybersecurity posture.
- **Meet Clear Data Usage Policies**:
  - Clearly communicate to students, parents, and educators how data collected by AI technologies will be used, stored, and shared. Establish transparent policies that align with best practices for data privacy in educational settings.
- **Meet Vendor Security Standards**:
  - If using third-party platforms or services, verify that the vendors adhere to stringent security standards. This includes evaluating their data protection policies, encryption practices, and overall commitment to cybersecurity.

Seven Questions to Ask Generative Ed Tech Companies[32]

1. **AI Capabilities and Limitations**
    - Generative AI is a new technology with extensive limitations.
    - What controls are in place to identify and lower hallucinations?
    - Are responses accompanied by links to reliable sources to verify the information?
    - Does the tool include teacher monitoring or an easy way to share the AI Chat so teachers can monitor student use for school work?
2. **Mitigating Bias**
    - It's important that the tools we use do not cause harm to our students or teachers.
    - What steps have been or are being taken to identify and mitigate biases?
    - How are fair and unbiased outputs supported?
    - How can users report instances of bias if they encounter them in AI responses?
3. **Student Privacy and Ethical Data Use**
    - Protecting student data privacy and ensuring ethical use of data is a top priority for our school.
    - What policies and safeguards are in place to address privacy of student data?
4. **Human Oversight and Quality Control**
    - Our educators need to validate and trust AI-generated content before use and ensure there is always a human in the loop.
    - What human oversight and quality control measures are used?
    - How is feedback from teachers/students being collected and actioned?
5. **Evidence of Impact**
    - We need evidence that your AI tool will improve learning outcomes for our student population and/or effectively support our teachers.
6. **Accessibility and Inclusive Design**
    - Our school needs to accommodate diverse learners and varying technical skills among staff.
    - How does the tool ensure accessibility and usability for all our students and staff?
    - How can these tools be used to provide additional support and personalization for students with IEPs, 504s, Multilingual Learner (ML) economically disadvantaged students, marginalized student groups and others?
7. **Cybersecurity**
    - How can we be sure we are minimizing any potential risks to our networks and our users?
    - What security practices are you implementing to protect our user and organizational data (an essential act of AI project management & digital citizenship)?
    - How do your security practices meet or exceed applicable PSU, State, and Federal requirements including the new NC Third Party Data Integration requirements?**AI Evaluation Tools:**

- **District/PSU Level-** AI Evaluation Tool- Created by NC AI Collaborative members, Marty Sharpe, David Blattner, Daven Hunsicker, Orhan Kul, Melody Lam, Dane Rickett, Casey Rimmer, Susan Rodgers, & Dale Rush[33]
- EdTech Evaluation Tool from EdTech Center @ World Education Workforce EdTech Tools

[32] "Top 5 Questions for GenAI EdTech Providers." *AI for Education*, 23 Oct. 2024, www.aiforeducation.io/ai-resources/questions-genai-edtech. Accessed 26 Apr. 2025.
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