



# Digital Learning in North Carolina

May 2026



**DIGITAL LEARNING & SCHOOL CONNECTIVITY**  
NC Department of Public Instruction





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Friday Institute

**As executive director of the Friday Institute, Dr. Glazewski provides executive leadership and management of the Friday Institute, setting the vision for the Friday Institute to help ensure its success. As the associate dean for translational research in the College of Education, Dr. Glazewski supports the development and maintenance of collaborations between faculty in the College of Education and researchers and staff at the Friday Institute.**



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**Dr. Karl Johnson serves as Assistant Professor in the UNC Gillings School of Global Public Health. He is also a faculty affiliate of the UNC Winston Center on Technology and Brain Development. His primary research, teaching, and practice interests include substance use treatment and prevention, the intersection of public health and faith communities, the effect of social media on mental wellness (and the role of technology in public health more generally), the loneliness epidemic, as well as public health governance, especially the work of governmental boards of health in North Carolina.**

# NC Digital Learning Plan

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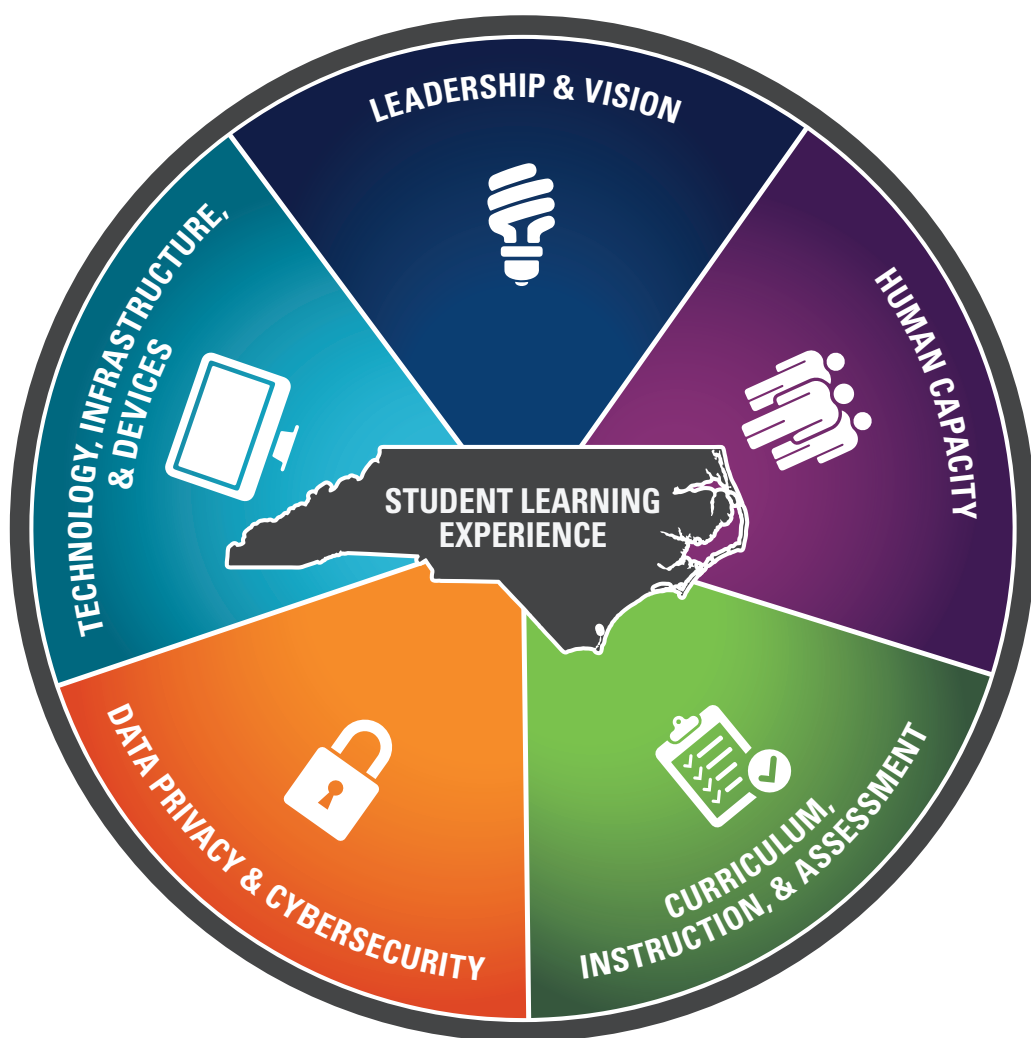


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# NORTH CAROLINA DIGITAL LEARNING PLAN

## Detailed Plan August 2022

Prepared by the Digital Teaching and Learning Division,  
North Carolina Department of Public Instruction



# NORTH CAROLINA DIGITAL LEARNING PLAN

## Detailed Plan August 2022

### Background

In 2015, in response to North Carolina Session Law 2016-94, the original NC Digital Learning Plan (NC DLP) was developed. The plan included findings related to the current landscape of digital learning in North Carolina and outlined goals and recommendations for state-level leadership that supported growth and continuous improvement of digital-age learning in the state. The North Carolina Department of Public Instruction (NCDPI), in collaboration with the Friday Institute at North Carolina State University (FI), established focus area working groups aligned with the NC DLP goals. Over the following years, these working groups further defined strategies and action items of the NC DLP and focused efforts to implement what became known as the NC Digital-Age Learning Initiative (NC DLI).

Since 2015, the landscape of digital learning in North Carolina has evolved dramatically. Many of the goals included in the original NC Digital Learning Plan have been accomplished, have demonstrated progress, or have been refined as needed, informed by the ever-evolving nature of a digital world and the specific needs of our public school units (PSUs). Additionally, the pandemic accelerated the development of digital learning environments and amplified the need for a continued commitment to growth and improvement of digital-age learning in North Carolina.

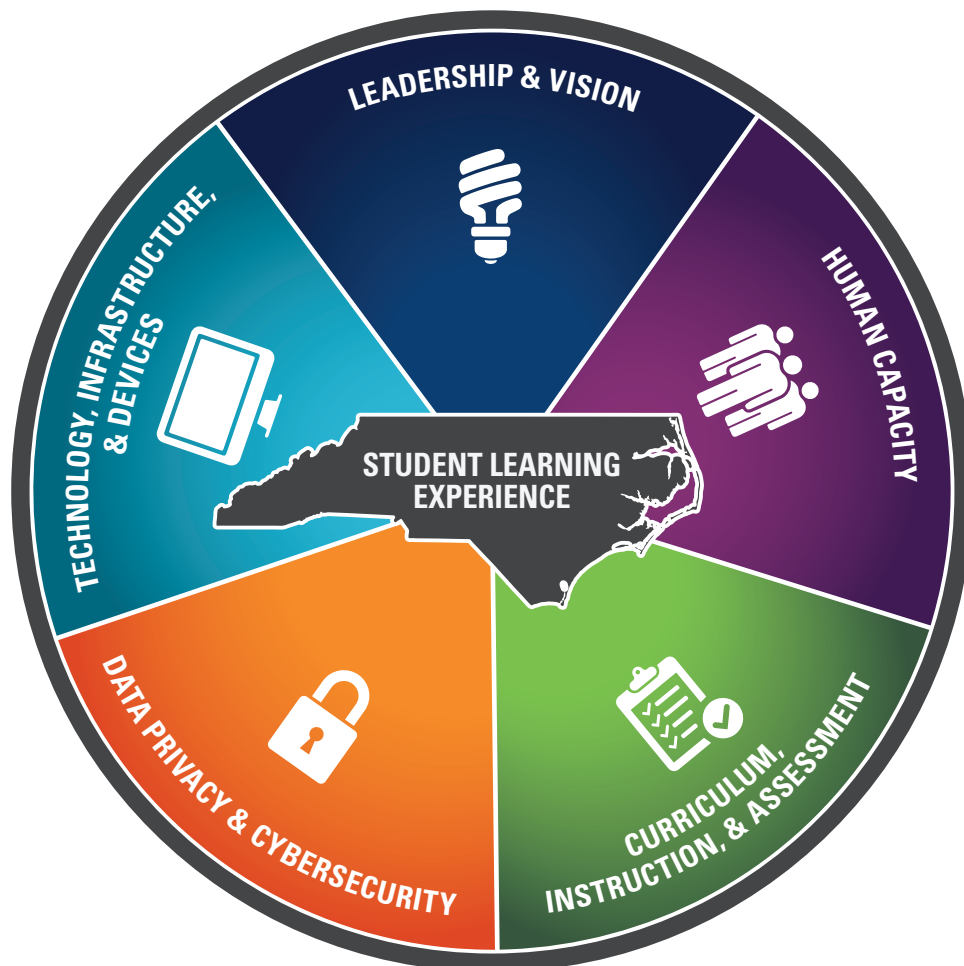
This iteration of the North Carolina Digital Learning Plan is designed to build upon the progress of the original NC DLP as well as strategically address the current landscape and needs of PSUs across the state. Requirements from NC Session Law 2016-94 are included within the plan, and feedback and recommendations from stakeholders and strategic partners have informed the development of state, PSU, and school-level objectives and strategies. Relevant data and research, evidence-based practices, related to legislation and policy, and alignment with North Carolina State Board of Education strategic goals and NCDPI initiatives have also informed the development of the NC DLP.

### Purpose

The North Carolina Digital Learning Plan is designed to provide a framework for growth and continuous improvement in the area of Digital Teaching and Learning for the Department of Public Instruction (DPI), public school units (PSUs), and schools across the state. This plan and the materials provided with it are not intended to be evaluative in nature. It is intended to share researched best practices that impact student learning experiences and offer a common language to shape conversations. Opening these types of discussions around how to improve digital teaching and learning practices can support the creation of effective action plans. The heart of the NC DLP is to create transformative student learning experiences enhanced by digital teaching and learning. Growth through the implementation of this plan will create outcomes for students who will be successful in a digital world with the skills, knowledge, and dispositions needed to be knowledge constructors, innovative designers, computational thinkers, creative communicators, and global collaborators.

## Digital Learning Plan Framework

The 2022 Digital Learning Plan includes a central focus on student learning experiences and is composed of five connected categories based on researched best practices in educational technology and the most recent frameworks for successful digital teaching and learning in the K-13 environment.



### Central Focus of the Plan

The student learning experience is the central focus for the 2022 Digital Learning Plan. Each category, goal, objective, and action within this plan works toward creating the best possible learning experience for North Carolina scholars. Through the implementation of action steps written in alignment with this Digital Learning Plan, students will become knowledge constructors, innovative designers, computational thinkers, creative communicators, and global collaborators through student-centered learning.

Each of the 5 categories identified within the framework of this plan relate back to this central focus in the following ways:



#### Leadership and Vision

Leadership and vision provide the necessary ingredients to create productive learning environments that support student engagement.



#### Human Capacity

By providing appropriate support through human resources and professional learning, instructional staff is better equipped to create student-centered learning environments that allow flexibility and focus on the needs of individual learners.



### **Curriculum, Instruction, and Assessment**

Student learning outcomes are improved greatly through the alignment of curriculum, instruction, and assessment.



### **Data Privacy and Cybersecurity**

As students begin to use more digital resources, data privacy and cybersecurity are necessary to ensure that students have a positive learning experience while remaining safe and secure.



### **Technology, Infrastructure, and Devices**

Technology, infrastructure, and devices provide all students an opportunity to learn with modern technology that is supported by high speed internet and equitable access.

## **Action Plans**

To ensure that resources, projects, and programs established in alignment with the digital learning plan effectively meet the goals and objectives in a way that positively impacts the student learning experiences of North Carolina's K-13 scholars, action plans will be provided yearly to the State Board of Education. Yearly action plans enable the Department of Public Instruction to evaluate resources, projects, and programs on an ongoing basis and make adjustments according to the latest data available. These plans will include:

- 1. Data Analysis:** A data analysis of resources, projects, and programs that were implemented in alignment with the digital learning plan along with other annual data collected from PSUs
- 2. Current Year's Action Plan:** A comprehensive plan that includes, but is not limited to:
  - plans and timelines for resource creation, curation, or review
  - descriptions of projects and anticipated timelines
  - descriptions of programs, associated activities, and anticipated timelines
- 3. Upcoming Year's Anticipated Action Plan:** A summary of longer range plans that are intended to be implemented, but may be adjusted according to data from the current year's action plan data analysis.

By taking this yearly approach to action planning, the Department of Public Instruction can ensure that the resources, services, information, timeline, funding, and human capacity required are available for sound implementation. Additionally, if there are any major shifts or disruptions the action plan can be adjusted to meet the immediate needs of K-13 students, families, and staff.



## **Student Learning Experiences and Outcomes**

By improving the learning experience, outcomes improve dramatically and equip students with the necessary skills, knowledge, and experiences to positively thrive in an ever changing world. The NC DLP will also provide direction for PSUs and schools to evaluate and modify current plans, practices, and procedures to ensure alignment by embedding digital teaching and learning experiences that improve the student learning experience.

## CATEGORY 1

## LEADERSHIP &amp; VISION



Leadership and vision are paramount to the success and continuous improvement of schools and students. Leadership involves effective planning and execution as well as communication and reflection, to ensure that the student learning experience is the focus of all instructional decisions. Vision governs actions that result in achieving goals and desired student outcomes.

**Goal 1 – A shared vision for digital teaching and learning is established and communicated with all stakeholders.**
**Department of Public Instruction Objectives:**

- A state-wide vision for digital teaching and learning is communicated with all stakeholders through various methods.
- NCDPI provides resources that align all state-level plans and priorities.
- Resources that align to state-level plans are refined on a specific and defined schedule to ensure digital teaching and learning goals and action steps are meeting state and PSU needs.
- Resources for developing a strategic vision for digital teaching and learning along with professional learning opportunities and personalized support are available to PSUs as they establish and refine their own vision and plans.

**Public School Unit Objectives:**

- A vision for digital teaching and learning is created by a diverse group of stakeholders that represent various roles throughout the PSU.
- A vision for digital teaching and learning is communicated with all stakeholders through various methods
- A vision for digital teaching and learning is an integral part of the PSU's strategic plan.

**School Objectives:**

- A school-wide vision for digital teaching and learning is created by a diverse group of stakeholders that represent various roles.
- The school's digital learning plan is an integral part of the school improvement plan.
- A school media and technology advisory committee is utilized to plan, implement, and assess the success of the school's digital learning plan.

**Student Impact:**

- Having an effective digital teaching and learning plan in place and supported by all stakeholders ensures that all students receive a transformative education enhanced by technology.

**Goal 2 – Effectively plan and implement action steps to carry out the shared vision.**
**Department of Public Instruction Objectives:**

- A plan of action has been created and presented to the State Board of Education to include all of the following: data analyzing the success of the prior year's action plan, the current action plan, and the anticipated action plan for the following year.
- A plan of action that addresses all goals and objectives of the Digital Learning Plan has been created and is being implemented.
- The plan of action was created after carefully evaluating all relevant metrics for each DLP goal and objective to include, but not limited to: the DLMI, data from project and program implementations, data provided through statewide program analytics, and data provided through partnering organizations.

**Public School Unit Objectives:**

- A plan of action that aligns to the vision has been created and includes all of the following: data analyzing the success of the prior year's action plan, the current year's action plan, and the anticipated action plan for the following year.
- The plan of action was created with a team of diverse stakeholders.
- The plan of action was created after carefully evaluating all relevant metrics to include data from multiple sources.

**School Objectives:**

- A school-wide plan of action that aligns to the vision has been created and includes all of the following: data analyzing the success of the prior year's action plan, the current year's action plan, and the anticipated action plan for the following year.
- The plan of action was created with a team of diverse stakeholders.
- The plan of action was created after carefully evaluating all relevant metrics to include data from multiple sources. These sources may include but are not limited to: the PSU's DLMI data, Digital Learning Progress Rubrics, data from project and program implementations, data provided through program analytics, and data provided through partnering organizations.

**Student Impact:**

- Processes and procedures are created with appropriate resources and support allocated to maximize every student's ability to use technology effectively to improve learning outcomes.
- Through the collection and analysis of data, formation of effective partnerships with stakeholders, and outline measurable goals, each student has the opportunity to learn in a high quality digital teaching and learning environment.

## CATEGORY 2

# HUMAN CAPACITY



Human Capacity is the keystone to ensure that the classrooms of North Carolina's public schools are places of opportunity, innovation, and academic achievement. Through building and expanding the skills, knowledge, and available resources, challenges can be overcome to maximize student success.

## Goal 1 – All staff have continuous access to quality professional learning that is utilized and accessed on a regular basis for continuous growth.

### Department of Public Instruction Objectives:

- Professional learning opportunities for digital teaching and learning are available for all PSU leaders, school administrators, teachers, coaches, School Library Media Coordinators, and technicians.
- State-wide and regional data is assessed and used to design state-wide and regional job specific professional learning opportunities for digital teaching and learning.
- Resources for developing personalized professional learning and individualized support are available to PSUs as they create professional learning that aligns with their vision and meets the needs of their teachers.
- Partnerships with organizations that support professional learning are established, resources provided are aligned with the Digital Learning Plan, and impact and/or use data is assessed and shared.

### Public School Unit Objectives:

- Professional learning opportunities for digital teaching and learning are available for all PSU leaders, school administrators, teachers, coaches, School Library Media Coordinators, and technicians.
- Professional learning is personalized to meet staff needs and includes all of the following: active learning, coaching, feedback and reflection, and choice.
- Data is assessed and used to design job specific professional learning opportunities for digital teaching and learning.

### School Objectives:

- Professional learning for digital teaching and learning is offered to school staff and includes all of the following: alignment with the Digital Learning Competencies, Digital Learning Standards for Students, coaching, feedback, reflection, and choice.

### Student Impact:

- Students benefit from having well trained classroom teachers and other educators who effectively use technology to create transformative learning experiences.
- By having educators who model growth and a willingness to continue to learn, students learn the value of productive failure and its importance to a growth mindset.

## Goal 2 – There is consistent and equitable access to Instructional Technology Facilitators and School Library Media Coordinators to support the implementation of digital teaching and learning strategies.

### Department of Public Instruction Objectives:

- Research, resources, and personalized support is offered to PSUs as they utilize the Instructional Technology Facilitator and School Library Media Coordinator positions.
- Professional learning and a strategic, data-driven, professional learning network is in place for Instructional Technology Facilitators.
- Professional learning and a strategic, data-driven, professional learning network is in place for School Library Media Coordinators.

<ul style="list-style-type: none"> <li>• Reports are prepared for the general assembly, state board of education, and the field that captures current data regarding these roles in North Carolina schools, research around best-practice for these roles, and action step recommendations.</li> </ul>
<p><b>Public School Unit Objectives:</b></p> <ul style="list-style-type: none"> <li>• There is a minimum of 1 full-time Instructional Technology Facilitator at each school location.</li> <li>• There is at least 1 full-time School Library Media Coordinator at each school location on a fully flexible schedule.</li> </ul>
<p><b>School Objectives:</b></p> <ul style="list-style-type: none"> <li>• There is a full-time Instructional Technology Facilitator at the school who is on a fully flexible schedule.</li> <li>• There is a full-time School Library Media Coordinator at the school who is on a fully flexible schedule.</li> </ul>
<p><b>Student Impact:</b></p> <ul style="list-style-type: none"> <li>• Through having experts trained in instructional technology, students maximize their ability to have access to and use technology for an enhanced learning experience.</li> <li>• The student learning experience is improved from having well trained teachers who have access to various expert personnel to support digital teaching and learning, trouble shoot, and serve as thought partners.</li> </ul>
<p><b>Goal 3 – Technical staff is available to effectively support all staff and students with minimal disruptions to teaching and learning.</b></p>
<p><b>Department of Public Instruction Objectives:</b></p> <ul style="list-style-type: none"> <li>• Research, resources, and personalized support is offered to PSUs as they structure their technical staff positions.</li> <li>• Professional learning and a strategic, data-driven, professional learning network is designed for technical staff.</li> <li>• Prepare reports for the general assembly, state board of education, and the field that captures current data regarding these roles in North Carolina schools, research around best-practice for these roles, and action step recommendations.</li> </ul>
<p><b>Public School Unit Objectives:</b></p> <ul style="list-style-type: none"> <li>• There is a ratio of 1 technical support staff member for every 800 devices within the PSU.</li> <li>• There is enough technical support in place to ensure that an average wait time for repair tickets to be assessed and serviced is 24 hours or less.</li> </ul>
<p><b>School Objectives:</b></p> <ul style="list-style-type: none"> <li>• There is enough technical support in place to ensure that an average wait time for repair tickets to be assessed and serviced is 24 hours or less.</li> </ul>
<p><b>Student Impact:</b></p> <ul style="list-style-type: none"> <li>• In having well trained technicians who can quickly diagnose and respond to device issues, disruption to student learning is minimized.</li> </ul>

## CATEGORY 3

# CURRICULUM, INSTRUCTION, & ASSESSMENT



Curriculum, instruction, and assessment are necessary components to engage students and create transformative learning experiences enhanced by digital teaching and learning. Curriculum is the driving force for what students learn in the classroom while instruction describes the delivery methods that engage students in learning. Assessment allows for the determination of what students have learned.

## Goal 1 – All staff have access to and use digital content that is continually vetted and aligns with curriculum and assessment expectations for student learning ability levels.

### Department of Public Instruction Objectives:

- Provide resources, professional learning, and personalized support to DPI divisions and PSUs on the topics of access and useability.
- Provide resources, professional learning, and personalized support to PSUs on Homebase products.
- Provide research, resources, and professional learning on healthy relationships with technology and digital content.
- Provide research, resources and personalized support for evaluating digital resources that assess content for alignment with curriculum standards.
- Research, resources, and professional learning offered are on a regular and documented refresh and review cycle.

### Public School Unit Objectives:

- 100% of all digital resources meet accessibility needs of students.  
*or*  
There are equivalent resources that meet needs to supplant resources that do not meet accessibility needs.
- Interoperability standards are documented and 100% of the digital resources utilized in the PSU meet these standards.
- All digital learning resources are a part of a fully funded sustainability plan.
- Digital resources are a part of a documented and continuous review process that includes all of the following: data analysis of usage, analysis of impact, and documented action steps to keep, improve, or remove these resources.

### School Objectives:

- School purchased digital content is on a documented and continuous review process that includes all of the following: data analysis of usage, analysis of impact, and documented action steps to keep, improve, or remove these resources.
- All staff are aware of digital resources they have access to use with students, understand how to use the resources to improve student learning, are provided professional learning around using the resources effectively, and know where to direct questions about digital resources.

### Student Impact:

- Digital resources that support students learning connected to curriculum standards ensures that students are learning what they should be learning while accessing the appropriate materials needed to show mastery of those standards.
- Resources are provided to support learning at various levels allowing for each student to receive a transformative learning experience enhanced by digital teaching and learning.
- Educators are well trained in the type of digital resources available and empowered to make the best possible choices to support students who learn at different levels and in different ways.

**Goal 2 – Supplemental resources are available to staff and students through physical and digital collections.**

**Department of Public Instruction Objectives:**

- Research, resources, and personalized support is provided for physical library spaces.
- Resources, professional learning and personalized support is provided for digital library collections.
- Data around physical and digital library access for students is collected, analyzed, shared, informs the Digital Learning Action Plan for DPI, and is disseminated in personalized reports for regions and PSUs.

**Public School Unit Objectives:**

- The PSU has a documented library collection plan that is supported by sustainable funding, includes a data informed review process of materials, and gathers input from stakeholder groups.
- Training is provided to all stakeholders on how to access and utilize digital and print resources available through the library collection.

**School Objectives:**

- The library is utilized by staff and students for curricular aligned print books, e-books, subscriptions, research, and interactive learning activities.
- Training is provided to all stakeholders on how to access and utilize digital and print resources available through the library collection.
- Supplemental learning materials are on a documented and continuous review process that includes all of the following: data analysis of usage, analysis of impact, and documented action steps to keep, improve, or remove these resources.

**Student Impact:**

- Flexible learning environments allow for learning to occur in spaces that best support each student individually.
- A variety of resources are available to support the diverse learning needs of all students.

**Goal 3 – All staff demonstrate mastery of the NC Digital Learning Competencies to create blended and personalized learning experiences to improve student outcomes.**

**Department of Public Instruction Objectives:**

- Resources, professional learning, and personalized support is provided to PSUs for blended learning.
- Resources, professional learning, and personalized support is provided to PSUs for personalized learning.
- A statewide bank of instructional resources is available to all educators in North Carolina and houses high-quality lesson plans that support blended and personalized learning for every grade-level and content area.

**Public School Unit Objectives:**

- The PSU has created or adopted an instructional framework that supports blended and personalized learning and provides staff resources, professional learning, and coaching support as they implement this framework.
- Professional learning aligned with the North Carolina Digital Learning Competencies for Administrators, the North Carolina Digital Learning Competencies for Teachers, and the North Carolina Digital Learning Standards for Students is available and used by staff within the PSU.
- Resources that support personalized and blended learning are a part of a documented and continuous review process that includes all of the following: data analysis of usage, analysis of impact, and documented action steps to keep, improve, or remove these resources.

**School Objectives:**

- The majority of lesson plans meet all of the following: alignment with North Carolina Digital Learning Standards for Students, elements of blended learning, personalized learning elements.
- Student work products are readily available that reflect a minimum of 4 of the North Carolina Digital Learning Standards for Students.

**Student Impact:**

- Lesson plans and experiences aligned to the Digital Learning Standards and Digital Learning Competencies ensure that students have personalized learning experiences supported by digital teaching and learning.
- Students learn from educators who are well trained and supported in the use of the Digital Learning Standards and Digital Learning Competencies.

## CATEGORY 4

# DATA PRIVACY & CYBERSECURITY



Data privacy and cybersecurity are fundamental for a positive student learning experience and communicate the importance of digital citizenship. As digital teaching and learning experiences become more integrated into instruction, these areas are critical for the access, safety, and success of students.

## Goal 1 – Align data privacy and cybersecurity policies and procedures with current best practice and federal and state laws.

### Department of Public Instruction Objectives:

- Resources and professional learning opportunities are personalized for PSUs to create and align data privacy policies and procedures to current best practices and federal and state laws.
- Resources and professional learning opportunities are personalized for PSUs to create and align cybersecurity policies and procedures to current best practices and federal and state laws.

### Public School Unit Objectives:

- Data privacy and cybersecurity documentation is available and accessible to necessary personnel, aligns with relevant laws and current best practice, and is on a documented yearly refresh and review cycle.
- A PSU policy governing specific requirements in usage agreements and privacy policies is in place, is in alignment with current best practices, and is on a documented yearly refresh and review cycle.

### School Objectives:

- School leadership, teachers, and students understand and practice data privacy and cybersecurity best practices.
- School leadership, teachers, staff, and students understand usage agreements and privacy policies.

### Student Impact:

- Data privacy and cybersecurity practices ensure that students learn in a safe digital teaching and learning environment.

## Goal 2 – Implement a process for continuous improvement of data protection and risk management.

### Department of Public Instruction Objectives:

- Resources and professional learning support are personalized for PSUs to implement continuous improvement of data protection and risk management.

### Public School Unit Objectives:

- All data privacy and cybersecurity resources (including human, software, and hardware) are a part of a fully funded sustainability plan.
- A data privacy and cybersecurity team is identified, meets regularly to assess risks, and runs mock security disaster drills.
- There is a documented continuous improvement process in place for data privacy and cybersecurity that includes at least the following: role based permissions, data privacy incident plans, and professional learning needs of the data privacy and cybersecurity team.

### School Objectives:

- The methods used to train school leadership, teachers, staff, and students to understand usage agreements, data privacy practices, and privacy policies is on a documented refresh and review cycle to ensure alignment with PSU priorities, participant need, and best practices.

<p><b>Student Impact:</b></p> <ul style="list-style-type: none"> <li>• Staff model best digital citizenship practices for students to emulate.</li> </ul>
<p><b>Goal 3 – Provide and communicate professional learning around the importance of cybersecurity and data privacy for all stakeholders.</b></p>
<p><b>Department of Public Instruction Objectives:</b></p> <ul style="list-style-type: none"> <li>• A state-wide initiative to provide cybersecurity and data privacy education and resources to families and K-12 employees has been launched, evaluated, and refined on a continuous, documented cycle.</li> </ul>
<p><b>Public School Unit Objectives:</b></p> <ul style="list-style-type: none"> <li>• Training and awareness campaigns focused on data privacy and responsible use are available to all stakeholders and required for staff and students.</li> </ul>
<p><b>School Objectives:</b></p> <ul style="list-style-type: none"> <li>• Training and awareness campaigns focused on data privacy and responsible use are available to all stakeholders and required for staff and students.</li> </ul>
<p><b>Student Impact:</b></p> <ul style="list-style-type: none"> <li>• Students learn in a digital teaching and learning environment that is safe and healthy.</li> </ul>

## CATEGORY 5

# TECHNOLOGY, INFRASTRUCTURE, & DEVICES



Technology, infrastructure, and devices serve as necessary components in digital teaching and learning. By ensuring that all students have equitable access to updated devices with modern technology and internet access, student learning outcomes improve. Regular updates and maintenance of technology, infrastructure, and devices are necessary for continuous improvement.

## Goal 1 – Learning spaces are equipped with appropriate, functional technology to facilitate student growth and learning.

### Department of Public Instruction Objectives:

- Resources, professional learning and personalized support are provided to PSUs for equipping learning spaces with appropriate, functional technology to facilitate student growth and learning.
- Data around hardware access for students is collected, analyzed, shared, informs the Digital Learning Action Plan for DPI, and is disseminated in personalized reports for regions and PSUs.

### Public School Unit Objectives:

- The PSU has the ability for every student to take home a digital learning device that meets their learning needs at a ratio of 1 device per student.
- The PSU has the ability for every staff member to take home a device that meets the needs of their job at a ratio of 1 device per staff member.
- All hardware purchased for student and staff use in and out of the classroom is a part of a fully funded and sustainable refresh and review plan.
- All software needed to manage and inventory PSU assets are a part of a fully funded and sustainable refresh and review plan.

### School Objectives:

- The school has the ability for every student to take home a digital learning device that meets their learning needs at a ratio of 1 device per student.
- The school has the ability for every staff member to take home a device that meets the needs of their job at a ratio of 1 device per staff member.
- All hardware purchased through school based funds is a part of a fully funded and sustainable refresh and review plan.

### Student Impact:

- Students have access to devices and resources that support enhanced learning experiences.

## Goal 2 – All schools have the infrastructure to support digital teaching and learning.

### Department of Public Instruction Objectives:

- Resources, professional learning and personalized support are provided to PSUs for equipping learning spaces with appropriate, functional network infrastructure to facilitate student growth and learning.
- Resources, professional learning, and personalized support are provided to PSUs for E-Rate.

### Public School Unit Objectives:

- All infrastructure related resources (including human, software, and hardware) are a part of a fully funded sustainability plan.
- There is a documented continuous improvement process in place for infrastructure needs that includes at least the following: policies, procedures, inventory, and professional learning needs of the technical team.

<p><b>School Objectives:</b></p> <ul style="list-style-type: none"> <li>• School leadership, staff, and students have access to high speed internet and digital resources with less than 5% disruption of service.</li> </ul>
<p><b>Student Impact:</b></p> <ul style="list-style-type: none"> <li>• Students benefit from a robust infrastructure that creates transformative learning experiences enhanced by technology.</li> </ul>
<p><b>Goal 3 – Students and staff have appropriate access to the internet at school and their residence.</b></p>
<p><b>Department of Public Instruction Objectives:</b></p> <ul style="list-style-type: none"> <li>• Off campus internet access data for students is collected, analyzed, shared, informs the Digital Learning Action Plan for DPI, and is disseminated in personalized reports for regions and PSUs.</li> </ul>
<p><b>Public School Unit Objectives:</b></p> <ul style="list-style-type: none"> <li>• There is a documented continuous improvement process in place for network needs that includes at least the following: policies, procedures, inventory, and professional learning needs of the technical team.</li> <li>• Data around internet access for students at home is collected, analyzed, shared, informs the PSU action plan, and is used to develop partnerships for connecting students.</li> </ul>
<p><b>School Objectives:</b></p> <ul style="list-style-type: none"> <li>• Data around internet access for students at home is collected, analyzed, shared, informs the PSU action plan, and is used to develop partnerships for connecting students.</li> </ul>
<p><b>Student Impact:</b></p> <ul style="list-style-type: none"> <li>• Students have consistent access to high speed internet that enhances their learning and allows them to compete globally with others.</li> <li>• Students have access to resources to maximize their learning experience.</li> </ul>

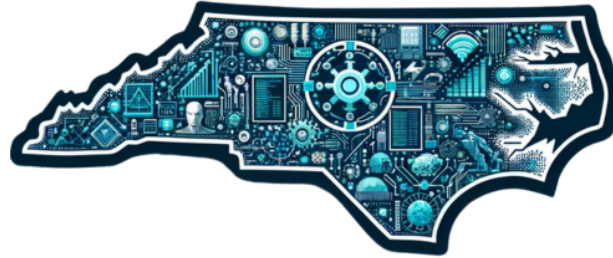
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# North Carolina Generative AI Implementation Recommendations and Considerations for PK-13 Public Schools

**Publication Date 1/16/24**

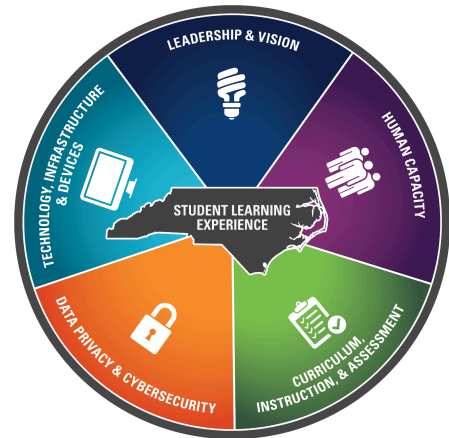


[https://go.ncdpi.gov/AI\\_Guidelines](https://go.ncdpi.gov/AI_Guidelines)

## 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.

Direct questions about this document to [Vera Cubero](#) or [Dr. Ashley McBride](#).

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## 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	<ul style="list-style-type: none"> <li>• Minor technical edits/corrections</li> <li>• Added Version History page p. 2</li> <li>• Added example prompts p. 20</li> <li>• Reorganized AI Literacy Recommendations by Grade Span and added new recommendations p. 17</li> <li>• Added new resources to Appendix p. 33</li> </ul>
2/18/2024	03	<ul style="list-style-type: none"> <li>• Technical corrections</li> </ul>
3/4/2024	04	<ul style="list-style-type: none"> <li>• Added Student Facing AI Tools p. 19</li> </ul>
3/5/24	05	<ul style="list-style-type: none"> <li>• Added AI Resistant, AI Assisted, AI Partnered Assignments p. 29</li> </ul>
3/20/24	06	<ul style="list-style-type: none"> <li>• Updated Student-Facing Tools paragraph p.18;</li> <li>• Removed Student Facing AI Tools graphic (was on p. 19) for updates</li> </ul>
4/11/24	07	<ul style="list-style-type: none"> <li>• Added more guidance on Student Facing Tools p. 19 in light of new student-facing built-for-education models</li> </ul>
4/28/24	08	<ul style="list-style-type: none"> <li>• Added resources- New Teach AI Policy, National Ed Tech Plan 2024</li> <li>• Updated AI Assessment Scale to AI to ‘Student AI Integration: 0 to Infinity’ p. 25</li> </ul>
8/5/24	09	<ul style="list-style-type: none"> <li>• Added links to editable Procurement/ Evaluation Tools p.11</li> <li>• Clarified guidance around student-facing AI use by grade span p. 17</li> <li>• Added link to 0 to Infinity GPT to p. 26</li> <li>• Updates to AI for Accessibility based on recent developments p. 32</li> <li>• Added guidance around deep fakes and cyberbullying p.33</li> </ul>

*Direct questions about this document to [Vera Cubero](#) or [Dr. Ashley McBride](#) .*

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Date	Version	Changes and Updates
11/15/24	10	<ul style="list-style-type: none"> <li>● Update: Gemini Teen now available 13 + p. 22</li> <li>● Updated EVERY framework Graphic p. 27</li> <li>● Additions to Accessibility: p.35</li> <li>● New Resources Added to the Appendix               <ul style="list-style-type: none"> <li>○ AI Foundations for Educators Course added for educators Common Sense Media</li> <li>○ AI Parent Guide by Common Sense Media</li> <li>○ Avoiding Discriminatory Use of AI by US Dept. of Ed Office of Civil Rights</li> </ul> </li> </ul>
11/27/24	11	<p>Changed from PDF to Google Doc for improved accessibility.            Added <a href="#">long description links</a> 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</p>
1/2/25	12	<p>Added 3 GPTs to support staff training on the included frameworks:</p> <ul style="list-style-type: none"> <li><input type="checkbox"/> CRAFT Prompt Wizard GPT p. 25</li> <li><input type="checkbox"/> Responsible Use EVERY Time GPT p. 28</li> <li><input type="checkbox"/> 0 to Infinity GPT p. 35</li> </ul>
2/2/2025	13	<p>P. 11 Updated graphic to compare LLM models Jan. 30, 2025  <a href="https://go.ncdpi.gov/ComparingLLMs">https://go.ncdpi.gov/ComparingLLMs</a>            P. 44 &amp; 45 Added resources to Resources Section- Identified with 🌟 New</p>
6/19/25	14	<p>!!New guidance about the growing concern of AI social companions (p 18)            Appendix- added new resources for K12 School Leaders and Staff Development</p>
7/24/25	15	<p>Significant refresh based on recent developments:</p> <ul style="list-style-type: none"> <li>● Moved ancillary materials to separate tabs as Appendix A-E</li> <li>● Updated Introduction and Leadership &amp; Vision Intro: P. 5-7</li> <li>● Added details to the 'AI Implementation Roadmap' p. 10</li> <li>● Added 'Environmental Concerns' &amp; table with model selection tips P. 16</li> <li>● Added 'Google Gemini Update' to P. 14</li> <li>● Refresh of 'Human Capacity' section to align with new OECD AI Literacy Framework P. 20-25               <ul style="list-style-type: none"> <li>○ Updated AI Literacy Timeline P. 20-21</li> <li>○ Updated guidance on shifting pedagogical approaches in light of AI progress P. 22-24</li> </ul> </li> <li>● Updated guidance on prompting P. 25-26</li> <li>● New Interactive student tool for the EVERY framework P. 26</li> <li>● Updates to COPPA P. 32</li> <li>● CRAFT framework v. 2.0 with Powerups Appendix C</li> </ul>

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Date	Version	Changes and Updates
7/28/25	16	<ul style="list-style-type: none"> <li>• Technical correction- updated links to images</li> </ul>
8/28/25	17	<ul style="list-style-type: none"> <li>• 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.</li> </ul>
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	<ul style="list-style-type: none"> <li>• Added Appendix D: <a href="#">Technical Assistance: Acceptable Use of AI for Special Education Teachers and Related Service Providers</a></li> <li>• NEW Resources for ADMIN: <a href="#">AI Chatbots in Schools: A Practical Guide to Safety, Liability, and Mandated Reporting by Innovate EdDU</a> Appendix E</li> </ul>
1/29/26	21	<ul style="list-style-type: none"> <li>• Added introduction to the Human Agency &amp; POG Durable Skills framework on P. 30</li> <li>• Added <a href="#">Appendix F: Human Agency + NC POG Durable Skills</a> (including example tasks)</li> <li>• New resource for district leaders: SAIFCA (Safe AI for Children Alliance)- Updated Guidance on Schools Sharing Children's Photos Online <a href="https://www.safeaiforchildren.org/guidance-on-sharing-childrens-photos/">https://www.safeaiforchildren.org/guidance-on-sharing-childrens-photos/</a></li> </ul>
2/2/26	22	<ul style="list-style-type: none"> <li>• Added the Human Agency &amp; Judgement Gem (<a href="#">Appendix F</a>) <a href="https://go.ncdpi.gov/Judgement-Agency-Architect-Gem">go.ncdpi.gov/Judgement-Agency-Architect-Gem</a></li> <li>• Added guidance around autonomous agentic AI systems such as OpenClaw (p. 37)</li> </ul>
2/13/26	23	<ul style="list-style-type: none"> <li>• New resource for parents- 🧑🏫 <a href="#">NEW Tips for Raising Resilient Learners in an AI World</a> by the Brookings Institute in <a href="#">Appendix E: Parents/Guardians</a></li> </ul>
2/25/26	24	<ul style="list-style-type: none"> <li>• New guidance on AI-Powered toys (p. 19)</li> <li>• Excellent New Webinar and resources by AI for Education and Common Sense Media about AI Toys and Social Companions in <a href="#">Appendix F</a></li> <li>• Added <a href="#">Appendix G</a> resources "Micro PBL 2.0" informational guide with apps for educators to co-create standards-aligned Micro PBL 2.0 projects.</li> </ul>

Direct questions about this document to [Vera Cubero](#) or [Dr. Ashley McBride](#) .

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## 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:

- **Multimodal 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
- **Agentic 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.<sup>1</sup>

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.<sup>2</sup> 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.<sup>3</sup>

*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

<sup>1</sup> World Economic Forum. *Future of Jobs Report 2025*. Insight Report, World Economic Forum, 2025, pp. 12–18.

<sup>2</sup> Bubeck, Sébastien, et al. "Sparks of Artificial General Intelligence: Early Experiments with GPT-4." [arXiv,https://arxiv.org/pdf/2303.12712](https://arxiv.org/pdf/2303.12712) 2023.

<sup>3</sup> 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.”<sup>4</sup> 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

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

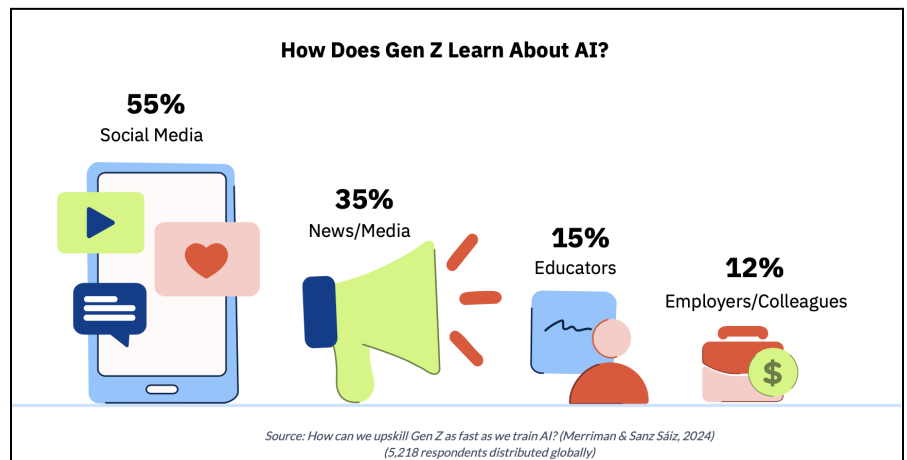
## Leadership and Vision

**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.”<sup>5</sup> 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.<sup>6</sup>

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,

<sup>5</sup> TeachAI Toolkit. Code.org, 2023, <https://www.teachai.org/toolkit>.

<sup>6</sup> 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](https://ailiteracyframework.org/wp-content/uploads/2025/05/AILitFramework_ReviewDraft.pdf).

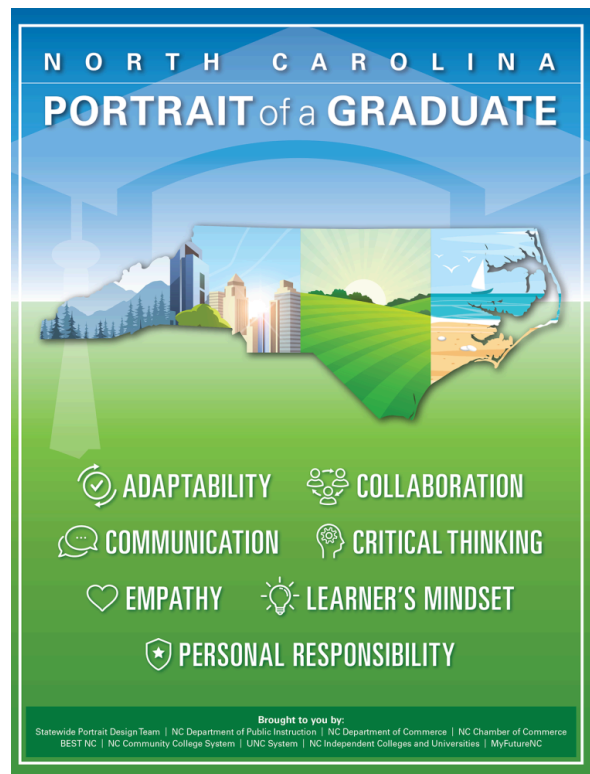
regardless of zip code, family income, disability, or any other factor is prepared for the world they will inherit. To do this, leadership teams must define a clear AI vision, build local policy, vet AI tools for privacy and compliance, and establish professional development pathways for educators. In 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.<sup>7</sup> 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:

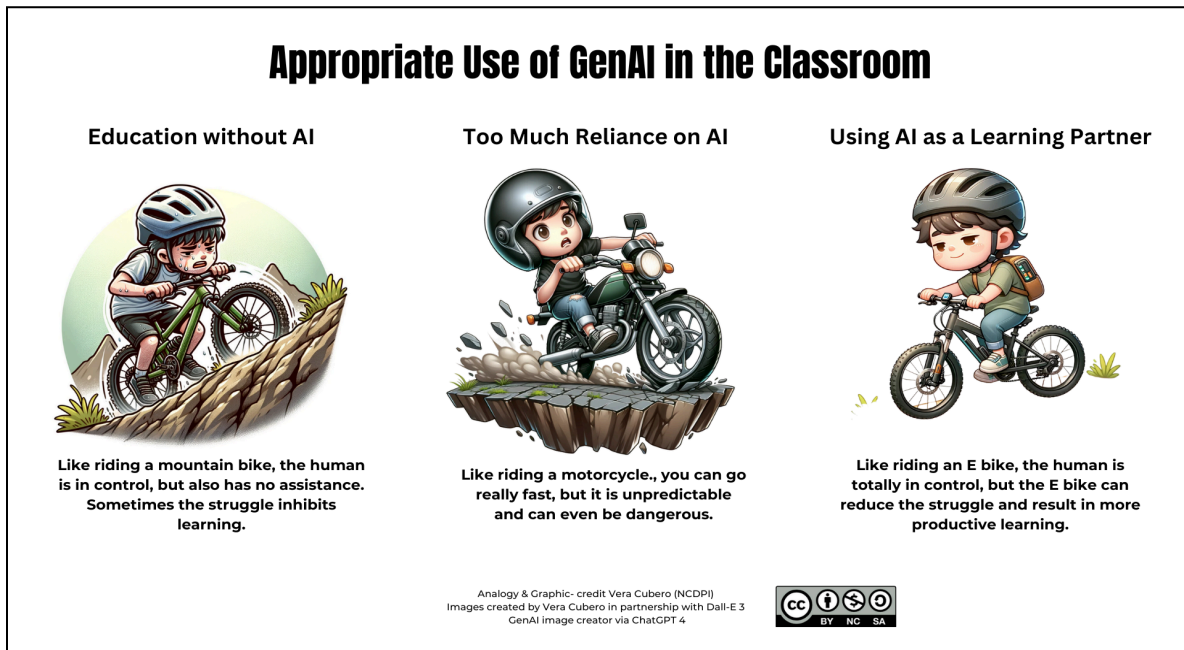
- **Adaptability:** Adjust policies as AI evolves.
- **Collaboration:** Build cross-functional teams for policy, training, and curriculum.
- **Communication:** Engage communities with clarity, transparency, and empathy.
- **Critical Thinking:** Evaluate AI tools rigorously.
- **Empathy:** Center AI policy, 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.



### Appropriate Use of GenAI in Education

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

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.<sup>8</sup> 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](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.

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.

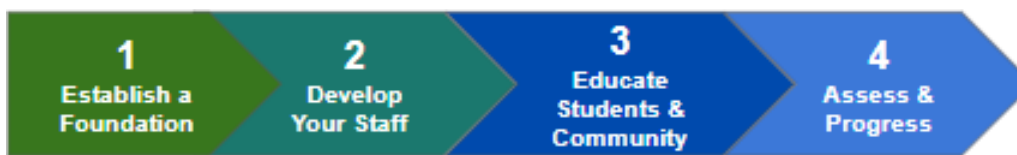
<sup>8</sup> *Artificial Intelligence and the Future of Teaching and Learning: Insights and Recommendations*. U.S. Department of Education, May 2023, <https://tech.ed.gov/ai-future-of-teaching-and-learning/>.

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](#)',<sup>9</sup>



### 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.
  - 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.

<sup>9</sup> 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.

- **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

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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' <sup>10</sup>

### 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
  - 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.

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<sup>10</sup> "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.

- 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
<b>Kick-off Assembly</b>	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.
<b>Faculty or PLC Meetings</b>	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.”
<b>Open House / Parent Meeting</b>	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.
<b>AI Literacy Week</b>	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.
<b>Classroom Scenarios</b>	Students (by class/grade)	Teacher-guided role-play & prompt analysis	Teach → Model → Discuss → Reinforce acceptable versus unacceptable AI use; students label examples.
<b>Policy Exploration Workshops</b>	Mixed stakeholder teams	Half-day design sprint	Map current integrity policy to the AI era; draft addendum; identify support needs.
<b>Peer-Educator Campaign</b>	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 that launched in August 2025, introduced 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.<sup>11</sup>

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

**Quick Guidance on Model Selection:**

	<b>Base (Non-reasoning) Models - Generally available on Free plans</b>	<b>Reasoning Models</b>	<b>Deep Research Models</b>
<b>Current models</b>	ChatGPT 5.2 Gemini 3 Flash, Claude Opus 4.5 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’
<b>When to use</b>	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.
<b>Example Use Cases</b>	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
<b>Example Prompt</b>	Draft a 250-word summary of Chapter 3 of Hatchet at roughly Lexile 750L for a 5th grade student. End with one comprehension question and keep the tone upbeat.	Design a 3-day inquiry lesson on 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.	“Generate a policy brief (< 1,500 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.”
<b>Why it fits</b>	Single-shot content creation	Chains of thought, task	Requires autonomous web search,

<sup>11</sup>“Introducing OpenAI o1.” *OpenAI*, 5 Dec. 2024, <https://openai.com/o1/>. Accessed 7 May 2025.

<b>the model</b>	with no multi-step reasoning or external research needed.	decomposition, alignment to standards, hypothetical reasoning	multi-source synthesis, structured citations—work suited to deep-research agents.
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## 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.

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 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 will likely increase into the future.

### **Social AI Companions & AI Toys: Growing Concerns**

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

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NCDPI agrees with this assessment. These tools raise significant red flags that school leaders must understand and address.<sup>12</sup>

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.<sup>13</sup> A recent study by Common Sense Media found that 72% of teens have used AI companions, with 52% using them multiple times a month.<sup>14</sup> 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 of our students **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 increasingly AI-enabled world.

**Mitigating the risk:** Because the risks of AI companions 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.

### ***AI-Powered Toys***

AI-powered toys are an emerging concern. Their outputs can be unpredictable and hard for adults to supervise in real time, creating risk of unsafe or inappropriate conversations and persuasive dynamics that children may not recognize. This category now includes major-market signals, such as Mattel’s announced collaboration with OpenAI to develop AI-powered products and experiences<sup>15</sup>, alongside already-available WiFi-connected and always-listening “conversation” toys like Curio’s Grem<sup>16</sup>.

These toys may also undermine children’s social development by reinforcing sycophantic, always-agreeable interaction patterns rather than practicing real-world skills like disagreement, and perspective-taking.

AI-powered toys also raise data privacy risks as children’s voice interactions may be transmitted, stored, or shared, increasing the possibility of exposure or breach.

For these reasons, NCDPI strongly recommends against the use of AI toys by children at this time. Current AI technology is simply too new, too misunderstood, and too unpredictable to trust in the hands of children.

However, the growing availability of AI-enabled toys and proliferation of AI social companions is further

<sup>12</sup>“Social AI Companions.” *Common Sense Media*, <https://www.common Sense Media.org/ai-ratings/social-ai-companions>. Accessed 7 May 2025.

<sup>13</sup> “Top 10 GenAI Use Cases: 2024 vs. 2025.” *Harvard Business Review*, Filtered.com, 2025. Accessed 8 May 2025.

<sup>14</sup> “Talk, Trust, and Trade-Offs: How and Why Teens Use AI Companions.” *Common Sense Media*, <https://www.common Sense Media.org/research/talk-trust-and-trade-offs-how-and-why-teens-use-ai-companions> . Accessed 24 July 2025.

<sup>15</sup> Mattel, Inc. “Mattel and OpenAI Announce Strategic Collaboration.” *Mattel Newsroom*, 12 June 2025, corporate.mattel.com/news/mattel-and-openai-announce-strategic-collaboration. Accessed 25 Feb. 2026.

<sup>16</sup> Curio Interactive Inc. “Privacy Policy.” *Curio*, last modified 24 Jan. 2024, heycurio.com/privacy. Accessed 25 Feb. 2026.

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evidence of the urgent need for AI literacy in schools so students can identify system limitations, privacy risks, and manipulation patterns and make safer choices.

See [Appendix E](#): Parents for timely and important resources about AI Social Companions and AI Toys.

### **Key Concerns of Social Companions and Toys 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 are prone to sycophancy, tending to agree with and attempt to please the user rather than provide correction. This behavior can contribute to a user's misaligned and even dangerous intent and stunt the development of dealing with disagreement or conflict; an important social skill. In some instances, 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.<sup>17</sup> While this is a new development, NCDPI will monitor it closely and update this guidance as needed.

### **AI Literacy Is 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)<sup>18</sup>*

<sup>17</sup> "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.

<sup>18</sup> 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.

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## 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”<sup>19</sup>

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.

<sup>19</sup> “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.<sup>20</sup> 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**.

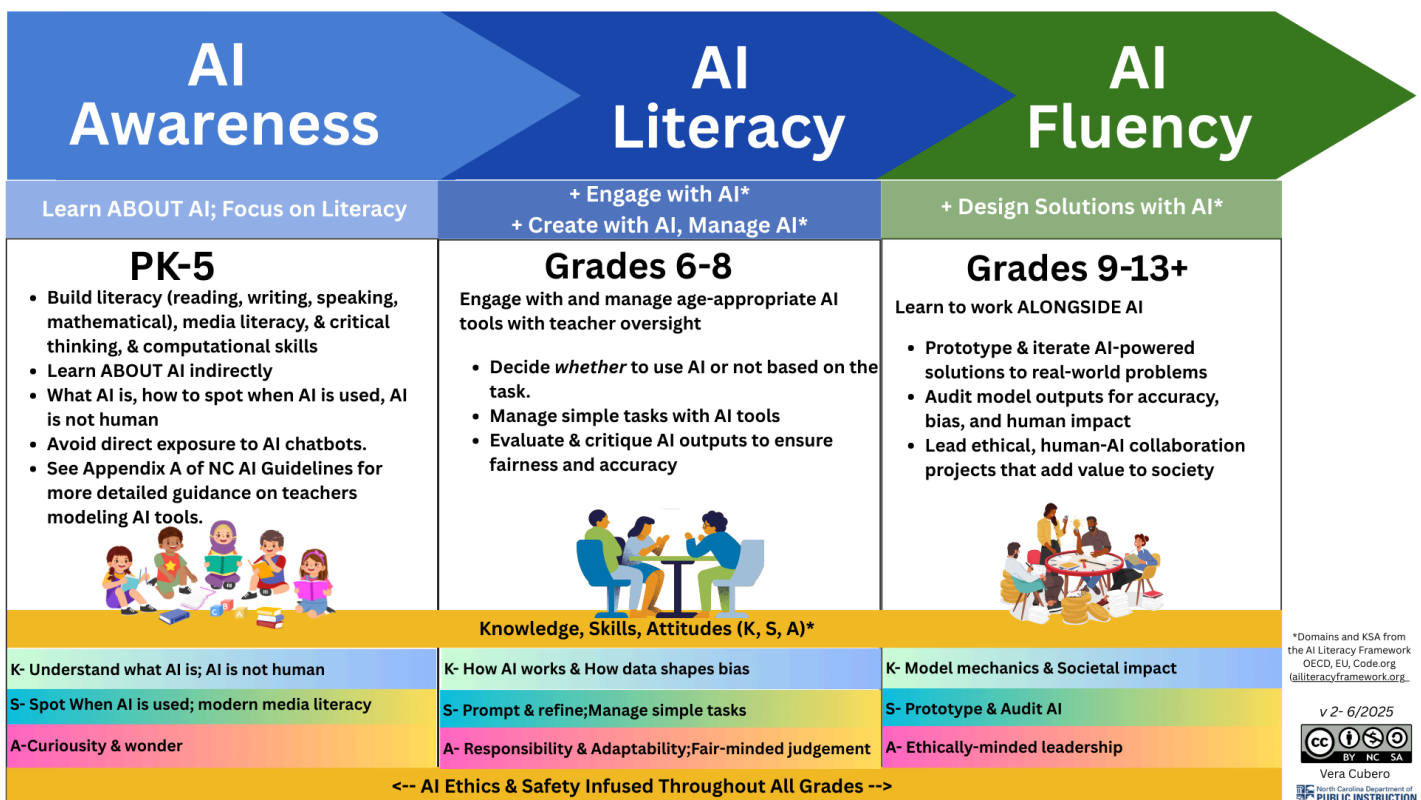
### **AI Awareness: Learn ABOUT AI with focus on literacy (Grades PK–5)**

<sup>20</sup> 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/>.

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- **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.



\*Domains and KSA from the AI Literacy Framework OECD, EU, Code.org (alliteracyframework.org)

v 2- 6/2025



Vera Cubero

North Carolina Department of PUBLIC INSTRUCTION

- Download this image for printing: [go.ncdpi.gov/NC-AI-Lit-Timeline-v2](https://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](#)

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## 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. 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.

North Carolina's Strategic Plan 2025-2030 recognizes the need for safe, responsible, ethical use of AI and collaborative problem-solving as integral to the modern educational experience.

*Establish scalable approaches to embed artificial intelligence safely, responsibly and ethically, and ensure collaborative problem-solving is included in the learning experience.*

*"Achieving Academic Excellence" North Carolina Strategic Plan [Pillar 1.F4.A5]*

**See Appendix G:** Micro PBL 2.0 for an informational explanation of PBL 2.0 as well as access to two apps teachers can use to co-create standards-aligned Micro PBL 2.0.

### Redefining the Teacher's Role and Human Skills Development:

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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.

Direct questions about this document to [Vera Cubero](#) or [Dr. Ashley McBride](#).  
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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<sup>21</sup>. Sam Altman's comment that extra "please/thank-you" tokens cost OpenAI "tens of millions" in electricity also highlights a teachable link between concise language and stewardship of the environment<sup>22</sup>.

<sup>21</sup>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](https://medium.com/@dan_43009/how-polite-should-we-be-when-prompting-llms-0c0dd9c9e06c). Accessed 7 May 2025.

<sup>22</sup>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-1721523>. Accessed 7 May 2025.

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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<sup>23</sup>. 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.

### The Core Principle

**Instructional redesign protects the Irreplaceable Core:**

- Thinking
- Judgment
- Ethical decision making
- Personal Responsibility

<sup>23</sup>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.

## "AI should increase cognitive demand, not reduce it."

### The Teacher's Role

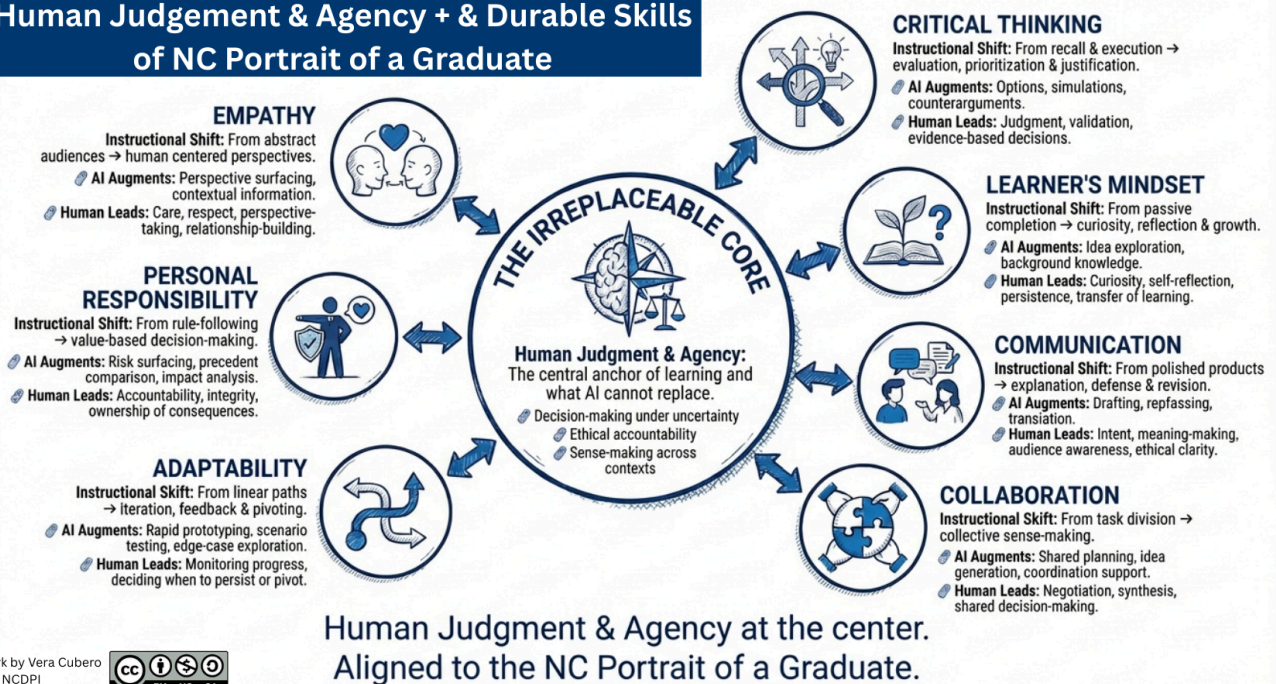
#### Non-Negotiables

- 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?

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



You may review the framework along with example student tasks in [Appendix F](#).

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## 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.<sup>24</sup>

### 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, but only the human-created portions qualify.<sup>25</sup> Because generative AI is still somewhat new, there will likely be further litigation surrounding AI and copyright.

<sup>24</sup> 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](http://www.aiforeducation.io/ai-resources/how-to-use-ai-responsibly-every-time). Accessed 2 May 2025.

<sup>25</sup> 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.

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>

## 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.<sup>26</sup> 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](#).



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

	Levels	Full Description
<b>0</b>	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.
<b>1</b>	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
<b>2</b>	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.
<b>3</b>	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.
<b>4</b>	 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](#)




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<sup>26</sup> Leon Furze. "Updating the AI Assessment Scale." *LeonFurze.com*, 28 Aug. 2024, <https://leonfurze.com/2024/08/28/updating-the-ai-assessment-scale/>.

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	Levels of AI Use	Can I Use AI on this Assignment? If so, How?	How must I disclose my use of AI?
<b>0</b>	<b>AI Free</b>	No. You may NOT use AI at any point or in any way during this assessment. 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>"I attest that I did not use any form of AI to complete this work and it demonstrates my own knowledge and skills."</i>
<b>1</b>	<b>AI Planning</b>	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>"I used ChatGPT 4o to brainstorm and plan my ideas, and to research my topic."</i>
<b>2</b>	<b>AI Collaboration</b>	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>"I used Gemini 2.5 to brainstorm, research, draft, and evaluate my work."</i>
<b>3</b>	<b>Full AI Use</b>	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>"I used ChatGPT 4o as a thought partner throughout the completion of this work."</i>
<b>4</b>	 <b>AI Exploration</b>	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>"I used Gemini 2.5 to brainstorm, research, draft, and evaluate my work."</i>

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## 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.

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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.<sup>27</sup>

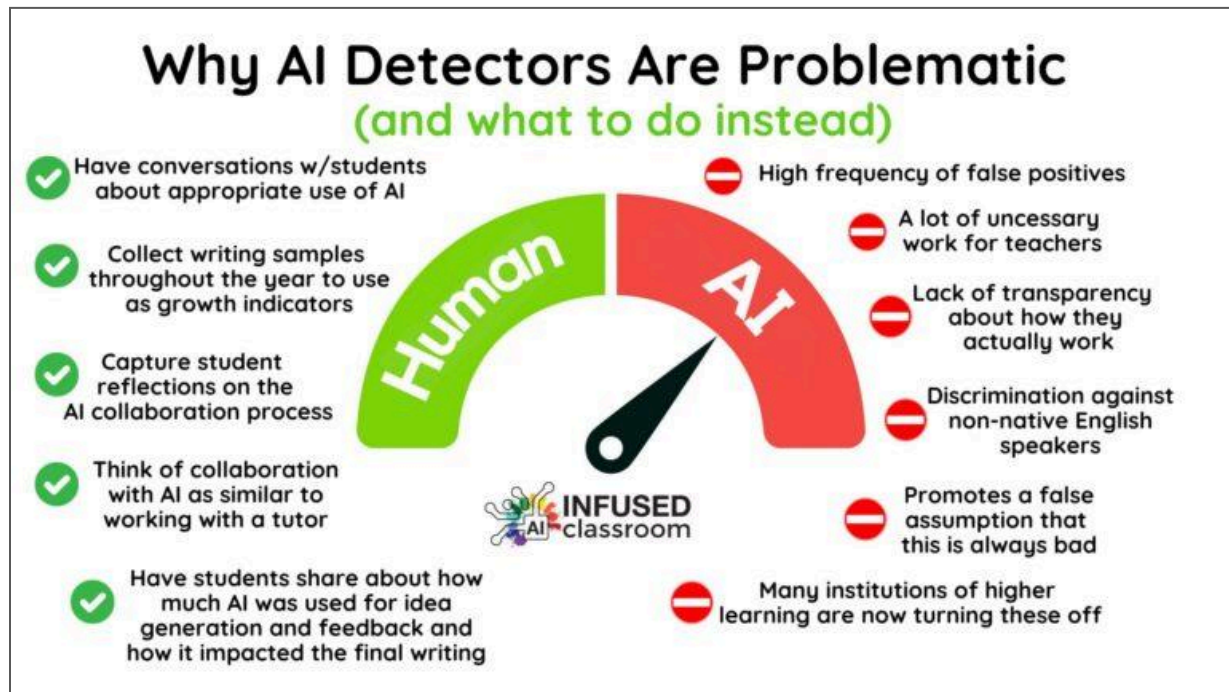


Image credit: Use with permission from Holly Clark of The Infused Classroom, <https://www.hollyclark.org/2023/09/22/why-ai-detectors-are-problematic-and-what-to-do-instead/>

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.

<sup>27</sup> 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/](https://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

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- **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<sup>28</sup> for a clear and easy to understand overview of OpenClaw.

### **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

<sup>28</sup> 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.

images.<sup>29</sup> 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.<sup>30</sup>
- 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](#)<sup>31</sup>

## 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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<sup>29</sup> 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.

<sup>30</sup> 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.

<sup>31</sup> 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](https://fpf.org/wp-content/uploads/2025/03/FPF-Deep-Fake_illo03-FPF-AI.pdf).

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## 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.<sup>32</sup>
  - 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 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.

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<sup>32</sup> 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](https://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.<sup>33</sup>

## 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.

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<sup>33</sup> 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.

*Direct questions about this document to [Vera Cubero](#) or [Dr. Ashley McBride](#) .*

*This is a Living Document for an Evolving Future: last updated 2/25/2026. See [Update Log](#) for update details*

## 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<sup>34</sup>

### 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<sup>35</sup>
- [EdTech Evaluation Tool](#) from EdTech Center @ World Education Workforce EdTech Tools

<sup>34</sup> "Top 5 Questions for GenAI EdTech Providers." *AI for Education*, 23 Oct. 2024, [www.aiforeducation.io/ai-resources/questions-genai-edtech](http://www.aiforeducation.io/ai-resources/questions-genai-edtech). Accessed 26 Apr. 2025.

<sup>35</sup> "GenAI Rubric for NC School Districts." *Google Docs*, n.d., [https://docs.google.com/document/d/1CEn\\_AzVpoTJLg3gQmJFolkui3Hsfv9gHXETELjsIBVY/edit](https://docs.google.com/document/d/1CEn_AzVpoTJLg3gQmJFolkui3Hsfv9gHXETELjsIBVY/edit). Accessed 2 May 2025.

**DRAFT**  
**ScreenTime  
Guidelines**

**Scan Me to Listen to  
the Audio Version**



[go.ncdpi.gov/notebookScreenUseGuidelines](https://go.ncdpi.gov/notebookScreenUseGuidelines)

# Guidance for Purposeful Screen Use in Schools

## Purpose

Schools across the country are navigating growing concerns from families and communities about student screen time. This guidance is intended to provide clarity and a shared understanding grounded in research, student voice, and educational best practice.

Today's students experience technology as an integrated part of their learning, communication, and daily life. As one student shared, *"Most of our lives are on our devices. We don't really see a separation anymore."* This reality requires schools to move beyond reactive approaches and toward intentional guidance that supports healthy habits.

This guide expands on existing screen time principles to provide research-based, actionable practices for schools and teachers across grade levels. The goal is not to eliminate screens, but to help students develop healthy, intentional, and developmentally appropriate digital habits that support learning, well-being, and long-term self-regulation.

## What Research Tells Us About Screen Use

A growing body of research from national health, education, and child development organizations indicates that both unrestricted and completely eliminated screen use are ineffective approaches. High levels of unstructured recreational screen use have been associated with sleep disruption, reduced attention, and mental health concerns (Adelantado-Renau et al., 2019; Centers for Disease Control and Prevention [CDC], 2023; American Psychological Association [APA], 2025). At the same time, the American Academy of Pediatrics does not recommend eliminating screens entirely, recognizing that digital tools can support learning, communication, and access when used intentionally (American Academy of Pediatrics [AAP], 2026).

Specifically, research indicates that the effects of screen use are not determined by time alone. The type of content, the purpose for use, and the context in which screens are used all influence outcomes (AAP, 2026). For example, interactive and educational uses of technology may support engagement and skill development, while prolonged,

unstructured recreational use may crowd out sleep, physical activity, or face-to-face interaction. This distinction underscores the importance of structure, and developmental appropriateness rather than relying solely on strict time limits.

## The American Academy of Pediatrics “5 Cs” of Healthy Media Use

The American Academy of Pediatrics recommends evaluating media use through five key considerations, often referred to as the “5 Cs” (AAP, 2026):

- Child – The age, developmental stage, and individual needs of the student
- Content – The quality and purpose of what is being viewed or used
- Calm – Whether screens are being used in ways that support or replace healthy emotional regulation
- Crowding Out – What screen use may be replacing (sleep, movement, reading, relationships)
- Communication – Ongoing dialogue between adults and students about expectations and habits

This framework reinforces that healthy screen use depends on developmental appropriateness, intentional design, and shared responsibility rather than strict time limits alone.

The guidance found in this resource reflects a research-based approach by differentiating between active and passive screen use and by emphasizing structure and purpose.

## Passive Screen Use

Passive screen time includes any activity where the student is primarily the consumer of content, with little to no interaction, decision-making, or creation.

Passive screen use is not inherently negative. In many cases, it plays an important role in learning, access, and engagement, particularly when it supports reading, exposure to new ideas, or accessibility needs (American Academy of Pediatrics [AAP], 2026). The impact of passive screen use depends on why it is being used and what it replaces in a student’s day (Adelantado-Renau et al., 2019).

## Purposeful Passive Screen Use

Passive screen use can be appropriate, valuable, and necessary when it is intentional and aligned to learning goals. In evaluating whether passive screen use supports students, educators and families may consider several key factors consistent with the American Academy of Pediatrics' "5 Cs" framework: the developmental needs of the child, the quality of the content, what the screen use may be crowding out, whether it supports emotional calm in healthy ways, and the role of ongoing communication about expectations (AAP, 2026).

Passive screen use may support learning when it:

- Provides access to reading materials that may not otherwise be available in print
- Supports students with disabilities through tools such as text-to-speech, audiobooks, adjustable fonts, captions, or translation
- Allows students to engage with complex or grade-level texts through listening while reading
- Expands access to diverse texts, perspectives, and languages beyond what is available in a classroom or home library
- Supports sustained reading, listening, or viewing as part of a broader learning experience

For many students, digital reading and listening are not substitutes for learning, they are the pathway to it (AAP, 2026). When the content is purposeful, developmentally appropriate, and part of a broader instructional plan, passive screen use can meaningfully support growth.

### When Passive Screen Use Needs Boundaries

Passive screen use becomes a concern not because it is passive, but when it is unstructured, prolonged, or begins to crowd out other essential experiences (Adelantado-Renau et al., 2019). When evaluating boundaries, it is important to consider what screen use may be replacing, including sleep, movement, face-to-face interaction, sustained reading in multiple formats, or opportunities for active learning (Centers for Disease Control and Prevention [CDC], 2023).

Concerns may arise when passive screen use:

- Replaces sleep, physical movement, or face-to-face interaction
- Becomes background noise rather than an intentional activity
- Is a default filler rather than used for a clear purpose

- Contributes to divided attention (e.g., watching content while attempting other tasks)

Examples that may require clearer boundaries include:

- Endless scrolling or auto-play content without purpose
- Background videos during independent work time
- Prolonged passive viewing late at night that disrupts sleep
- Watching content while “doing homework,” resulting in reduced focus

While passive screen use can support access and understanding when used intentionally, deeper learning often requires students to move beyond receiving content and into active engagement.

## Active Screen Use

Active screen use involves students actively engaging with technology to think, create, problem-solve, communicate, or make decisions. In these moments, the student, not the screen, drives the experience. Technology serves as a tool to extend cognitive engagement rather than replace it (Kolb, 2017; Kolb, 2020).

Consistent with pediatric and educational guidance, effective active screen use considers the developmental needs of the child, the quality and purpose of the content, what the experience may be crowding out, and the importance of clear communication and structured expectations (American Academy of Pediatrics, 2022). When thoughtfully designed, active screen use can deepen understanding, promote creativity, and build real-world skills (Kolb, 2020).

In schools, active screen use has instructional value when it is purposeful, time-bound, and clearly aligned to learning goals. Research suggests that interactive and creative uses of technology are associated with improved engagement and academic outcomes when used intentionally (Adelantado-Renau et al., 2019; Kolb, 2020).

## Purposeful Active Screen Use

Active screen use supports learning when it is intentional and clearly connected to instruction. Educators and families can consider whether the activity requires students to think, create, problem-solve, communicate, or make decisions, whether it aligns to the developmental stage of the child, and whether it complements, rather than replaces, other essential learning experiences (AAP, 2026).

Active screen use may support learning when it:

- engages students in thinking, problem-solving, or decision-making
- supports creation, communication, collaboration, or application of learning
- provides opportunities for feedback, revision, and/or productive struggle
- builds digital literacy, organization, and real-world technology skills
- expands access to tools that support participation, expression, or individualized learning needs

When the activity is purposeful, developmentally appropriate, and part of a broader instructional plan, active screen use can deepen understanding, strengthen engagement, and help students build skills that transfer beyond the classroom.

### When Active Screen Use Needs Boundaries

Active screen use becomes a concern when it becomes excessive, unstructured, or disconnected from a clear learning purpose. Even when students are creating, collaborating, researching, or interacting with content, screen-based learning can still reduce focus if it continues for too long, involves too many competing demands, or replaces other important forms of learning. Without boundaries, active screen use can contribute to distraction, mental fatigue, shallow task completion, or cognitive overload, especially when students are navigating multiple tabs, apps, notifications, or directions at once.

Boundaries are also important because active screen use can begin to crowd out experiences that support deeper learning in different ways, including discussion, hands-on practice, reflection, movement, and sustained attention without a device. In these cases, the concern is not that students are using technology, but that the technology may be taking up too much space in the learning experience or is being used in ways that no longer add instructional value.

Clear expectations, defined boundaries, and thoughtful transitions help ensure that active screen use remains purposeful and supportive of learning. When adults model intentional use and provide structured opportunities for students to practice self-regulation, students are more likely to build the judgment and habits needed to use technology responsibly over time (Kolb, 2020; AAP, 2026; APA, 2025).

## Shared Responsibility Across the School Community

Healthy technology habits develop when expectations are clearly explained, consistently enforced, and modeled by adults. Research in pediatric and developmental psychology suggests that children and adolescents are more likely to internalize expectations when they are reinforced through visibility, consistency, and adult modeling (AAP, 2026; APA, 2025). Students themselves often express a desire for alignment between what is expected of them and what they observe from adults. As one student noted, *“What’s expected of us should be modeled by the teachers.”* When expectations are inconsistent or unclear, technology rules can feel arbitrary rather than instructional.

Consistent with the AAP’s emphasis on communication and context (AAP, 2026), this guidance views responsible screen use as a shared responsibility among educators, students, and families. Tech-free instructional moments are important and should be intentionally protected, particularly during periods that require sustained focus, reflection, or interpersonal connection. At the same time, schools must recognize that technology is integrated into learning and daily life, and occasional urgent or necessary uses may occur.

When expectations are applied consistently and transparently, students are more likely to understand the purpose behind them. Over time, this clarity supports the development of self-regulation and responsible decision-making rather than compliance driven solely by enforcement (APA, 2025).

### Motivation, Trust, & Student Accountability

Effective screen time guidance is stronger when students are not only expected to follow expectations, but also included in shaping and reflecting on them. Students frequently express frustration with technology rules that are introduced without explanation or dialogue. Research suggests that when young people understand the purpose behind expectations, they are more likely to internalize them (APA, 2025).

Because students experience technology expectations across classrooms and school settings every day, their perspectives can help adults better understand what is working, what feels inconsistent, and where policies may need adjustment. Including students in conversations about technology norms, whether through advisory groups, classroom discussions, or structured feedback, supports transparency, trust, and shared responsibility.

Ongoing feedback loops help ensure that screen time guidance remains responsive rather than reactive. Listening to students does not mean relinquishing structure; it means strengthening understanding. When schools create meaningful opportunities for

student input, they are better positioned to develop expectations that are clear, developmentally appropriate, and grounded in lived experience.

Over time, this shared approach can help students see screen time guidance not simply as a set of rules to follow, but as a framework designed to support learning, well-being, and responsible technology use.

### Grade-Band Specific Guidance

Effective screen time guidance recognizes that attention, impulse control, and decision-making skills develop over time (American Academy of Pediatrics [AAP], 2026). A one-size-fits-all approach does not reflect how students grow and mature and may either over-restrict younger learners or under-support older ones.

Developmentally appropriate expectations support both academic learning and student well-being by gradually shifting responsibility from adults to students as skills strengthen (AAP, 2026; APA, 2025).

### Screen Use Progression

Grade Band	Primary Driver of Screen Use	Student Skill Focus	Educator Role
Elementary School (K-5)	Adult-guided	Attention, Foundational Skills, Understanding Purpose	Structure, Model, Co-engage
Middle School (6-8)	Shared responsibility	Self-regulation, Habit Formation, Emotional Awareness	Teach, Scaffold, Reinforce
High School (9-12)	Student-managed	Autonomy, Accountability, Real-world Readiness	Set Expectations, Coach, Hold Accountable

This progression reflects a gradual release of responsibility, supporting students as they move from externally structured environments toward greater independence.

## Elementary School (K-5)

Short, intentional, adult-guided use focused on learning goals.

At the elementary level, students are developing foundational skills in attention, language, and self-regulation. Research emphasizes that younger learners benefit from highly structured and adult-mediated technology use (AAP, 2026).

### Guiding Principles

- Screens are tools to support specific instructional goals, not default activities
- Adult modeling and co-engagement are essential
- Screen use should be brief, focused, and clearly connected to learning

### Effective Practices

- Use screens for:
  - Interactive, feedback-rich practice (e.g., responding, predicting, manipulating objects)
  - Creative expression (drawing, storytelling, music)
  - Guided exploration tied to classroom instruction
  - Support accessibility needs (e.g., text-to-speech, visual supports)
- Pair screen use with:
  - Adult co-engagement (discussion, questioning, modeling)
  - Off-screen follow-up activities that apply learning hands-on
- Avoid:
  - Passive viewing without interaction
  - Using screens as rewards or fillers

## Middle School (6-8)

Increased structure with explicit instruction in self-regulation and digital habits

Early adolescence is marked by increasing independence and heightened sensitivity to social feedback. Research suggests that this developmental stage may increase susceptibility to distraction and sleep disruption when screen use is unstructured (CDC, 2023; APA, 2025).

Effective guidance emphasizes structure paired with skill development rather than unrestricted access or purely punitive restriction.

## Guiding Principles

- Structure supports independence; it does not limit it
- Self-regulation with technology must be taught, practiced, and reinforced
- Screens should serve clear learning or organizational purposes
- Social and emotional impacts of screen use should be addressed directly

## Effective Practices

- Use screens to:
  - Support collaboration, problem-solving, and guided inquiry
  - Engage students in interactive learning, simulations, and game-based experiences connected to learning goals
  - Develop organizational habits (calendars, assignments, feedback review)
- Explicitly teach students how to:
  - Manage notifications and use focus tools
  - Recognize digital distraction and refocus attention
  - Understand how social media algorithms and “highlight reels” influence emotions and self-perception
- Pair Screen Use with:
  - Clear time boundaries and defined transitions
  - Opportunities for reflection on attention, mood, and learning
- Avoid:
  - Unstructured or continuous access to personal devices during instructional time
  - Passive viewing without discussion, interaction, or application
  - Assuming students will self-regulate without instruction and modeling

## High School (9-12)

Greater autonomy paired with clear expectations, accountability, and reflection.

High school students are preparing for postsecondary education, careers, and independent life. Research indicates that adolescents benefit from increased autonomy when it is paired with structure and accountability (APA, 2025; AAP, 2026). High levels of unstructured screen use during instructional time remain associated with distraction and academic concerns (Adelantado-Renau et al., 2019; CDC, 2023).

Effective guidance focuses on responsible choice-making rather than constant monitoring.

### Guiding Principles

- Autonomy increases as expectations become clearer
- Students should understand the purpose and consequences of their technology use
- Screens should support learning, organization, and creation, not passive consumption
- Digital habits should align with college, career, and workplace expectations

### Effective Practices

- Use screens to:
  - Create, revise, and publish complex work (writing, design, coding, multimedia)
  - Conduct research that requires evaluating sources and synthesizing information
  - Collaborate with peers using shared digital tools
  - Manage academic responsibilities (calendars, deadlines, feedback review)
- Provide explicit instruction in:
  - Managing attention and digital boundaries during independent work
  - Understanding how multitasking impacts learning and productivity
  - Sleep hygiene and the effects of late-night screen use and blue light
- Pair screen use with:
  - Transparent expectations for when devices are appropriate
  - Clear accountability for off-task or inappropriate use
  - Opportunities for self-assessment and reflection on digital habits
- Avoid:
  - Assuming students will automatically self-regulate without guidance
  - Allowing personal device use to default to entertainment during learning time

- Overly restrictive policies that remove opportunities to practice responsible use

## Technology Beyond Screens

Technology in schools extends beyond traditional screen-based activities. Robotics, makerspaces, assistive technologies, audio tools, and hands-on digital learning experiences all contribute to engagement, creativity, and skill development. Reducing passive or excessive screen time does not mean reducing meaningful technology integration. In many cases, it means shifting how technology is experienced, from consumption to creation.

By broadening the definition of technology, schools can continue to innovate instruction while prioritizing focus and developmental appropriateness.

## Implementation Considerations

Effective screen time guidance is most successful when implemented through clear communication and consistent expectations across settings. Families, staff, and school leaders all play a role in helping students understand what is expected, why it matters, and how those expectations support learning and well-being.

### Communication with Families

Families and communities play an important role in supporting healthy screen habits. Proactive communication reduces confusion and builds shared understanding.

Districts and schools may:

- Clearly communicate the purpose and goals of screen time guidance
- Emphasize skill-building rather than restriction
- Share practical examples of how screens are used during the school day
- Provide resources or conversation starters to support consistent expectations at home

Transparent communication reinforces that screen time guidance is intended to support learning and well-being, not limit innovation.

## Consistency Across Classrooms

While instructional approaches may vary, core expectations for screen use should remain consistent to support student understanding and self-regulation.

Districts and schools may:

- Establish common language for on-screen and off-screen times
- Align routines for transitions, focus periods, and device management
- Allow flexibility within a shared framework rather than individual classroom rules
- Support administrators in reinforcing expectations across settings

Consistency helps students understand what is expected and transfer responsible habits from one classroom to another.

## Closing: Supporting Learning and Lifelong Habits

Technology is continually evolving, as are the ways in which students are engaging with it. This guidance is not intended to provide a fixed set of rules, but rather a shared framework for thoughtful decision making grounded in research, student voice, and professional judgement.

Classroom device use is not about eliminating technology or enforcing uniform limits. It is about helping students learn when, why, and how to use digital tools in ways that support learning, well-being, and personal responsibility. Skills such as attention management, self-regulation, and purposeful use of technology are essential for success both in the classroom and in life beyond the classroom.

Schools play a critical role in shaping these habits. When expectations are clear, consistent, and developmentally appropriate, and when adults model the behaviors they expect, students are more likely to internalize healthy practices rather than comply out of obligation.

This guidance invites schools and districts to continue learning, reflecting, and adapting. Through shared responsibility, ongoing discussion, and intentional implementation, schools can create environments where technology supports learning without overtaking it, and where students are equipped to navigate a digitally rich world with confidence and care.

## References

- Adelantado-Renau, M., Moliner-Urdiales, D., Cavero-Redondo, I., Beltran-Valls, M. R., Martínez-Vizcaíno, V., & Álvarez-Bueno, C. (2019). Association between screen media use and academic performance among children and adolescents: A systematic review and meta-analysis. *JAMA Pediatrics*, *173*(11), 1058–1067. <https://doi.org/10.1001/jamapediatrics.2019.3176>
- American Academy of Pediatrics. (2026). Digital Ecosystems, Children, and Adolescents: Policy Statement. *Pediatrics*, *157*(2), e2025075320. <https://doi.org/10.1542/peds.2025-075320>
- American Academy of Pediatrics. (n.d.). *Effects of screen time on academic performance and mental health*. American Academy of Pediatrics. Retrieved [Month Day, Year], from <https://www.aap.org/en/patient-care/media-and-children/center-of-excellence-on-social-media-and-youth-mental-health/qa-portal/qa-portal-library/qa-portal-library-questions/effects-of-screen-time-on-academic-performance-and-mental-health/>
- American Psychological Association. (2025, June). *Screen time and emotional problems in children: A vicious cycle?* <https://www.apa.org/news/press/releases/2025/06/screen-time-problems-children>
- Centers for Disease Control and Prevention. (2023). *Teen screen time and health indicators (Data Brief No. 513)*. National Center for Health Statistics. <https://www.cdc.gov/nchs/products/databriefs/db513.htm>
- Centers for Disease Control and Prevention. (2023). *Youth Risk Behavior Surveillance System (YRBSS)*. <https://www.cdc.gov/yrbs/index.html>
- Centers for Disease Control and Prevention. (2025). Screen time and youth health. *Preventing Chronic Disease*, *22*, 240537. [https://www.cdc.gov/pcd/issues/2025/24\\_0537.htm](https://www.cdc.gov/pcd/issues/2025/24_0537.htm)
- Kolb, L. (2017). *Learning first, technology second: The educator's guide to designing authentic lessons*. International Society for Technology in Education.

Kolb, L. (2020). *Learning first, technology second in practice: New strategies, research and tools for student success*. International Society for Technology in Education.

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## Resources

### Parent Resources

- [5C's of Media Use Parent 1-Pagers by Age](#)
- [5 Cs of Media Use Resource Hub with Posters, Handouts, and Videos](#)
- [Kids & Screen Time: How to Use the 5 C's of Media Guidance](#)
- [Early Childhood Development and Screen Time Toolkit \(Available in English and Spanish\)](#)
- [Conversation Starters for Families of Tweens and Teens](#)

### School Resources

- [CoSN 2025 Blaschke Report and Toolkit](#)

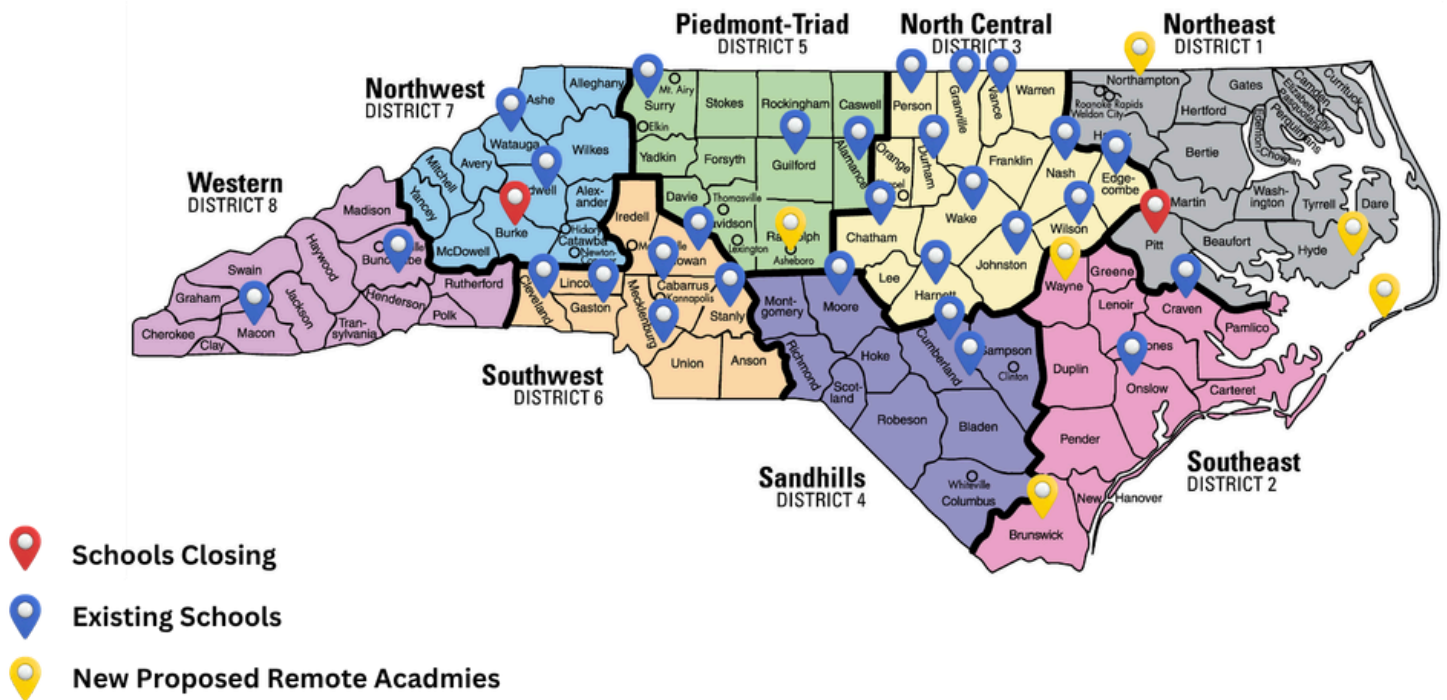
### Educator Resources

- [Screentime Cheat Sheet for Educators](#)



# Remote Academies

# LEA Remote Academies In North Carolina



Session Law 2022-59 authorizes local school administrative units (LEAs) to establish remote academies as public schools providing primarily online instruction, beginning with the 2023–2024 school year, upon approval by the State Board of Education. These academies may deliver instruction through a combination of synchronous and asynchronous methods and may count remote learning toward instructional time requirements.

Enrollment in a remote academy is voluntary and contingent upon documented parental consent. LEAs identify and communicate criteria that indicate a student’s likelihood of success in a remote learning environment. Students with disabilities are included, with appropriate accommodations and services provided in alignment with applicable federal and state laws.

Remote academies operate under the same statutory and regulatory framework as traditional public schools, including teacher licensure, class size, and accountability expectations. LEAs ensure that students have access to instructional resources such as devices, internet connectivity, learning management systems, and technical support.

Each LEA seeking to operate a remote academy submits a plan to the State Board of Education outlining instructional delivery, student monitoring systems, technology infrastructure, professional development, and support services. Approved academies operate on a five-year term, with the opportunity for renewal based on performance and compliance.

The State Board of Education evaluates remote academies annually using measures such as student performance, attendance, retention, and graduation rates, and reports findings to the Joint Legislative Education Oversight Committee.

# Stories from Remote Academies



**Christie Nottingham**  
**WCPSS Crossroads**  
**Flex Principal**



**Dr. Tony Jackson**  
**Superintendent**  
**Chatham County Schools**



**Dr. Melanie Shaver**  
**Superintendent**  
**Hyde County Schools**

# Infrastructure That Makes It Work



## Access

WIFI FOR  
EVERY  
SCHOOL  
BUILDING

## Equipment

SWITCHES  
CABLING  
ACCESS  
POINTS

## Cybersecurity

CONTENT  
FILTERING  
FIREWALL  
KNOWBE4  
CROWDSTRIKE

## Support

CLIENT  
NETWORKING  
ENGINEERING  
SERVICES  
  
PROFESSIONAL  
LEARNING

## IMPACT

All School Connectivity services are delivered to **all** PSUs at no cost, leveraging E-Rate to transform each \$1 of state investment into approximately \$4 in total funding through Federal Communications Commission support.

## FROM CONTRACTS TO CLASSROOMS

Statewide agreements → Lower costs

Centralized services → Faster support

Integrated systems → Stronger outcomes

# Infrastructure That Makes It Work



## RESOURCES



**Access**

PRODUCTS &  
SERVICES



**Use**

TRAINING  
TOOLS  
SUPPORT



**Engagement**

CONTENT  
INSTRUCTION  
SAFETY



**Outcomes**

PERSONALIZED  
RESOURCES

## PRODUCTS

### NCEES

Teacher Evaluation System

### SCHOOLNET

Instructional Improvement  
System

### CANVAS

Statewide Learning  
Management System

### NCSIS

Student Information  
Systems

## FROM CONTRACTS TO CLASSROOMS

Provides subscription access to vetted digital resources and research databases for students and educators in North Carolina public schools, ensuring safe, fair and consistent access to high-quality information.

Statewide agreements → Lower costs  
Centralized services → Faster support  
Integrated systems → Stronger outcomes

# Educator Panel



**Dr. Tony Jackson**  
**Superintendent**  
**Chatham County Schools**



**Robin May**  
**Assistant Superintendent**  
**Wilson County Schools**



**Lindsay Skidmore**  
**Director of 6-8 Curriculum**  
**and Digital Innovation**  
**Duplin County Schools**



**Kimberly Jones**  
**Teacher of the Year**  
**Chapel Hill-Carrboro**  
**City Schools**



**Dr. Melanie Honeycutt**  
**Executive Director**  
**NCTies**



# Strategic Alignment



## Pillar 1: Prepare Each Student for Their Next Phase in Life



### Curriculum, Instruction, and Assessment

The Digital Learning Plan (DLP) focuses on transforming student learning through the strategic use of technology, with the goal of improving outcomes and equipping students with the skills needed to thrive in a digital world—such as innovation, collaboration, communication, and critical thinking. The Curriculum, Instruction, & Assessment section of the plan directly supports Pillar 1’s emphasis on individualized instruction by ensuring educators have access to high-quality, curriculum-aligned digital resources tailored to diverse learning needs. It also emphasizes the importance of educators mastering the NC Digital Learning Competencies to effectively design and deliver personalized and blended learning experiences that enhance student engagement and achievement.

## Pillar 2: Revere Public Educators



### Human Capacity

The Digital Learning Plan (DLP) aligns closely with Pillar 2 through its strong focus on Human Capacity, described as essential for creating classrooms that foster opportunity, innovation, and academic success. The plan emphasizes building the skills, knowledge, and resources educators need to thrive in a digital learning environment.

Key strategies include providing ongoing, high-quality professional learning, ensuring access to specialized support staff—such as Instructional Technology Facilitators and School Library Media Coordinators—and maintaining reliable technical support to minimize disruptions. These efforts collectively enhance educator effectiveness, support professional growth, and improve working conditions, directly reflecting Pillar 2’s goal of honoring, supporting, and empowering educators in their vital role.

## Pillar 3: Enhance Parent/Guardian, and Community Support



### Leadership and Vision

The Digital Learning Plan (DLP) aligns with the goal of engaging and supporting families and communities as stated in Pillar 3. The plan emphasizes creating and communicating a shared digital learning vision with diverse stakeholders, including parents and guardians. It also provides families with resources and training on topics like data privacy and access to library materials. These efforts support Pillar 3 by promoting collaboration, communication, and family involvement in student learning.

## Pillar 4: Ensure Safe, Secure Learning Environments



### Data Privacy and Cybersecurity

The Digital Learning Plan (DLP) plays a key role in advancing Pillar 4: Ensure safe, secure learning environments. While Pillar 4 addresses areas such as physical safety, health and well-being, and school climate, the DL Plan extends this commitment to the digital realm—an essential aspect of modern learning environments.

This category focuses on aligning data privacy and cybersecurity policies with current laws and best practices, establishing continuous improvement processes for risk management, and providing professional learning for all stakeholders. These actions help ensure students learn in a secure digital environment, while staff model strong digital citizenship—contributing to a safe, inclusive, and supportive school climate.

## Pillar 5: Optimize Operational Excellence



### Technology, Infrastructure, and Devices

The Digital Learning Plan (DLP) supports Pillar 5: Optimize Operational Excellence by establishing a framework for digital teaching and learning operations. It aims to enhance efficiency and effectiveness in areas like customer service and communication through a structured yearly action planning process that evaluates resources and adjusts based on data. Key operational objectives include maintaining a technical support staff ratio that allows support for all technology and devices and ensuring repair ticket wait times of 24 hours or less. The plan also emphasizes fully funded sustainability plans for long-term viability. Overall, the DLP promotes optimized operations in North Carolina public schools' digital environments.

## Pillar 6: Lead Transformative Change



### Digital Learning Plan Holistically

The Digital Learning Plan(DLP) aligns with the pillar's focus on leading transformative change by providing a structured, research-informed framework for continuous improvement in digital teaching and learning. Through its Leadership & Vision category, the DLP guides PSUs in developing and executing clear, actionable plans that support innovation and growth.

The DLP's annual action planning process encourages schools and districts to evaluate their digital learning efforts, make data-informed adjustments, and ensure the necessary resources are in place—supporting system-wide improvement. Tools like the Digital Learning Progress Rubrics further strengthen this alignment by helping PSUs assess progress and create targeted plans that drive meaningful change.

By promoting evidence-based practices, strategic planning, and the development of innovative instructional models, the DLP supports Pillar 6's broader goals of reducing low-performing schools and expanding creative approaches to education. In this way, the DLP contributes to leading transformative change by helping schools build future-ready learning environments across North Carolina.

## Pillar 7: Celebrate Why Public Education is the Best Choice



### Leadership and Vision

While the Digital Learning Plan (DLP) does not directly target these goals, it aligns with Pillar 7 through its emphasis on communicating a shared vision for digital teaching and learning. Under the Leadership & Vision category, the DLP encourages PSUs to engage stakeholders and highlight their digital learning efforts.

Moreover, the sharing of innovative projects and programs developed under the DLP can help showcase the best aspects of public education—demonstrating its relevance, adaptability, and ability to prepare students for the future of work. In this way, the DLP supports Pillar 7 by providing real examples of how public education delivers meaningful, future-ready learning experiences.

## Pillar 8: Galvanize Champions to Invest in and Support Public Education



### Leadership and Vision

The Digital Learning Plan (DLP) supports Pillar 8 by promoting stakeholder engagement, transparency, and partnerships that strengthen public education.

The DLP calls for a shared digital learning vision developed with input from diverse stakeholders, encouraging local and community involvement. It also supports collaboration with external partners to enhance professional learning and digital resources, using data to assess impact and guide decisions.

By involving communities in planning, leveraging partnerships to meet student needs, and demonstrating results through data, the DLP helps build informed supporters who can advocate for and invest in North Carolina's public education system.

# Purposeful Screen Use DRAFT

The Purposeful Screen Use Guidance supports the NCDPI Strategic Plan by promoting intentional, research-based use of technology that enhances student learning and well-being. It helps students develop self-regulation, digital responsibility, and attention management skills while guiding educators in designing purposeful, standards-aligned learning experiences. The guidance also strengthens family partnerships through clear communication and shared expectations, creating balanced digital learning environments that support both academic success and healthy technology habits.



# Remote Academies

Remote Academies support the NCDPI Strategic Plan by providing flexible, high-quality online and blended learning options that meet diverse student needs while maintaining the rigor and accountability of traditional public schools. They promote student readiness through personalized, standards-aligned instruction and targeted supports, strengthen educator effectiveness through required licensure and ongoing professional learning, and enhance family engagement through clear communication and access to resources. Additionally, Remote Academies advance innovation and operational excellence by leveraging digital systems, ensuring continuity of learning, and using data-driven accountability measures to improve student outcomes.



# Digital Learning Standards for Students

The North Carolina Digital Learning Standards for Students provide a specific, action-oriented description of the digital skills and competencies that students need to acquire. By focusing on developing students as empowered learners, digital citizens, knowledge constructors, innovative designers, computational thinkers, creative communicators, and global collaborators, these standards offer a concrete way to define and measure how schools are preparing students for their future, supporting key aspects of Pillar 1 related to teaching and learning, building essential non-academic skills, and ensuring students are ready for college and careers.

**1**

Prepare Each Student for Their Next Phase in Life

**2**

Revere Public School Educators

**4**

Ensure Healthy, Safe and Secure Learning Environments

**3**

Enhance Parent, Guardian, and Community Support

**5**

Optimize Operational Excellence

**7**

Celebrate the Excellence in Public Education

**6**

Lead Transformative Change

**8**

Galvanize Champions to Fully Invest in and Support Public Education

# NCSIS: Student Information System

The Digital Learning and School Connectivity (DL&SC) division plays a critical role in the success of the North Carolina Student Information System (NCSIS) by providing statewide leadership, training, and hands-on support to ensure districts and charter schools can fully leverage the system's capabilities. As NCSIS serves as the operational backbone for student data management, scheduling, reporting, and compliance, DL&SC ensures that educators and administrators have the skills, resources, and technical assistance necessary to maintain accuracy, meet state and federal reporting requirements, and use data to inform instructional decisions.

The SIS Professional Learning (PL) team trains Public School Units (PSUs) to ensure student records are accurate, complete, and timely—supporting key transitions such as grade promotion, graduation, and post-secondary planning. Through regional training sessions, user communities of practice, and comprehensive documentation, the team equips PSUs to effectively use SIS features like progress monitoring, academic histories, and scheduling to personalize instruction and promote student growth. They also provide targeted training on managing enrollment, special programs, and transcript accuracy—critical components in preparing students for college and career pathways. This work is further strengthened by developing guidance documents, coordinating with cross-agency partners, and responding to emerging needs across the state. By coupling robust support structures with a focus on continuous improvement, the DL&SC arm of NCSIS strengthens operational efficiency, safeguards data integrity, and empowers PSUs to maximize the system's impact on teaching and learning.



# ConnecteED to Research for Students

NCEdConnect serves as a centralized hub of digital resources designed to enhance and support student learning. It provides students with access to tools that help them develop critical research skills, explore digital books, and connect with historical and natural resource centers across the state. In addition, NCEdConnect offers educators streamlined access to instructional content, formative assessment tools, professional learning resources, and classroom applications that integrate seamlessly with district technology systems. By giving students direct access to high-quality, self-guided learning tools, NCEdConnect aligns with Pillar 1’s goal of empowering students to take ownership of their learning. These resources promote independent inquiry, digital literacy, and access to diverse educational content—key elements in preparing students to succeed in a knowledge-based, digital world. Furthermore, as the successor to Home Base, NCEdConnect consolidates essential educational tools into a single, user-friendly platform that supports teaching and learning anytime, anywhere.

This integration not only reduces the administrative burden on educators but also maximizes the return on state technology investments, ensuring that all North Carolina public school students and educators benefit from a cohesive, equitable, and future-ready digital ecosystem. Core resources within NCEdConnect include: NCEES (Teacher Evaluation System and Professional Development), the Instructional Improvement System (Schoolnet), Learning Management Systems (Canvas and Infinite Campus), and Research Resources (EBSCO and Britannica).

## ConnectED TO RESEARCH



# School Connectivity Initiative

The North Carolina School Connectivity Initiative (SCI), led by the Department of Public Instruction, ensures reliable, equitable internet access in every public school classroom across the state. Through cooperative purchasing, technical support, training, and services like network engineering, content filtering, and firewalls, SCI empowers Public School Units (PSUs) to build and maintain robust digital infrastructure. Working closely with PSUs and external partners, the SCI team optimizes funding, ensures program compliance, and leverages the FCC's E-Rate program to maximize resources. A cornerstone of this effort is the E-Rate Boot Camp, which provides targeted professional learning for Chief Technology Officers (CTOs) and district staff, both new and veteran, on the latest updates to the E-Rate program. This training strengthens technical expertise and equips participants with strategies to maximize every dollar allotted, ensuring state and federal funds are fully utilized. SCI's approach is unique in that we employ just-in-time network upgrades, timed to align with E-Rate cycles, which maximize both state and FCC funding opportunities. The results speak for themselves: according to the 2024 School Connectivity Report, for every \$1 spent in state funds, North Carolina schools received \$4.52 back in FCC funds. This strategic approach fosters collaboration, builds capacity, and ensures that all North Carolina schools have the broadband services essential for modern education.



## School Connectivity

North Carolina Department of Public Instruction

# Digital Leaders Exchange

The Digital Leaders Exchange is a quarterly mini-conference held in four regions across the state, designed specifically for educational technology leaders. Centered on the Digital Learning Plan, which emphasizes leadership and vision; human capacity; curriculum, instruction, and assessment; data privacy and cybersecurity; and technology and infrastructure, these gatherings provide a collaborative space to explore emerging trends, share resources, and address real-time challenges in digital learning and infrastructure.

The program includes CTO Roundtables and showcases PSU best practices to foster collaboration and innovation across districts. By facilitating peer-to-peer connections, sharing proven strategies, and promoting joint problem-solving, the Exchange supports leaders in staying current, building community, and strengthening digital teaching and learning across North Carolina.

NORTH CAROLINA  
**DIGITAL LEADERS  
EXCHANGE**

**1**

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Student for  
Their Next  
Phase in Life

**2**

Revere Public  
School  
Educators

**3**

Enhance Parent,  
Guardian, and  
Community  
Support

**4**

Ensure Healthy,  
Safe and Secure  
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Environments

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Optimize  
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Excellence

**7**

Celebrate the  
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**6**

Lead  
Transformative  
Change

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Galvanize Champions  
to Fully Invest in and  
Support Public  
Education

# NCEdConnect Symposium

The NCEd Connect Symposium is a statewide professional learning event hosted by the North Carolina Department of Public Instruction. It brings together over 1,600 educators, administrators, and education professionals to collaborate, share best practices, and grow in their use of digital teaching and learning.

The symposium features a wide range of sessions focused on state-supported digital resources and innovative instructional strategies that leverage technology. With on-site meals, lodging, and optional evening activities, the event is designed for a seamless and engaging experience.

NCEd Connect supports the goals of the NC Digital Learning Plan by building educator capacity and strengthening digital learning across public schools in North Carolina.

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# NCBOLD

NCBOLD is a statewide, traveling summer conference designed to provide targeted professional learning for teachers, administrators, and data managers. The conference focuses on helping educators effectively use the state's digital resources while exploring innovative pedagogical strategies that leverage technology to enhance teaching and learning. NCBOLD ensures participants leave equipped with practical tools and insights to support modern, technology-rich classrooms.



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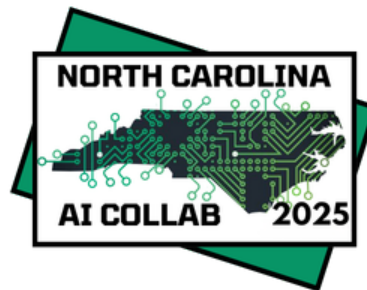
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# Professional Learning Collaboratives

The Office of Digital Learning and School Connect (DL&SC) leads year-long professional learning collaboratives that provide targeted, role-specific development for educators across North Carolina. These include the Coaching Collaborative, which strengthens instructional coaching practices; the School Library Collaborative, which fosters leadership and innovation in school libraries; and the AI Collaborative, which builds educator capacity to integrate generative AI into teaching and learning. Through structured, ongoing support, these collaboratives empower educators to grow as leaders, enhance their practice, and prepare students for success in a rapidly evolving digital world.



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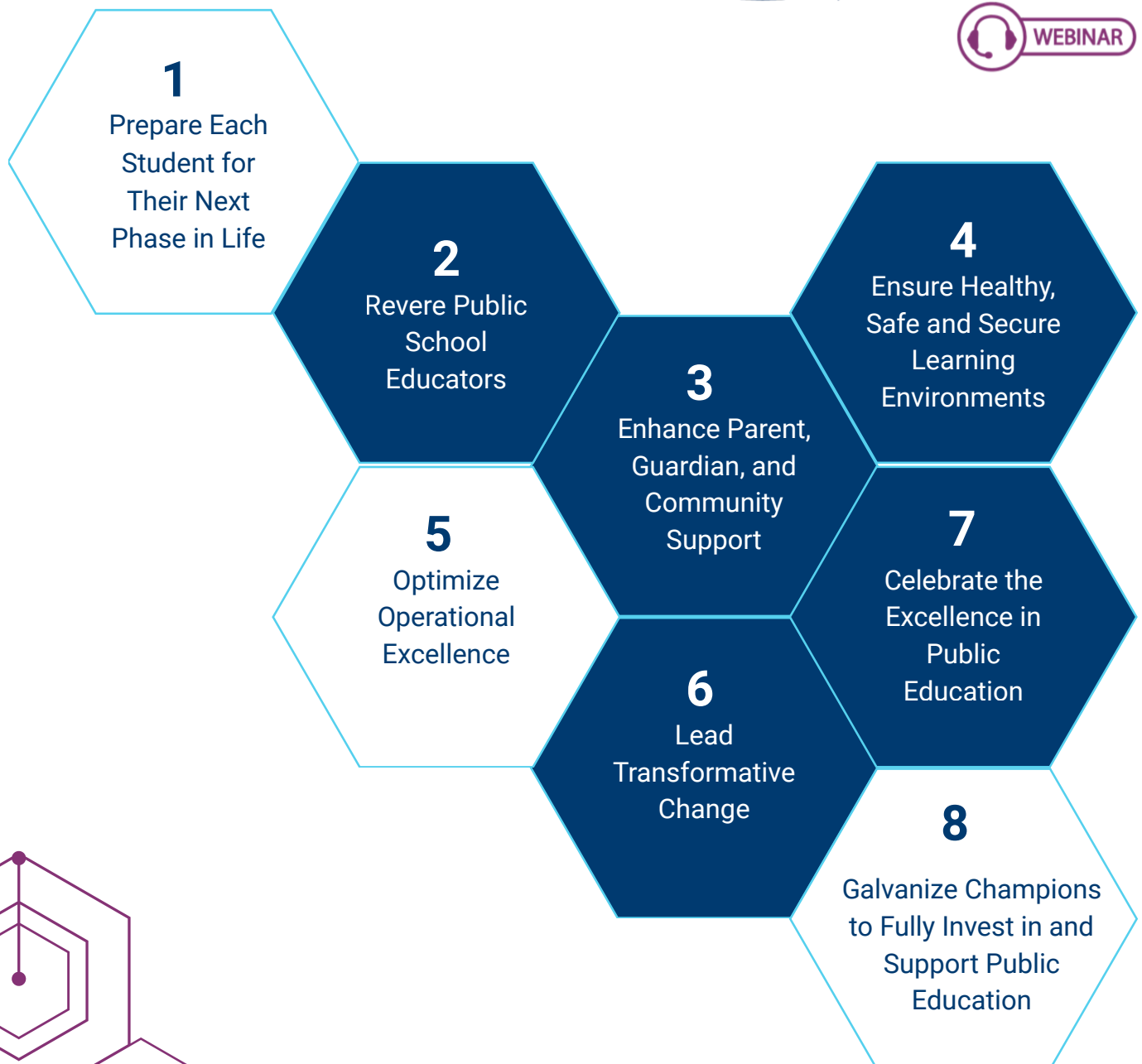
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## Personalized Online Professional Learning

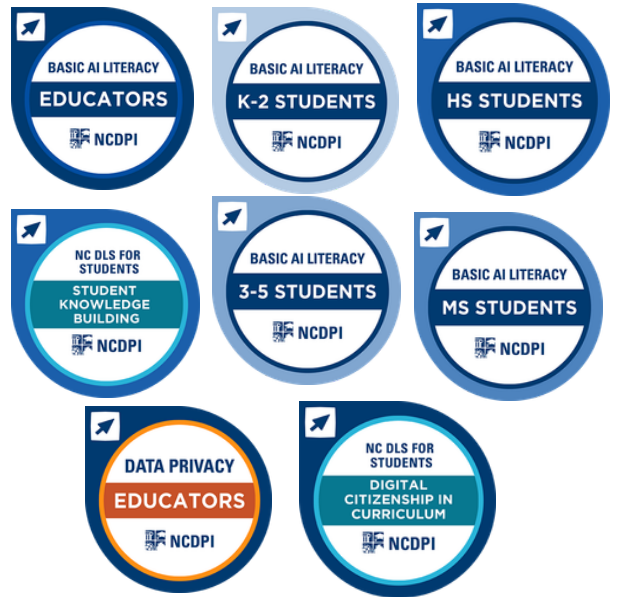
The Office of Digital Learning and School Connectivity (DL&SC) offers high-quality, flexible professional learning through a robust schedule of virtual webinars. These sessions are available in both synchronous and asynchronous formats, providing educators with job-embedded, skills-based development that supports immediate classroom application. Webinars that are offered on a regular basis include:

- NCEES
- EBSCO
- Britannica
- Schoolnet
- Artificial Intelligence
- NC Student Information System
- Digital Accessibility
- School Library Media Coordinators
- Coaching
- Cybersecurity
- Micro-credentialing
- Partnership Webinars from
  - ASCD
  - ISTE
  - CoSN



## Micro-Credentialing

The Office of Digital Teaching and Learning has led the development and implementation of micro-credentials for statewide use, providing educators with high-quality, flexible professional learning opportunities. Created by North Carolina educators, these micro-credentials enable teachers, support staff, and school leaders to demonstrate job-embedded skills, earn digital badges, and track progress through NCEES. By supporting personalized learning and recognizing professional expertise, this initiative strengthens educator retention, fosters leadership development, and reinforces the state's commitment to evidence-based professional growth.



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# ISTE+ASCD Partnership

North Carolina educators have access to a joint ISTE/ASCD membership that provides on-demand courses, webinars, expert publications, and a robust library of teaching and leadership resources. This membership supports the integration of technology and whole-child teaching practices while connecting educators with a statewide and national network for collaboration and professional growth. Through this partnership, the Office of Digital Learning and School Connectivity also offers two ISTE-aligned certifications: the ISTE Certified Educator program, which focuses on meaningful, student-centered technology integration, and the ISTE Instructional Leader Certification, which equips district leaders, administrators, and coaches to drive innovation and improve instruction. These opportunities align with the North Carolina Digital Learning Plan and promote sustainable, high-impact professional learning across the state.

**iste+ascd**



**iste+ascd**

**Instructional  
Leader  
Certification**

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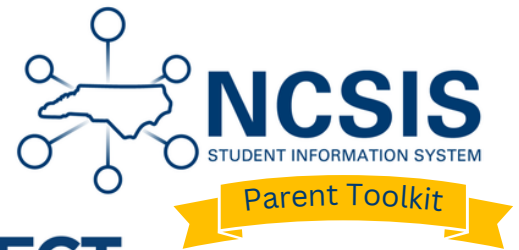
## CoSN Partnership

Through its annual partnership with CoSN, the Office of Digital Teaching and Learning provides North Carolina Public School Units (PSUs) with access to high-impact opportunities that strengthen digital leadership and data privacy practices. Educational technology leaders and technical teams receive CoSN memberships, granting access to professional development, national networks, and resources that support digital learning, cybersecurity, and strategic IT planning. In addition, DL offers the CETL program—a two-day course that prepares digital leaders for certification in edtech leadership and management—and the Trusted Learning Environment (TLE) Seal program, which helps districts implement strong student data privacy practices through free resources, workshops, and participation in a statewide cohort. Together, these programs promote effective leadership and secure, future-ready learning environments across North Carolina.



# Parent Toolkits

The Office of Digital Learning and School Connectivity (D) supports Public School Units by developing customizable parent toolkits designed to strengthen home-school connections. These toolkits provide editable, shareable resources that schools can use to engage families and support student learning at home. Through NCEdConnect, parents and guardians gain access to curriculum-aligned materials, digital books, and educational tools that extend learning beyond the classroom. In addition, the NCSIS Toolkit helps families understand key aspects of their child's educational experience—including course requirements, grades, attendance, and communication—strengthening transparency and collaboration between schools and caregivers.



# Digital Learning and Media Inventory

The Digital Learning and Media Inventory (DLMI) advances family and community engagement by promoting transparency and shared understanding of a school's digital teaching and learning environment. As a publicly accessible data source, DLMI contributes to tools like the Digital Learning Dashboard and the North Carolina School Report Card, allowing families, community members, and partners to see how schools are investing in technology, staffing, and digital resources. This visibility fosters trust, encourages collaborative problem-solving, and empowers stakeholders to advocate for equitable, future-ready learning opportunities in their local schools.



## DIGITAL LEARNING & MEDIA INVENTORY

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# Digital Learning Initiative Grants

The Digital Learning Initiative (DLI) Grants support Pillar 1 by funding innovative digital teaching and learning practices that enhance student engagement and access to high-quality instruction. Since 2017, these grants have fostered hubs of digital leadership and professional growth for educators. The 2025–2026 Digital Learning Impact Grant offers up to \$95,000 annually to help public school units implement strategies like blended learning, personalized instruction, and emerging technologies—empowering students to learn and lead in a digital age.

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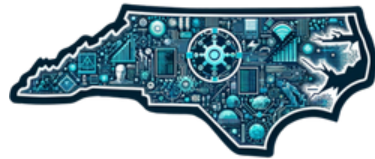
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Galvanize Champions to Fully Invest in and Support Public Education



# Artificial Intelligence Guidelines

North Carolina was the fourth state in the nation to release statewide Artificial Intelligence (AI) Guidelines for K–12 education, positioning the state as a leader in responsible and innovative technology integration. Developed by the Office of Digital Learning and School Connectivity in collaboration with state and national partners, these guidelines provide a foundation for ethical, safe, and effective use of AI in schools. They support educators and leaders in understanding AI's potential, mitigating risks, and integrating tools that enhance teaching and learning. By establishing clear guidance and promoting responsible innovation, North Carolina's AI Guidelines advance Pillar 6 by fostering research-driven practice, scaling innovation, and preparing schools for the future of digital learning.

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# Artificial Intelligence Summits

AI Summits are one day events that provide leaders and educators a space to discuss current and future plans for implementing artificial intelligence in schools. This event highlights innovative guest speakers, North Carolina schools that are utilizing this technology to effectively transform student learning, and student voices.

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# Artificial Intelligence Tools for Literacy Success

The Office of Digital Learning and School Connectivity is collaborating with the Office of Teaching and Learning to develop and deploy AI tools aligned with the North Carolina Standard Course of Study (NCSCOS) and the Digital Learning Standards for Students (DLSS) to help educators efficiently unpack standards, integrate technology and literacy, and design authentic, inquiry-based learning experiences. Using a structured process informed by the NCDPI Office of Teaching and Learning (OT&L), the AI identifies key concepts, student-friendly language, prerequisite knowledge, evidence of mastery, and literacy connections, while recommending high-impact instructional strategies. By incorporating the Literacy Instruction Standards (LIS), and content-specific knowledge sources, these tools ensure instructional planning is cohesive, future-ready, and tightly aligned with North Carolina's vision for empowering students through effective teaching and technology integration.



# AI Solve-A-Thon

The NC AI Solve-a-Thon engages students in project-based learning that cultivates college, career, and life-ready skills. Hosted by the Office of Digital Learning and School Connectivity, this statewide event challenges middle and high school students to design AI-powered solutions to local issues, fostering durable skills such as critical thinking, collaboration, and ethical reasoning. Aligned with the North Carolina Portrait of a Graduate and the Presidential AI Challenge, the Solve-a-Thon reinforces student agency and equips participants to apply AI in human-centered, responsible ways. This initiative reflects North Carolina's commitment to preparing all learners for success in a future shaped by emerging technologies and global innovation.

**NORTH CAROLINA**



**AI SOLVE-A-THON**  
2025-26

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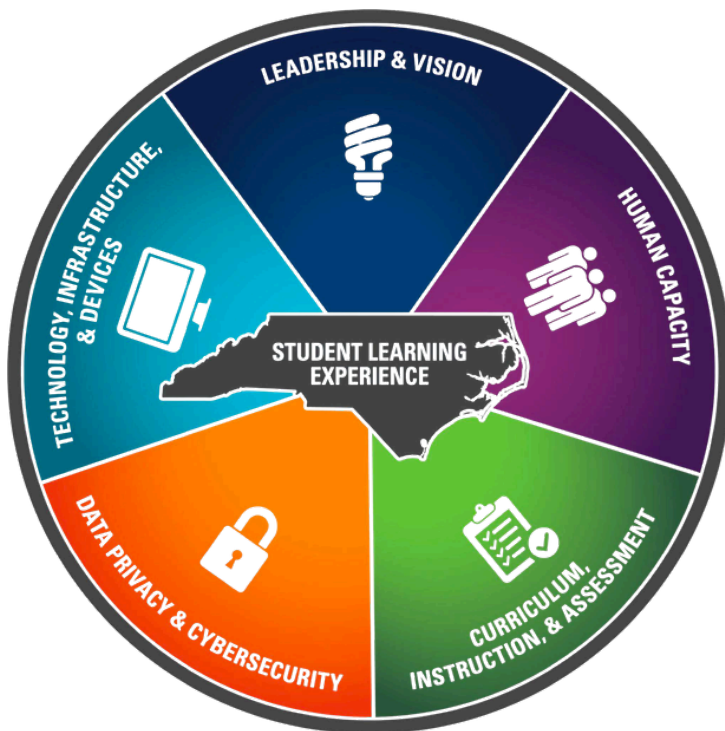
Celebrate the Excellence in Public Education

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Galvanize Champions to Fully Invest in and Support Public Education

# Looking Ahead: A Continued Commitment to Digital Learning

The Office of Digital Learning and School Connectivity remains committed to advancing the mission of North Carolina's public schools through innovative, equitable, and future-ready digital learning strategies. As demonstrated throughout this alignment, each program, partnership, and initiative is purposefully designed to support the goals outlined in the North Carolina Department of Public Instruction's Strategic Plan. This work is made possible through deep collaboration with educators, technology leaders, school and district administrators, and community partners across the state. Together, we will continue to empower educators, engage students, and expand access to high-quality digital teaching and learning experiences that prepare every learner for success in an ever-changing world.



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