



Ohio's AI in Education Coalition: **AI Strategy**

November 20, 2024

Coalition Members

Industry

KeyBank	Kroger	NFIB Ohio
Nationwide Insurance	Ohio Business Roundtable	Ohio Chamber of Commerce
Ohio Council of Retail Merchants	Ohio Farm Bureau	Ohio Innovation and Technology Association
Ohio Manufacturers' Association	OhioX	Owens Corning
Premier Health	Werth Inc.	

Education

Alliance for High Quality Education	Ohio Association of Career and Technical Superintendents	Association of Independent Colleges & Universities of Ohio
Battelle Education	Buckeye Association of School Administrators	Butler County ESC
Chagrin Falls Exempted Village Schools	Cincinnati State Community College	East Central Ohio ESC
Hudson City Schools	Inter-University Council of Ohio	Lakota Local School District
Logan-Hocking Local School District	Ohio 8 Coalition	Ohio Association for Gifted Children
Ohio Association for Career and Technical Education	Ohio Association of Colleges for Teacher Education	Ohio Association of Community Colleges
Ohio Association of Comprehensive and Compact Career-Technical Schools	Ohio Association of Elementary School Administrators	Ohio Association of Secondary School Administrators
Ohio Education Association	Ohio Educational Service Center Association	Ohio Excels
Ohio Federation of Teachers	Ohio Middle Level Association (OMLA)	Ohio School Boards Association
Ohio School Counselors Association	South-Western City School District	The AI Education Project (aiEDU)
The Management Council	Thomas B. Fordham Institute	Tuscarawas Valley Local Schools
University of Findlay	Willoughby-Eastlake City Schools	

Government

Governor's Office of Workforce Transformation	InnovateOhio	Ohio Department of Education and Workforce	Ohio Department of Higher Education
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Executive Summary

Ohio is at the forefront of embracing Artificial Intelligence (AI) as a transformative force in education. In May 2024, under the leadership of Lt. Governor Jon Husted, Ohio's AI in Education Coalition convened to develop a comprehensive strategy to ensure that the state's K-12 education system is prepared for and can help lead the AI revolution. The coalition, composed of representatives from industry, school districts, educators, and other stakeholders, was divided into three workgroups—Industry, Operations, and Instructional—each tasked with addressing specific aspects of AI's impact on education. The recommendations of these workgroups form the core of this strategy.

AI's Impact on the Workforce

AI is reshaping industries at an unprecedented pace, pressing for a rethinking of the skills and knowledge that students will need to succeed. As AI continues to evolve, it will impact a wide range of jobs, including both those that require advanced expertise and those that involve more routine tasks. The coalition identified key themes in how AI is transforming the workplace.

Impact Across Industries and Jobs

AI is accelerating the trend of automation with impacts across all industries and workforces, poised to effect both knowledge workers and higher-income jobs profoundly.

01

Skills Shift – From Routine to Complex Problem-Solving

AI will impact nearly every occupation, automating routine tasks while augmenting those requiring more abstract reasoning and problem-solving.

03

Task Transformation – Not Job Replacement

AI will not simply replace jobs, but will transform what they look like and how they are done. Human collaboration with AI is key.

02

While Companies are Adopting AI at Different Paces, Workforce Impacts are Universal

Businesses are adopting AI at different rates, but the need for talent and workforce adaptation is universal.

04

Essential Knowledge and Skills for an AI-Infused World

As AI becomes more integrated into all aspects of life, Ohio's education system must prepare students not only with foundational knowledge, but also with the skills necessary to thrive in an AI-enhanced world. The coalition emphasizes the importance of:

- **Foundational AI Literacy:** It is crucial that all students understand AI's capabilities and limitations.
- **AI Integration Awareness:** Students need to be aware of how AI is embedded in everyday applications and its implications.
- **Data Literacy:** Proficiency in data management, analysis, and interpretation is essential to a student's success.
- **Critical Thinking and Problem Solving:** These skills are increasingly important as students must determine when and how to use AI and assess its outputs to make informed decisions.
- **Communication and Collaboration:** Effective communication and teamwork will be vital in an AI-infused workplace.
- **Adaptability and Continuous Learning:** Students must be prepared to continuously learn and adapt to new AI technologies.
- **Emotional Intelligence and Integrity:** AI cannot replicate human emotions and ethics. These qualities will be indispensable to students and faculty.

Recommendations

The coalition outlined several recommendations for school districts, higher education institutions, and the State of Ohio:



For School Districts:

- Form an AI task force to shape policy and implementation
- Establish a policy governing the use of artificial intelligence in schools
- Offer AI upskilling and support for district personnel



For Higher Education Institutions:

- Incorporate AI Literacy into Education Preparation Programs



For the State of Ohio:

- Provide AI resources and best practices for districts
- Integrate AI into academic standards and model curriculum
- Review policies to support AI innovation
- Expand purchasing opportunities for AI tools
- Create a statewide stakeholder process to advise on implementation recommendations
- Provide specific AI learning pathways for Ohio students

As Ohio continues to lead in AI and emerging technologies, it is crucial that Ohio's educators are equipped to prepare students for a rapidly evolving workforce. The nature of education is changing with the increasing integration of AI in the classroom. Teachers' roles will evolve, allowing them to focus more on direct instruction, mentoring, and fostering creativity, while AI handles many administrative tasks. Students will benefit from a more personalized learning experience with the support they need. By fostering AI literacy, promoting responsible AI use, and focusing on essential skills, Ohio's education system can ensure that students are ready to lead and innovate in the years to come. This strategy is not only a roadmap for the present, but a vision for Ohio's future in an AI-infused world.

Ohio's AI Progress

In response to the growing impact of AI on Ohio's education and workforce, Lt. Governor Husted has spearheaded multiple initiatives to prepare the state for AI-infused transformation. In 2023, InnovateOhio hosted forums across the state with AI experts who highlighted innovations already taking place and emphasized the need for educator guidance in navigating AI. These forums revealed a strong desire for trustworthy advice for policymakers, teachers, and parents, particularly as generative AI became more accessible to students.



Figure 1. Lt. Governor Husted at the University of Cincinnati during the Cincinnati AI Forum

As a result, InnovateOhio and The AI Education Project (aiEDU) launched [Ohio's AI Toolkit](#) – a guide for developing AI-centric policies and adoption recommendations for K-12 educators. This toolkit provides school districts with AI resources for an increasingly AI-infused world.

Further building on this momentum, Lt. Governor Husted launched the Ohio AI in Education Coalition in May of 2024. This coalition, including industry, school district, and education representatives, was formed to develop strategies to help Ohio schools embrace AI. The coalition was divided into three workgroups:



Industry: The Industry Workgroup informed the coalition about how AI is changing the workplace, and made recommendations on what skills and knowledge future employees will need and how school districts can continue to produce top tier talent in the age of AI.



Operations: The Operations Workgroup focused on optimizing school district functions through AI. Their goal was to identify ways that AI can streamline operations, helping educators devote more time to what matters most, cultivating Ohio's next generation of leaders.



Instructional: The Instructional Workgroup examined how AI is transforming education. They tackled the challenges and opportunities that AI presents, providing recommendations on how school districts and educators can adapt to and embrace these changes.



Figure 2. Lt. Governor Husted, Chancellor Mike Duffey, and Director Steve Dackin at the first Ohio's AI in Education Coalition meeting

Additionally, the Governor's Office of Workforce Transformation (OWT), also led by Lt. Governor Husted, has taken steps to ensure all Ohio employees can receive AI training at no cost. AI credentials are available through Ohio's Individual Microcredential Assistance Program (IMAP) and [TechCred](#). Through [TechCred](#), Ohio employers, including schools, can receive up to \$2,000 in reimbursement for each AI credential earned. Since the beginning of the [TechCred](#) Program, 2,616 AI credentials have been awarded.

Navigating the AI Revolution: Impact of AI on Ohio's Industries

AI is no longer a futuristic concept but a transformative force that is reshaping industries and the workforce at an unprecedented pace. This has massive implications for Ohioans and businesses as they plan for future economic success. However, there are still many unknowns as to what emerging skills need to be learned and what new jobs will be available. A recent survey indicated 32% of leaders see talent scarcity, due to skill gaps or unawareness, as a major barrier in utilizing generative AI, while 36% believe workers may struggle to fully embrace it due to a lack of technological understanding. Despite these concerns, there is optimism: workers are up to the challenge with 94% confident in believing they can develop the needed skills.¹



¹ Accenture, January 2024, "[Work, Workforce, Workers Reinvented in the Age of Generative AI](#)"



In discussing these trends, the coalition identified two major takeaways: (1) AI is fundamentally changing the workplace and (2) it is crucial for industries to adapt. This shift is altering the knowledge and skills required by workers. Employers and workers alike recognize the need to acquire new ways of working to meet the demands of AI growth. What is clear is that the education system must understand how AI will reshape the skills students need and start preparing them for a changing workforce landscape.

AI in the Workplace – Transforming Ohio’s Industries and Jobs

In exploring AI’s impact on the economy, specific industries, and jobs, Ohio’s AI in Education Coalition members identified four key themes that laid the foundation for defining the skills and knowledge needed in an AI-infused world.

Theme 1: Impact Across Industries and Jobs

AI’s impact is widespread, reaching across nearly all industries and job functions.

Unlike earlier automation trends, which predominately affected high-skill and high-education jobs, AI now touches jobs across the skill spectrum. As AI advances, industries once considered untouched from automation are now seeing significant shifts. The figure below illustrates the proportion of working hours AI is expected to influence various industries.

Ohio AI in Action

An Ohio healthcare IT company is using AI to improve both internal efficiency and product development. They currently use “co-pilot” type AI tools to support software development, accelerate tasks like creating presentations, and integrate AI functionality into software solutions for customers.

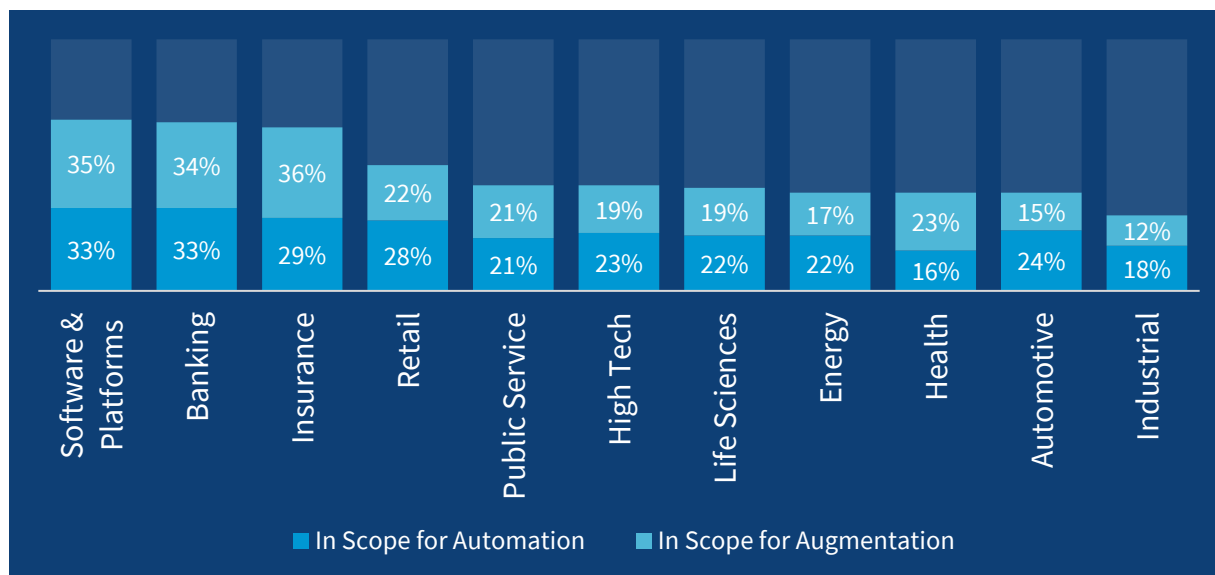


Figure 3. Impact on Working Hours by Generative AI Across Industries²


² Accenture, January 2024, “[Work, Workforce, Workers Reinvented in the Age of Generative AI](#)”

Theme 2: Task Transformation – Not Job Replacement

All jobs can be thought of as a collection of tasks. AI enhances jobs by augmenting job tasks - meaning technology is used to assist workers and make their tasks easier - not entirely replacing the job. Human collaboration with AI is key. Technology alone will not drive generative-AI enabled growth. In fact, people working *alongside* data and technology can lead to productivity gains of up to 11%, while sidelining human workers reduce that gain to just 4%.³ AI will not only perform increasingly complex tasks but will also create new opportunities for innovation that require high degrees of personal interaction and collaboration. **Instead of replacing jobs, AI will augment and replace tasks.** By 2025, it is estimated that 97 million new roles will be created as humans, machines and algorithms increasingly work together.⁴


Below are examples of how AI will reshape existing jobs:

- Accountants spend considerable time on data entry and financial reconciliation. AI can automate and expedite these tasks by identifying anomalies in financial data, allowing accountants to focus time on value-added activities like strategic financial analysis.
- Hospitals can use AI to help triage and diagnose patients. AI can quickly review a patient’s symptoms, medical history, and medical research to help clinicians treat the patient.
- Civil engineers can use generative AI to accelerate the design process, taking all building codes into account for fewer errors and less rework, particularly when it comes to complex mechanical, electrical, and plumbing systems.⁵



AUTOMATION

Replaces human-driven tasks with AI. Technology performs tasks all on its own.



AUGMENTATION

Integrates AI to help workers do tasks more efficiently. The worker is still in charge of the task.

97 Million

New roles created by 2025 as humans, machines and algorithms increasingly work together.

Theme 3: Skills Shift – From Routine to Complex Problem-Solving

AI presents opportunities for individuals to shift from specializing in just one or two areas to developing a broader range of interconnected skills. Tasks with the highest potential for automation tend to be repetitive and routine, while those with the highest potential for augmentation require abstract reasoning and problem-solving skills.⁶ The exact impact of AI

³ Ibid.

⁴ Accenture, 2024, “[Talent Transformation and Skilling](#)”

⁵ McKinsey Global Institute, July 2023, “[Generative AI and the future of work in America](#)”

⁶ World Economic Forum, September 2023, “[Jobs of tomorrow: Large Language Models and Jobs](#)”

on a specific job depends on how many tasks can be automated. Below are examples of tasks that are most likely to be replaced by AI, as gathered by the coalition:

Routine, Transactional, and Repetitive Tasks	Data-Intensive, Analytical, and Predictive Tasks	Information Retrieval and Knowledge Work
<ul style="list-style-type: none"> • Data Entry • Bookkeeping and Accounting • Simple Customer Service • Inventory Management • Scheduling Appointments 	<ul style="list-style-type: none"> • Fraud Detection • Risk Analysis • Transcription • Diagnostic Imaging Analysis • Route Optimization • Warehouse Management 	<ul style="list-style-type: none"> • Research Summarization • Document Management • Writing • Document Creation

Conversely, here are some examples of tasks that are less likely to be replaced by AI:

Complex Human Behavioral Tasks	Human Interaction Tasks	Creative and Strategic Tasks	Physical and Manual Dexterity Tasks
<ul style="list-style-type: none"> • Empathy • Diagnosing • Mentoring • Inspiration • Social Dynamics 	<ul style="list-style-type: none"> • Building and maintaining relationships • Providing personalized solutions that require intuition and empathy 	<ul style="list-style-type: none"> • Designing • Crafting Product • Storytelling • Strategic Planning • Critical Thinking • Decision-making 	<ul style="list-style-type: none"> • Physical Presence • On-site Problem Solving • Quick Decision Making • Providing Personal Care

Theme 4: While Companies are Adopting AI at Different Paces, Workforce Impacts are Universal

While businesses across industries, both large and small, are exploring how AI can improve operations, small businesses face a distinct challenge: the lack of talent or expertise to implement AI solutions effectively. Currently, only 17% of Ohio’s small businesses are using AI, though 48% believe AI will help their businesses in the future.⁷

Ohio AI in Action

Medina Antique Mall, a small Ohio shop of **30 employees** utilizes AI to help write advertising ad script and for targeting relevant audiences to effectively get the word out about their business.

Many small businesses recognize the potential for AI to enhance tasks like document creation and research, but do not have a dedicated team to explore the AI tool use and have uncertainty around data access, transparency, protections and privacy.⁸ In contrast, large businesses have been quick to adopt AI: 41% of S&P 500 companies mentioned AI in their Q1 2024 earnings calls,

⁷ U.S. Chamber of Commerce, September 2023, “[Empowering Small Business: The Impact of Technology on U.S. Small Business \(Second Edition\)](#)”

⁸ NFIB Ohio, “AI Survey”, September 2024

up from 23% just a year ago.⁹ This disparity highlights the need for Ohio’s education system to help our businesses build their internal talent base to fully capture AI’s potential and stay competitive in the marketplace.



Figure 4. Lt. Governor Husted and Director Dackin at the AI Toolkit Launch in February 2024

Essential Knowledge and Skills for an AI-Infused World

The knowledge and skills students need to succeed in the workforce are transforming just as AI reshapes tasks and jobs. New technical competencies are emerging, but the rise of AI also amplifies the value of existing skills, like adaptability and problem-solving. While highly skilled and highly technical jobs, like those tasked with training new algorithms, will be needed, the impact of AI will be felt in most jobs. These roles will increasingly demand workers who can operate and learn alongside AI technology, use it as a tool and adapt to the evolving workplace.

01

Basic AI Literacy

Understanding AI’s capabilities, limitations, and when to use it, including how AI processes data and generates outputs.

02

AI Integration Awareness

Understanding how AI is built into everyday programs and the implications for intellectual property and data privacy.

03

Data Literacy

Understanding processes for data collection, organization, and analysis and clearly communicating data insights to general audiences.

⁹ Goldman Sachs, June 2024, “[Earnings Takeaways: Q1 2024](#)”

Success requires a balance of AI-enabled skills alongside core academic and workplace competencies.

Beyond new knowledge of AI fundamentals and data literacy, students must develop a blend of professional skills to thrive in the evolving job market. **These highly transferable skills, while not new, are becoming increasingly crucial as AI transforms the workforce by automating tasks and enhancing job roles.** The key skills highlighted below will enable students to adapt and excel in diverse work environments, preparing them for success in an AI-infused workplace.

Ohio AI in Action

One industry workgroup member noted that their company and others are putting more emphasis on professional skills like critical thinking and collaboration instead of strictly relying on technology requirements as background prerequisites.



Critical Thinking: Critical thinking involves the ability to analyze, evaluate, interpret, and synthesize information beyond mere memorization and recall. In the context of AI, this involves recognizing when AI applications are appropriate and developing a healthy skepticism to identify AI-generated content. Critical thinking enables individuals to assess the accuracy and relevance of AI outputs, ensuring informed decision-making.



Problem Solving: Problem-solving skills enable students to analyze situations, identify challenges, and devise effective solutions. Problem-solving skills enable students to apply AI to enhance job performance, attack complex issues, and understand when AI should and should not be used within a context.




Communication: Communication skills involve students effectively conveying ideas and information to others in verbal and written forms. This often involves translating complex technical details – including how AI is used – into accessible language for non-experts. These skills are crucial for collaboration and fostering understanding among peers.





Collaboration: AI integrates large amounts of data from different sources, encouraging cross-discipline collaboration and teamwork across areas that may not



traditionally interact. AI introduces not just a new way of collaborating with people, but also with AI systems, where workers must now integrate AI outputs into their collaborative process.

 **Adaptability and Continuous Learning:** As AI technologies rapidly evolve, students must embrace change. This skill encourages a growth mindset, where students actively seek new knowledge, are inherently curious, and adjust to evolving situations.

 **Emotional Intelligence:** Emotional intelligence includes self-awareness, self-management, social awareness, and relationship management. These are essential for navigating AI-infused workplaces. Human abilities will be needed to lead teams, foster collaboration, and address interpersonal challenges that cannot be solved by AI alone.

 **Integrity and Conscientiousness:** Integrity is crucial for understanding the ethical implications of using AI in a responsible and transparent manner, including how data is collected, managed, and used.






As AI reshapes Ohio’s workforce, the need for a combination of technical skills and human-centered abilities will continue to grow. While AI brings new tools and capabilities, skills like critical thinking, problem-solving, and collaboration will still be essential. By building a strong foundation in both AI-related knowledge and core professional skills, students will be better prepared to succeed in the changing workplace.

The Impact of AI in the Classroom

AI stands at the ready to completely reinvent the classroom experience for teachers and students. While AI will change education, it is in no way replacing the critical role of teachers. Instead, AI will enable teachers to spend more time teaching, guiding students, and fostering creativity through personal interaction, which remains essential for student development. Leveraging AI-powered tools can help teachers with grading, attendance tracking, and lesson planning, but the human connection and influence of teachers will continue to be irreplaceable.

For students, the introduction of AI means more personalized learning experiences. Students can leverage AI for tutoring, allowing for programs that adapt to their learning pace and provide customized lessons, learning activities, and feedback. AI systems targeted for student learning can identify gaps in understanding, offer real-time assistance, and reinforce concepts in ways tailored to individual learning styles which would not otherwise be offered in the traditional classroom setting. This ensures the success of students

How AI is Being Integrated into Education

-  **Educational Games**
-  **Learning Platforms**
-  **Grading Systems**
-  **Student Chatbots**
-  **Tutoring Systems**

who might otherwise struggle to receive the support they need and empowers students to take ownership of their learning, resulting in deeper understanding and more confidence in their abilities. Many of these applications are already being used in classrooms across the U.S. and can be expected to be more widely used across Ohio with the right strategies and education programs in place.

While AI stands to provide many learning benefits to students, educators have valid concerns about the implications of increased AI use for students.¹⁰ Academic dishonesty stands as a main point of concern for many educators, with tools like various AI chatbots that can effectively write full essay responses that students can pass off as their own work. Additionally, educators worry that students' use of AI in the classroom can lead to reduced peer interaction and collaboration. With proper education on classroom AI best practices, educators will be better equipped to promote safe and ethical AI use to their students as well as finding the balance between using AI to enhance learning without diminishing opportunities for peer collaboration.

Ohio's AI Strategy Guiding Principles

With input from industry leaders across Ohio, the AI in Education Coalition developed a set of guiding principles that state government, higher education institutions, K-12 school districts, and other educators should follow.

1. **Provide All Students with Responsible AI Experiences:**

While teaching students about AI, educators should define what responsible use of AI means in education and the precautions that students should take when using AI tools. With such new technology, many students are unaware of how to navigate the offerings safely. A poll found that 72% of students want guidance on how to responsibly use AI tools for schoolwork.¹¹

72%

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responsibly use AI
tools for schoolwork.

2. **Reflect on Methods to Teach AI While Maintaining a Balanced Curriculum:** Educators should teach AI skills in ways that integrate with core subjects such as math, writing, science, and social studies. This new AI-focused teaching approach ensures that students see AI as a resource rather than a replacement for their core competencies. It's also important to focus on AI skills that will remain relevant as technology evolves, preparing students to adapt to future advancements beyond tools like ChatGPT.

¹⁰ Forbes June 2024, "[Artificial Intelligence In Education: Teachers' Opinions On AI In The Classroom](#)"

¹¹ Center for Democracy & Technology, September 2023, "[Off Task: EdTech Uses Threaten Student Privacy and Equity in the Age of AI](#)"

When polled about AI technologies, 68% of students think of AI tools like ChatGPT¹¹

With the rise of AI, 61% of workers globally will need retraining by 2027.¹²

3. **Provide AI Learning Opportunities to All Ohio Educators:** School district leaders should offer opportunities for educators to upskill in AI, enabling them to enhance the classroom experience while ensuring data security. Educating classroom leaders

77%
of teachers believe AI could help them grow as professionals.

Only 36% of educators reported being comfortable with AI technology in the classroom.¹⁴

More than 7 in 10 teachers have not received any professional development on AI.¹⁵

provides tactical guidance on how to use AI to enhance the classroom experience for students. Additionally, providing educators with AI upskilling opportunities allows them to take advantage of AI to streamline administrative tasks, allowing more time to focus on students. This can include using AI to design lesson plans, personalize instruction, and provide on-demand tutoring. Teachers are already seeing the value of AI in education, and most (77%) believe that AI could help them grow as professionals.¹²

4. **Inform Parents on How AI Supports Learning:** Parents should be informed about how AI can be positively used in the classroom and how it connects to workforce readiness.

Only a small percentage (16%) of parents surveyed feel as though they have a detailed understanding of AI.¹⁶

Most parents (62%) have heard little or nothing about how AI tools can be applied in education.¹⁷

5. **Connect with Local Employers on AI Workforce Needs:** The knowledge and skills required to succeed in the workforce are always changing, and AI is increasing the pace of change. Local board of education members, superintendents, principals, and educators should connect with regional employers regularly for support and guidance

¹² Walton Family Foundation & Impact Research, March 2023, "[Teachers and Students Embrace ChatGPT for Education](#)"

¹³ EdWeek Research Center, September 2023, "[What AI Training Do Teachers Need Most? Here's What They Say](#)"

¹⁴ EdWeek Research Center, March 2024, "[Teachers Desperately Need AI Training. How Many Are Getting It?](#)"

on the ongoing impact of AI to gain an understanding of what knowledge and skills are critical for workforce success.

Ohio's AI Recommendations

For Ohio School Districts:

Recommendation 1.1 – Form a Comprehensive AI Workgroup to Shape Policy and Implementation

Strategic Importance to Ohio: As AI becomes more embedded in schools and the world, the best approach is to tackle its integration as a team. Local businesses, educators and school stakeholders can work together to unlock AI's potential, using it as a powerful tool to enhance teaching and learning, as well as improve schoolwide operations.

Approach: The AI workgroup should work closely with the business community to stay up to date on AI advancements and the evolving needs of industry.

Recommended Membership:

- Teachers and administrators representing various buildings, grade levels and departments.
- Post-secondary institutions including community colleges, universities, and career and technical centers.
- Other staff members including but not limited to Counselors and technology, media, and curriculum coordinators.
- External representatives from Business Advisory Councils, regional businesses, industry leaders, educational service centers, and information technology centers.
- School board and student representation.

Recommendation 1.2 – Establish a Policy Governing the Use of Artificial Intelligence in Schools

Strategic Importance to Ohio: To ensure that AI tools are used responsibly by students and staff, school districts should establish clear AI-use guidelines. Such a policy is important to safeguard privacy, support academic integrity, and unlock new opportunities for students.

Approach: School districts should create a policy for AI use that provides clear, accessible and actionable guidance for students and staff. Additionally, involving a cross-disciplinary AI workgroup, as outlined in Recommendation 1.1, will help create a well-rounded AI policy. School districts should reference [Ohio's AI Toolkit](#) for more resources to support policy development.

Schools should then communicate the AI policy to students, parents, educators, staff and other community and business stakeholders. School districts are encouraged to periodically review and update their AI policy, to reflect advancements in technology, account for the implementation of AI, and address any new educational, legal or technological issues.

Policy Content Recommendations:

- Clearly defined uses of AI by students and staff
- Standards for maintaining privacy and personally identifiable information
- Ethical use of AI, including guidelines for the ethical design of and operation of AI
- Consideration of teacher-specific uses
- Considerations for evaluation of purchased resources and vendor agreements
- Outlined process for evaluating AI tools from third party vendors
- Consideration of the impact on learning objectives and student learning assessment

Districts may wish to include additional material in their respective policies, informed by input from their local AI workgroup or other resources, including best practices developed by other schools or organizations.

Available Resources: [Ohio's AI Toolkit](#) is a trusted and vetted resource to aid Ohio educators and parents in their mission to prepare students for AI. This toolkit provides guidance on sound, transparent and practical methods for translating AI goals into actionable AI-focused policies, as well as guidance on resources available for implementing policies ensuring safe, effective, and responsible integration of AI in Ohio's schools.

Recommendation 1.3 – School Districts Should Offer AI Professional Development and Support for District Personnel

Strategic Importance to Ohio: AI is transforming education. It is essential for educators to learn how to incorporate AI into their teaching so Ohio can stand as a leader in weaving AI into educational practices. To do this, it is crucial for all educators to have at least a basic understanding of AI, both to enhance their own work and to provide quality AI education to their students. To achieve this, teachers need dedicated, low-stakes time to explore, test, and collaborate on how to effectively use AI in the classroom and their professional practices.

Approach: School districts should assess their capacity to implement AI and develop a comprehensive plan for providing robust and timely professional development opportunities to district personnel. Districts should consider leveraging AI vendors and industry advisors to support development of training programs for their district personnel to ensure coverage of key knowledge areas. Districts should consider partnering with their Educational Service Center for professional development and their Information Technology Centers for support.

Districts should also establish minimum expectations for technical competency and appropriate use for district personnel supporting or utilizing AI.

Additional Considerations:

- School districts should include teachers as well as other education professionals such as librarians and counselors as needed when designing and delivering training.
- School districts should allow educators to explore classroom AI tools, such as tutoring programs, to consider how to best integrate into classroom practices.
- School districts should consider an educator’s entire workload and create appropriate professional learning opportunities, such as incorporating additional professional development days dedicated to AI education.
- School districts should include responsible AI education in addition to teaching broad AI skills.

Available Resources: Districts should consider leveraging the free AI-powered education courses that are available to all educators across the state in addition to Ohio’s [TechCred](#) program which reimburses school districts for the cost of providing tech-focused professional development.



[Ohio’s Educational Service Center Association](#) provides related resources such as professional development courses, summit events, and practical strategies for enhancing professional learning and leveraging AI in education, as well as the [Ohio Learning Community](#) in collaboration with other regional partners.

For Ohio Higher Education Institutions:

Recommendation 2.1 – Colleges and Universities Should Incorporate AI Literacy into Education Preparation Programs

Strategic Importance to Ohio: The ever-evolving nature of AI means school districts must continuously support educator professional development on current AI technologies. Colleges and universities should ensure that education preparation programs across the state incorporate course material that provides at least a foundational understanding of AI and its ability to enhance learning. By providing future educators with AI knowledge and skills, they will be more equipped to step into the classroom.

Approach: Educator preparation programs within Ohio’s institutions of higher education should consider how they can incorporate knowledge and familiarity with AI tools into courses

for all pre-service teachers. This should not just be limited to future computer science or technology teachers. Pre-service should include the ways that teachers across all subjects and grade bands can leverage AI technology to bolster student learning and support their own professional development.

For the State of Ohio:

Recommendation 3.1 – Ohio Department of Education and Workforce (ODEW) Should Provide AI Resources and Best Practices for Districts

Strategic Importance to Ohio: AI has created an opportunity to level the playing field so all Ohio children, regardless of their socioeconomic status, have access to personalized learning support. By offering tools like an AI Library with guidance and support, schools can more easily access and evaluate AI resources. This ensures that even schools with limited financial resources have access to the latest AI tools and innovations in Ohio. Additionally, ODEW should make recommendations to school districts on the types of training and education programs that should be developed/available for student, school administrator, and educator use.

Approach: DEW must determine the most effective form to distribute resources to educators including through social media, websites, conference presentations, and/or other platforms that provide opportunities for Ohio educators to learn from colleagues across the state.

For curation of a well-rounded resource to AI education for school districts, DEW should consider including the following:

- Tools, rubrics, and guidelines to help evaluate AI tools
- Curated resources created by statewide partners and insights from Educational Service Centers and Information Technology Centers, which have been reviewing emerging AI educational platforms and can also support districts
- Best practices from school districts across the state
- Cross reference resource availability and guidance on additional tools from InnovateOhio

Available Resources: [INFOhio](#) provides space for educators to create AI communities of practice and offers digital resources and instructional support on AI teaching and learning. The [Ohio Professional Learning Directory](#) also serves a resource for AI professional development opportunities, among other state priorities.



Recommendation 3.2 – The Ohio Department of Education and Workforce Should Consider How to Integrate AI into Academic Standards and Model Curriculum

Strategic Importance to Ohio: State technology and computer science standards will need to be updated to align with the evolving demands of employers and the growing role of AI in the workforce. As AI becomes increasingly important across all industries, it is important to integrate AI education across all content areas. For example, in chemistry, students could use AI to predict chemical properties and explore reactions, enhancing their hands-on learning experience. Integrating AI into academic standards and curriculum will help ensure that students are not only familiar with AI concepts but are also equipped to apply AI tools and techniques in various fields.

Approach: To craft Ohio’s learning standards in the age of AI, ODEW should outline not only the knowledge and skills students need, but also how AI can be seamlessly integrated across all subjects. ODEW should collaborate with stakeholders, including industry experts to validate that standards content is reflective of industry needs.

Recommendation 3.3 – The Ohio Department of Education and Workforce Should Review Policies to Support AI Innovation in Traditional Frameworks

Strategic Importance to Ohio: DEW should review policies and take necessary action to support AI innovation within traditional frameworks such as credit flexibility, simultaneous credit, and innovative waivers. By fostering a supportive environment for these innovative AI approaches, the state can encourage school districts to adapt creatively and effectively to new technologies. The Ohio AI in Education Coalition advocates for this strategic support, believing that the state should facilitate, rather than hinder, innovation in education.

Approach: Districts may be able to utilize innovation waivers to support the districts and educators looking to enhance student learning. Early adopters may help share success and identify challenges. Many educators are already finding ways to personalize learning for students by using AI to create integrated courses of study that qualify for simultaneous credit.

Spotlight Example

Butler Tech is using AI in practical ways to meet district goals and improve learning experiences. For example, in Butler Tech’s advanced manufacturing labs, students get to work with AI-infused robots, learning programming, data collection, and how to integrate software with physical equipment.

Recommendation 3.4 – The Ohio Department of Education and Workforce and Ohio Department of Administrative Services (DAS) Should Collaborate to Expand Schools' Access to AI and Tech via Ohio's Cooperative Purchasing Program

Strategic Importance to Ohio: AI Technology is rapidly evolving, and school districts must adapt. However, the process of evaluating and procuring hardware and software can be time-consuming and burdensome, slowing innovation and decreasing learning opportunities—especially for smaller districts with limited IT and procurement staff. By vetting AI solutions and pre-negotiating prices, the State of Ohio can streamline this process, saving districts significant time and money while promoting more effective use of technology in education.

Approach: ODEW and DAS can use the free Ohio Cooperative Purchasing Program, currently used by over 500 school districts, to leverage the state's buying power and pre-negotiated contract terms and conditions to help districts procure technology tools and services. This DAS-managed program allows counties, municipalities, townships, school districts, and other local governments to participate in state contracts for both IT and non-IT goods and services.

Additional Information: Before establishing contracts for technology solutions, the DAS Office of Information Technology reviews them, ensuring they are in the best interest of the State of Ohio.

Recommendation 3.5 – The Ohio Department of Education and Workforce Should Provide AI Learning Paths for Students

Strategic Importance to Ohio: Providing more comprehensive AI education to interested students will ensure that Ohio produces talent with the in-depth knowledge and skills needed to build AI and Machine Learning tools. This will ensure Ohio produces the high-tech AI talent needed to stay competitive in national and global markets.

Approach: DEW should work with state, regional, and local employers to determine, across many industries, what AI-specific knowledge and skills will be imperative for their employees' success in the age of AI. Based on these conversations, ODEW should consider the following to develop AI learning pathways:

- Addition of AI credentials to the Industry-Recognized Credential List (IRC)
- Validate proposed AI credential list with local businesses, ensuring credentials and curriculum taught aligns with industry and employer skill needs
- Alignment to Ohio's Academic Content Standards, including Computer Science and Technology – as well as informing any updates to standards and model curriculum in Recommendation 3.2

Recommendation 3.6 – The Ohio Department of Education and Workforce Should Create a Statewide Stakeholder Process to Advise on Implementation Recommendations

Strategic Importance to Ohio: A key factor that has distinguished Ohio’s AI initiatives, including the work of the AI in Education Coalition, is the teamwork across multiple organizations and industries. This partnership-driven model will enable Ohio to remain at the forefront of AI innovation. Continuous technological advances in AI necessitates gathering feedback from industry, educators, school districts, and other stakeholders on a routine basis as the state implements recommendations following this report. Revisiting and adjusting implementation actions ensures that the work being done within the state remains current and relevant.

Approach: During implementation of these recommendations, ODEW should continue to convene the AI in Education Coalition quarterly to discuss implementation status, ongoing partnerships, risk management, etc.

For more information about the strategy and other AI resources, please visit InnovateOhio.gov/AIStrategy



Figure 5. Ohio’s AI in Education Coalition Kick-off Meeting in May of 2024