

A Curricular AI Roadmap

The Disruption Cycle, AI, and Education

**U.S. Government
Executive Order (4/23/25):**

[Advancing Artificial Intelligence
Education for American Youth](#)

**More from the
International Front:**

[Artificial intelligence |
Organization for Economic
Cooperation & Development
\(OECD\)](#)

[United Nations AI Advisory
Body](#)

[How China is Using AI in
Classrooms: Wall Street
Journal](#)

AI's Predicted Impact on the Workplace

[World Economic Forum's January 2025 Future of
Jobs Report](#) reported:

- AI is expected to create 19 million jobs while displacing 9 million over the next five years.
- Among top fastest-growing skills will be AI driven data analysis, networking, cybersecurity, and technological literacy.
- Half of employers are ramping up AI strategies and two-thirds plan to hire AI talent.
- Almost 80% of employers intend to upskill their workers to handle new technologies.

Disruptive Technology Innovation in Education

EMERGENCE

Emotions run high. Early adopters explore potential. Uncertainty & misinformation abound.

*Characterized by
UNCERTAINTY*

New technology becomes a seamless part of life/work. Acceptance that the tool is here to stay.

INTEGRATION

Characterized by STABILITY

EXPLORATION

Exploration of possible integrations. Tool is clumsily integrated. Mistakes are made. Boundaries are pushed.

Characterized by EXPERIMENTATION

Some strong applications are identified. The tool begins to take its place among other tools.

RECALIBRATION

Characterized by GROWTH



Emergence

the initial stage where a new technology appears on the scene



WHAT'S THAT?

The technology is introduced through research, prototypes, or early demonstrations



THAT'S COOL!

It generates interest and curiosity among educators, administrators, and innovators



WHAT CAN WE DO WITH IT?

Early discussions focus on its potential to transform teaching and learning

Exploration

The technology is piloted and experimented within real educational settings



WE'RE TRYING IT!

Educators and institutions begin small-scale trials or pilot projects



DOES IT DO WHAT IT'S SUPPOSED TO?

There's an active search for practical applications, testing its feasibility



IS IT WORKING?

Early adopters gather data and insights about its strengths and limitations

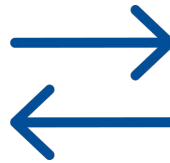
Recalibration

Feedback from initial experiments leads to adjustments



LET'S REVIEW

Experiences from the exploration phase are analyzed



LET'S MAKE SOME CHANGES

The technology, as well as implementation strategies, are fine-tuned to address challenges



LET'S TEST IT OUT!

Best practices are identified, and the approach is adapted to better align with educational goals and infrastructure

Integration

The refined technology is widely adopted and becomes part of standard practice



EVERYONE'S USING IT!

It transitions from a novel innovation to a core element of the educational process



LET'S GET TRAINED

Comprehensive training and support systems are put in place



WE DID IT (NOW WE DO IT AGAIN!)

The technology is seamlessly embedded into curricula, enhancing learning outcomes and operational efficiency

The Tools We're Using



STUDENTS

- Chat for Schools
- Canva
- gotFeedback
- Khanmigo
- Magic School AI

TEACHERS

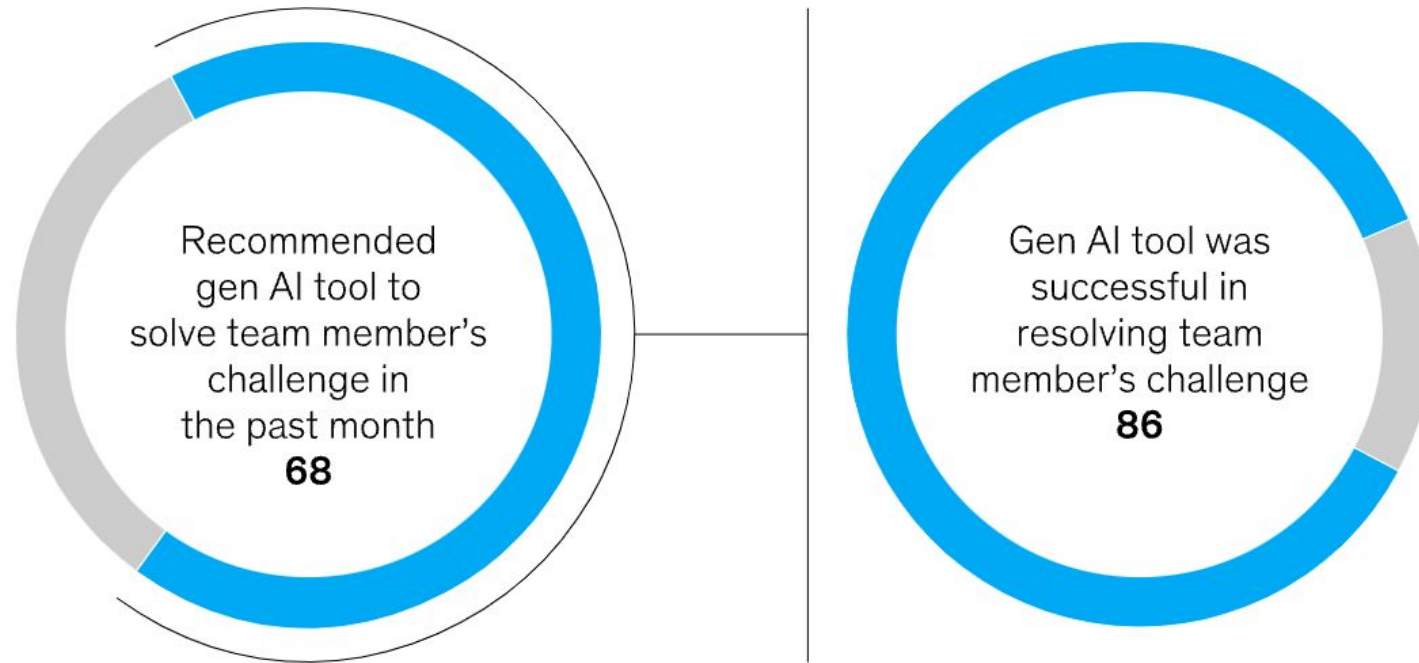
- Brisk Teaching
- SchoolAI
- Class Companion
- Khanmigo
- Magic School AI

STAFF

- Microsoft Copilot
- Google Gemini
- Magic School AI
- ChatGPT

HOW ARE WE USING THE TOOLS?

Use of gen AI tools to resolve a team member's challenge, % of US manager respondents (n = 1,440)



Source: McKinsey US employee survey, Oct–Nov 2024 (n = 3,002)

The McKinsey & Company report is based on a comprehensive survey conducted in October and November 2024. (3,613 employees and 238 executives)

The survey aimed to assess the readiness and perceptions of employees and leaders regarding AI adoption in the workplace, revealing that **employees are more prepared to embrace AI than many business leaders realize.**

“Our research finds the biggest barrier to scaling is not employees—who are ready—but leaders, who are not steering fast enough.”

Superagency: By the numbers

Employees are more ready for the change than their leaders imagine

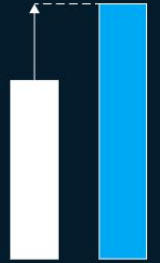


3×

more employees are using gen AI for a third or more of their work than their leaders imagine; more than 70% of all employees believe that within 2 years gen AI will change 30% or more of their work

1.4×

more likely for millennials to report extensive familiarity with gen AI tools than peers in other age groups; they are also 1.2× more likely to expect workflows to change within a year

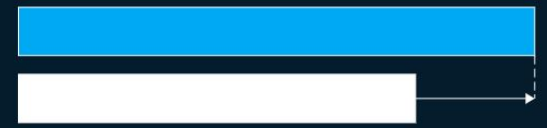


Companies need to move fast—employees trust their leaders to balance speed and safety



47%

of the C-suite say their companies are developing gen AI tools too slowly, even though 69% started investing more than a year ago



1.3×

more likely for employees to trust their own companies to get gen AI deployment right than they are to trust other institutions

Leaders need to recognize their responsibility in driving gen AI transformation



2.4×

more likely for C-suite to cite employee readiness as a barrier to adoption vs their own issues with leadership alignment, despite employees currently using gen AI 3× more than leaders expect



48%

of employees rank training as the most important factor for gen AI adoption; yet nearly half feel they are receiving moderate or less support

McKinsey
& Company

Guide to Sustained Digital Transformation

Six enduring success factors enable tech-business transformations.

Business-led digital road map

Align the senior leadership team on the transformation vision, value, and road map by reimagining business domains to deliver outstanding customer experiences and create competitive distance

Talent

Ensure talent has the right skills and capabilities to execute and innovate

Operating model

Relentlessly focus on value by bringing business, technology, and operations together

Technology

Drive business innovation through effective adoption platforms, solutions, and practices

Data and AI

Provide easy access to high-quality data and leverage insights from AI and other tools to improve customer experiences and business operations

Activation and scaling

Maximize value capture by ensuring the activation and enterprise scaling of digital solutions and by tightly managing the transformation progress and risks

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[*McKinsey & Company Report, January 2025*](#)



How Does This Guide for a **Business** Translate to a Public **School System**?

Define a **clear educational mission** for AI (e.g., improving individualized learning), and ensure it aligns with district policy.

Invest in **professional development** for teachers and administrators, ensuring that staff can understand and use AI tools meaningfully

Develop **cross-functional leadership teams** at the district level to oversee ed-tech integration. (*Leaders, IT, directors/chairs, community members*)

Ensure schools have the **infrastructure** (devices, internet, learning platforms) to support AI tools.

Use **integrated student information systems** (SIS) to make smarter, data-informed decisions that support students more effectively.

Pilot programs with early adopters, collect feedback, then scale. Include teachers, students, and parents in the feedback loop to ensure trust and usability.

“Soon after the first automobiles were on the road, there was the first car crash. But we didn’t ban cars—we adopted speed limits, safety standards, licensing requirements, drunk-driving laws, and other rules of the road.”

— Bill Gates, cofounder of Microsoft

AI Policy (?) and Guidelines

What Does Your District Need?

- **POLICY**

a formal statement of a principle that should be followed by its intended audience

- **STANDARDS**

a formal set of rules and/or requirements that should be followed by its intended audience

- **PROCEDURES**

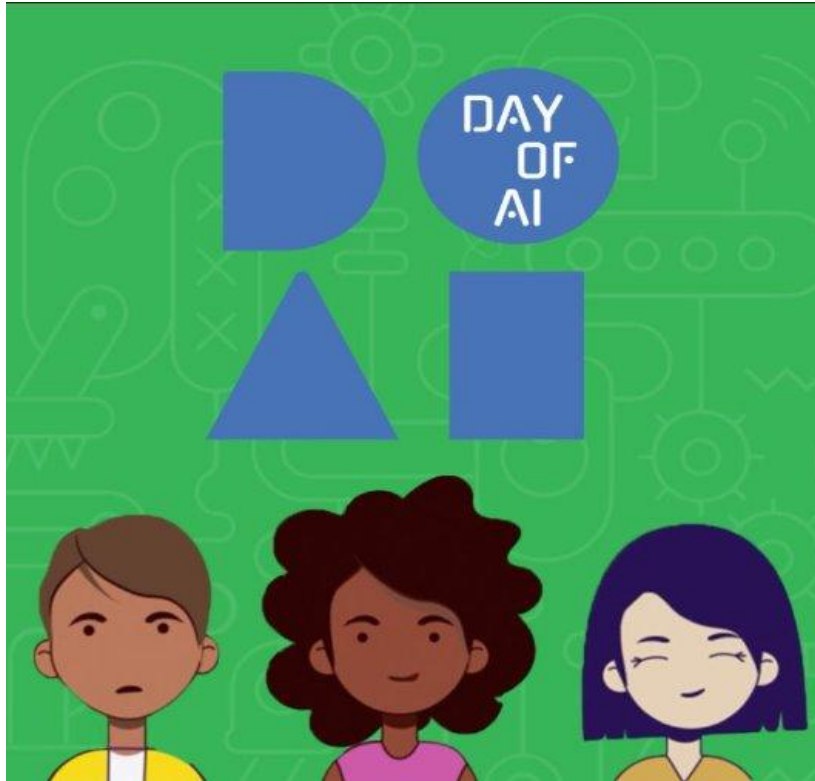
provides detailed mandatory steps (sometimes in the form of a checklist) someone needs to follow to achieve a recurring task or comply with a policy

- **GUIDELINES**

provides general guidance, advice, and support for particular programs, policies, or initiatives

Helpful Resources

MIT's Day of AI Curriculum



Wharton's Ethan Mollick One Useful Thing



Helpful Resources

[AI Summit Resources](#)



How Do We Get There?

Create guiding documents, guiding materials, and resources for students and teachers that can be a foundation for policy and discussions of best practices, one that emphasizes the value of process-focused instruction and activities to the continued development of students' intellectual and literate lives.

Students, teachers, and institutions need to understand the ethical, environmental, and labor implications that large language models (LLMs) introduce as well as issues of copyright, data use, and privacy.

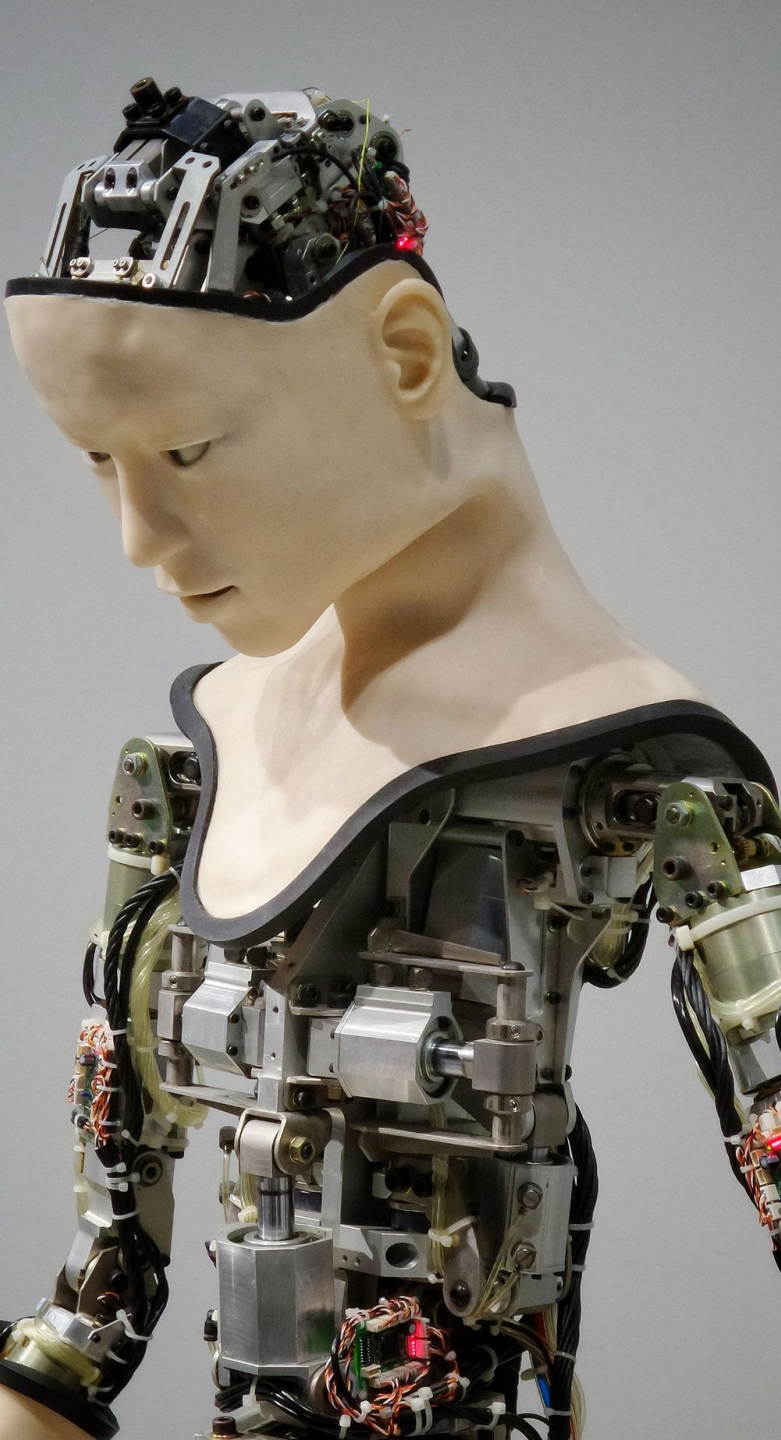
Focus on approaches to academic integrity that support students rather than punish them and that promote a collaborative rather than adversarial relationship between teachers and students.



[MLA-CCCC Joint Task Force on Writing and AI](#)



Helpful Resource



In Process or Next Steps

- **TRANSPARENCY**

Ensure that the use of AI is transparent to all stakeholders. Inform students, parents, and staff about how AI is being used and for what purposes

- **ETHICAL USE**

Employ AI in ways that respect the rights and privacy of all individuals. AI applications should align with the district's values and ethical standards

- **ACCESSIBILITY AND OPPORTUNITY**

Use AI to promote accessibility, opportunity, and inclusion. Ensure that AI tools do not perpetuate biases and are accessible to all students

- **ACCOUNTABILITY**

Maintain human oversight of AI systems

- **SECURITY AND PRIVACY**

Implement robust security measures to prevent unauthorized access and ensure compliance with data protection laws including CIPA, COPPA, FERPA, and Ed law 2-d part 121

- **CONTINUOUS IMPROVEMENT**

Regularly review and update AI policies and practices to keep pace with technological advancements and evolving educational needs; assess stakeholder feedback and consider student outcomes