GenAI Literacy

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Artificial Intelligence

The theory and methods to build machines that think and act like humans.

Expert System AI

Programmers teach AI exactly how to solve specific problems by providing precise instructions and steps.

Machine Learning

The ability for computers to learn from experience or data without human programming.

Deep Learning

Mimics the human brain using artificial neural networks such as **transformers** to allow computers to perform complex tasks.

Generative AI

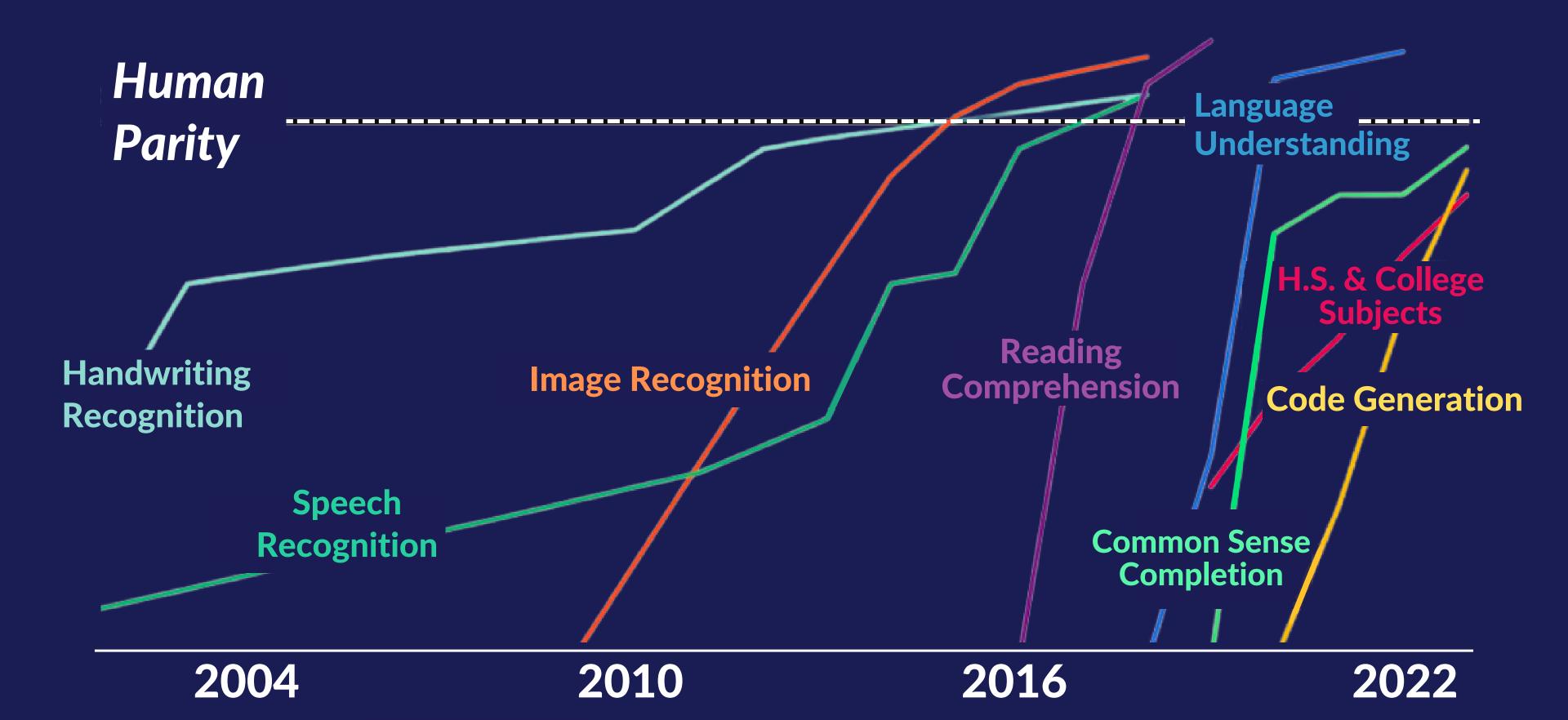**Generates** new text, audio, images, video or code based on content it has been **pre-trained** on.

ChatGPT   Midjourney   Bard

What is Gen AI?

AI for Education

AI's Impact on Jobs

By 2030...

- **170 million** new jobs created by AI
- **92 million** jobs displaced by AI
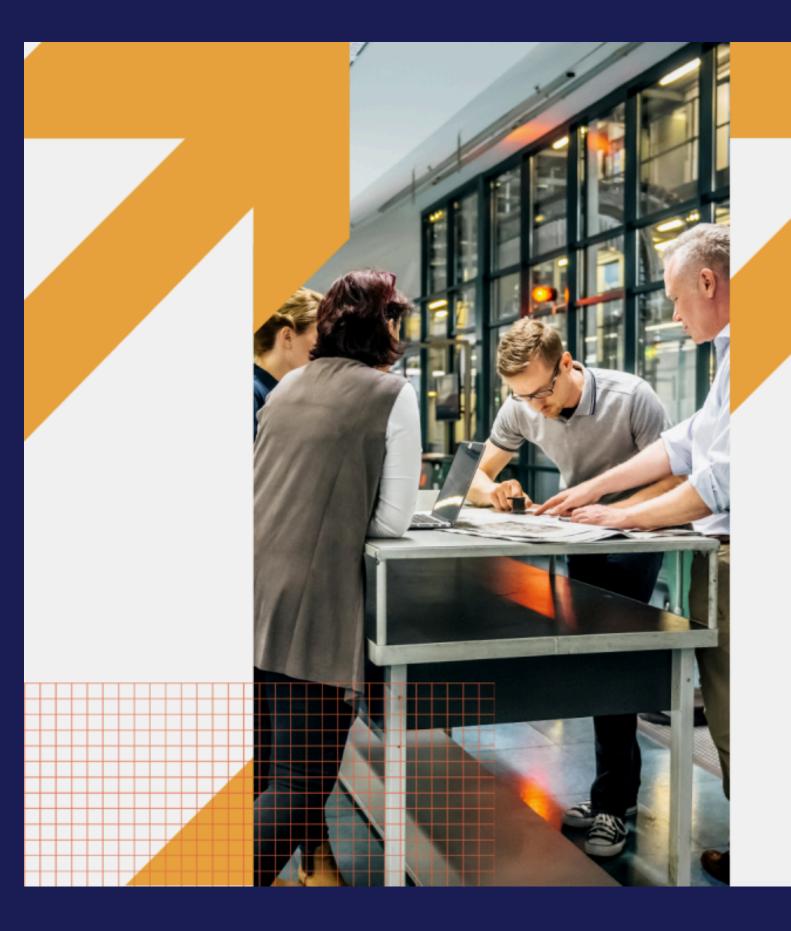- AI will transform **86%** of businesses

Top Skills

- Analytical and critical thinking
- Creativity
- Data and AI
- Resilience, flexibility, & agility

Insights

- Human skills + digital literacy
- Skills prioritized over degrees
- Focus on lifelong learning

SKILLS ON THE RISE — LinkedIn — 2025

#1: AI Literacy

Employers Value AI Skills

62% of employers surveyed believe employees should have basic AI literacy skills.

70% of recent graduates believe basic AI training should be part of education.

55% of colleges/learning programs **discourage** GenAI use

Cengage, 2024

These changes will impact young people the most.

What should school look like for the next generation?

Students' Perceptions

Teens are far more likely to say it's acceptable to use ChatGPT for research than for essays, math problems

% of U.S. teens ages 13 to 17 who think it's ___ for students to use ChatGPT for each of the following

	Not acceptable	Acceptable	Not sure
To research new topics	9	54	15
To solve math problems	28	29	21
To write essays	42	18	18

Note: The 21% of U.S. teens who have not heard about ChatGPT are not shown, nor are those who did not give an answer.
Source: Survey of U.S. teens conducted Sept. 18-Oct. 10, 2024.

PEW RESEARCH CENTER

Pew Research Center, 2025

What is AI Literacy?

AI literacy consists of the knowledge, skills, and mindsets that enable individuals to use AI safely, ethically, and effectively.

SEE Framework

S SAFELY

- Protect data privacy
- Evaluate the risks of AI tools
- Maintain a healthy balance of AI/human interactions

E ETHICALLY

- Maintain academic integrity
- Awareness of AI's other ethical issues
- Adopt a "Do No Harm" mindset

E EFFECTIVELY

- Center human originality
- Use best-fit tools
- Prompting strategies
- Evaluate and refine outputs

AI in schools isn't just about cheating...

AI for Education

Academic Integrity

Artificial Intimacy

Enhanced Creativity

Cognitive Offload

On-demand feedback

Deepfakes   Bias

Misinformation

Personalized Learning

Productivity Gains

What GenAI can do today

- On-demand feedback
- Instructional Design
- Brainstorming
- Real-time Translation
- Accessibility with voice and computer vision

Limitations

Identifying Age Appropriate Use

Thoughtful evaluation is needed to determine when and how to introduce AI tools at different developmental stages.

Biased Training Data

Because GenAI models are trained on data from the internet, they can reflect the bias from these sources.
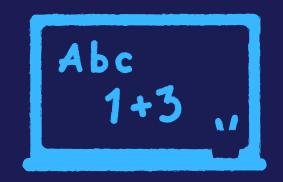
Prone to Inaccuracies

GenAI models are susceptible to partially or entirely making up information to fill training gaps.

Notable Studies

GenAI Can Harm Learning (2024)

*Using ChatGPT for math help without guidance led to student shortcuts and poorer performance, **but the gap was eliminated when the bot acted as a tutor.***

Your Brain on ChatGPT (2025)

*Students who used ChatGPT to write an essay showed lower learning gains and ownership, **but students who outlined first and then use bot erased these losses.***

From Chalkboards to Chatbots (2025)

Using GPT-4 as a tutor with teacher guidance in Nigeria had more than twice the effect of traditional methods over a six-week period.
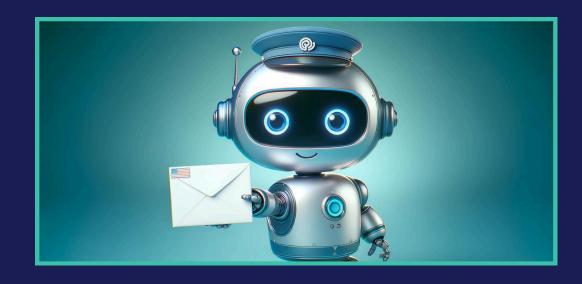
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