

The Challenges of AI

Benefits and concerns, with the evidence **SEPTEMBER 2026**

Artificial intelligence brings real benefits and real concerns. This guide sets them side by side in nine areas. Every point is tied to a numbered source that opens with one click.

● Benefits and responses ● Concerns ● Bottom line

1 Work and opportunity

BENEFITS AND RESPONSES

- In a study of 5,172 customer-support agents, an AI assistant raised issues resolved per hour by 15%. Newer and lower-skilled workers gained the most. [1]
- A Federal Reserve study found no evidence that firms or industries adopting more AI are posting fewer jobs. [2]
- Stanford research on payroll records finds no widespread, economy-wide job displacement so far. [3]

CONCERNS

- Employment of workers aged 22 to 25 in AI-exposed occupations now stands 19% below where it would be had it kept pace with less-exposed peers, mainly through reduced hiring. The authors call this an early indicator, not proof that AI caused the gap. [3]
- In the support-agent study, the most experienced workers saw only small gains in speed and small declines in quality. [1]

BOTTOM LINE AI is making many workers more productive. Entry-level hiring is the early warning sign to watch.

2 Trust, truth and privacy

BENEFITS AND RESPONSES

- Clear rules help reduce risk. UT Austin allows published information in any AI tool, and requires that confidential information be used only in university-managed tools covered by contracts that explicitly protect the data. [4]
- Practical safeguards exist. NIST recommends reviewing and verifying the sources and citations in AI outputs, both before a tool is deployed and while it is in use. [5]

CONCERNS

- NIST lists confidently stated false information, data privacy, harmful bias and information security among the risks of generative AI. [5]
- UT Austin warns that free or personal AI tools can expose personal, confidential and proprietary data, and does not approve them for that information. [4]

BOTTOM LINE AI answers can sound right and be wrong. They need a human check, and sensitive data belongs only in protected tools.

3 Bias and fairness

BENEFITS AND RESPONSES

- Some systems perform more accurately and equitably than others. In NIST's 2019 face recognition tests, accuracy varied widely across developers, and the most equitable algorithms also ranked among the most accurate. [6]
- Civil rights law already applies to automated hiring. The EEOC secured a \$365,000 settlement for applicants who were rejected by a company's hiring software. [7]

CONCERNS

- In those 2019 tests, NIST found demographic differences in most face recognition algorithms. In one-to-one matching, false positives were often 10 to 100 times higher for Asian and African American faces than for white faces, depending on the algorithm. [6]
- One company programmed its application software to automatically reject women aged 55 or older and men aged 60 or older. More than 200 qualified applicants were turned away. [7]

BOTTOM LINE AI can treat people unequally when it is built or used carelessly. Testing exposes the problem, and the law already offers a remedy.

4 Deepfakes and scams

BENEFITS AND RESPONSES

- The same technology helps catch fraud. Machine-learning AI helped the U.S. Treasury recover \$1 billion in check fraud in fiscal year 2024, part of more than \$4 billion prevented or recovered. [8]
- Regulators are responding. In February 2024 the FCC ruled that AI-generated voices count as artificial voices under federal robocall law, which generally requires the consent of the person called. The ruling gives state attorneys general new tools against voice-cloning scams. [9]

CONCERNS

- The FBI warns that criminals use generative AI to commit fraud on a larger scale and to make their schemes more believable, from fake social media profiles to fraudulent websites. [10]
- AI also corrects the spelling and grammar errors that once served as warning signs of fraud. [10]
- The FCC reports AI-generated voices being used to extort family members, imitate celebrities and misinform voters. [9]

BOTTOM LINE AI makes deception cheaper and more convincing. Defenses and laws are catching up, but public awareness remains the first protection.

5 Learning and education

BENEFITS AND RESPONSES

- In a randomized trial with 194 Harvard University physics students, a carefully designed AI tutor produced significantly more learning in less time than an active-learning class. [11]
- In a field experiment with nearly 1,000 high school math students, an AI tutor built with learning safeguards improved results on assisted practice by 127%. On a later exam without AI, those students did about the same as classmates who never had the tool, not better. [12]

CONCERNS

- In the high school math experiment, students given a standard chatbot did 17% worse than classmates who never had it, once the tool was taken away. [12]
- New York City Public Schools placed a moratorium on student-facing generative AI from 2-K through grade 8 for 2026-27, with limited use in high schools. [13]

BOTTOM LINE Design and use influence the outcome. AI built to teach can help students learn; AI used as a shortcut can set them back.

6 Health care

BENEFITS AND RESPONSES

- In a randomized trial of more than 105,000 women in Sweden, AI-supported mammography screening detected 29% more cancers without increasing false positives, and cut radiologists' screen-reading workload by 44%. [14]
- The World Health Organization sees uses across health care, from diagnosis and clinical care to administrative tasks, medical education, and scientific research. [15]

CONCERNS

- WHO warns that generative AI can produce false, inaccurate, biased or incomplete statements, which could harm people who rely on them for health decisions. [15]
- WHO issued more than 40 recommendations for governments, companies and providers, stating that the benefits come only if the risks are identified and fully accounted for. [15]

BOTTOM LINE AI is already helping doctors detect more cancers during screening. In medicine an error causes real harm, so human oversight remains essential.

7 Creators and ownership

BENEFITS AND RESPONSES

- The U.S. Copyright Office confirms that work made with AI assistance can still be copyrighted when a human determines the expressive elements. [16]
- Authors have won compensation. On July 20, 2026, a federal court gave final approval to a \$1.5 billion settlement in Bartz v. Anthropic. [17]

CONCERNS

- Entering prompts alone is not enough. Material whose expressive elements are determined by a machine is not protected. [16]
- That settlement arose from the unauthorized use of authors' books in AI training and development. [17]

BOTTOM LINE Human creativity remains protected and creators can be compensated, but how AI companies obtain creative work is still an active question.

8 Environment and energy

BENEFITS AND RESPONSES

- Europe's weather centre put an AI forecasting model into daily operation in 2025. It outperforms physics-based models on many measures by up to 20% and uses about 1,000 times less energy per forecast. [18]
- The International Energy Agency reports that energy companies already use AI to improve electricity generation, grid operations and energy use. [19]

CONCERNS

- U.S. data centers used about 4.4% of the nation's electricity in 2023 and are expected to use 6.7% to 12% by 2028, with AI servers a major cause of the growth. [20]
- Worldwide, data-centre electricity use is projected to more than double to about 945 terawatt-hours by 2030, slightly more than Japan uses today. [19]
- GAO finds that generative AI uses significant energy and water, and that companies generally do not report the details. [21]

BOTTOM LINE AI can make forecasting and energy systems more efficient, while the data centers behind it place growing and poorly reported demands on power and water.

9 Governance and public power

BENEFITS AND RESPONSES

- A shared playbook exists. NIST's AI Risk Management Framework gives any organization four functions to work through: Govern, Map, Measure and Manage. [22]
- Institutions are already writing their own rules, from UT Austin's data policy to New York City's classroom policy. [4] [13]

CONCERNS

- Adoption is outrunning the rules. Generative AI uses at 11 federal agencies rose about ninefold in one year, from 32 to 282, and agencies report difficulty keeping policies current. [23]
- The NIST framework is voluntary. The framework itself does not impose legal requirements. [22]

BOTTOM LINE The tools for responsible governance exist. The open question is whether organizations adopt them as quickly as they adopt AI.

THE TAKEAWAY

In all nine areas the evidence points the same way. The benefits are real, the concerns are real, and the result depends on how AI is used. That is why clear guidelines for its use matter.

Sources

Click any title to open the publication. Every link goes directly to the publisher's own page. Links checked September 2026. Findings apply to the settings studied; bottom lines are editorial summaries.

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