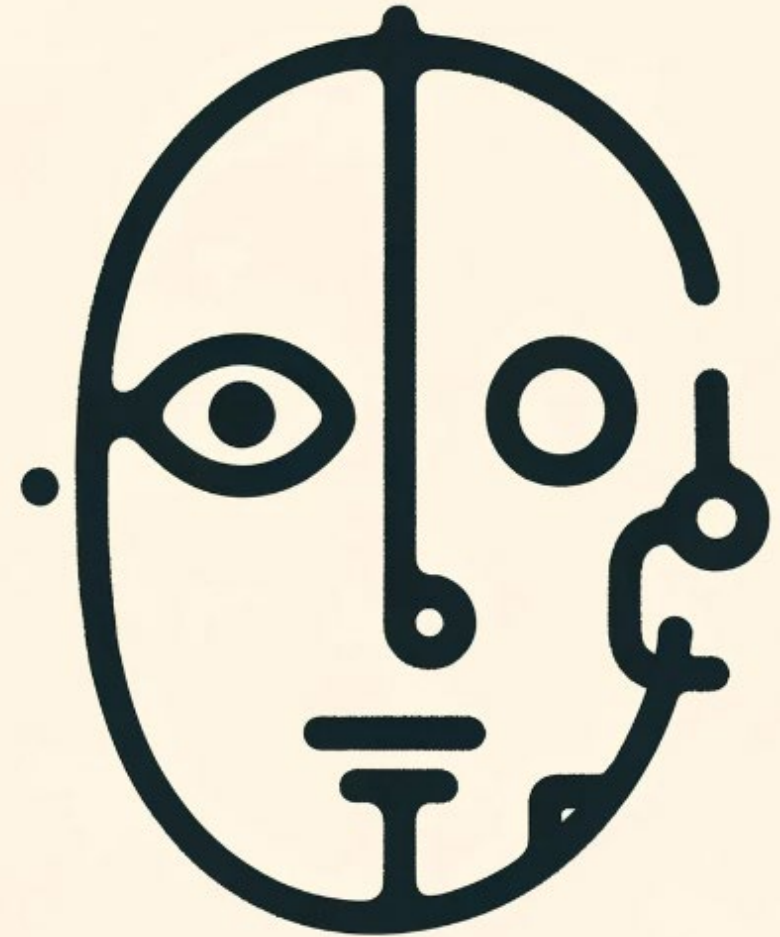


AI Impact on economy and public life

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<https://csus.edu/ai>



National Institute on AI in Society

The Four big questions

1. Will AI kill us all?
2. Will AI destroy jobs?
3. Will AI undermine democracy?
4. Will AI damage education?





#1. Is AI is going to kill us?

- While it is theoretically possible, there has been no instances of willful defiance
- The source of evil is human nature
- None of the current generation of AI can develop its own agency
- Measures of physical control; gap between cyber space and physical space
- All major players are committed to developing ethical AI
- Not developing AI is riskier than developing AI

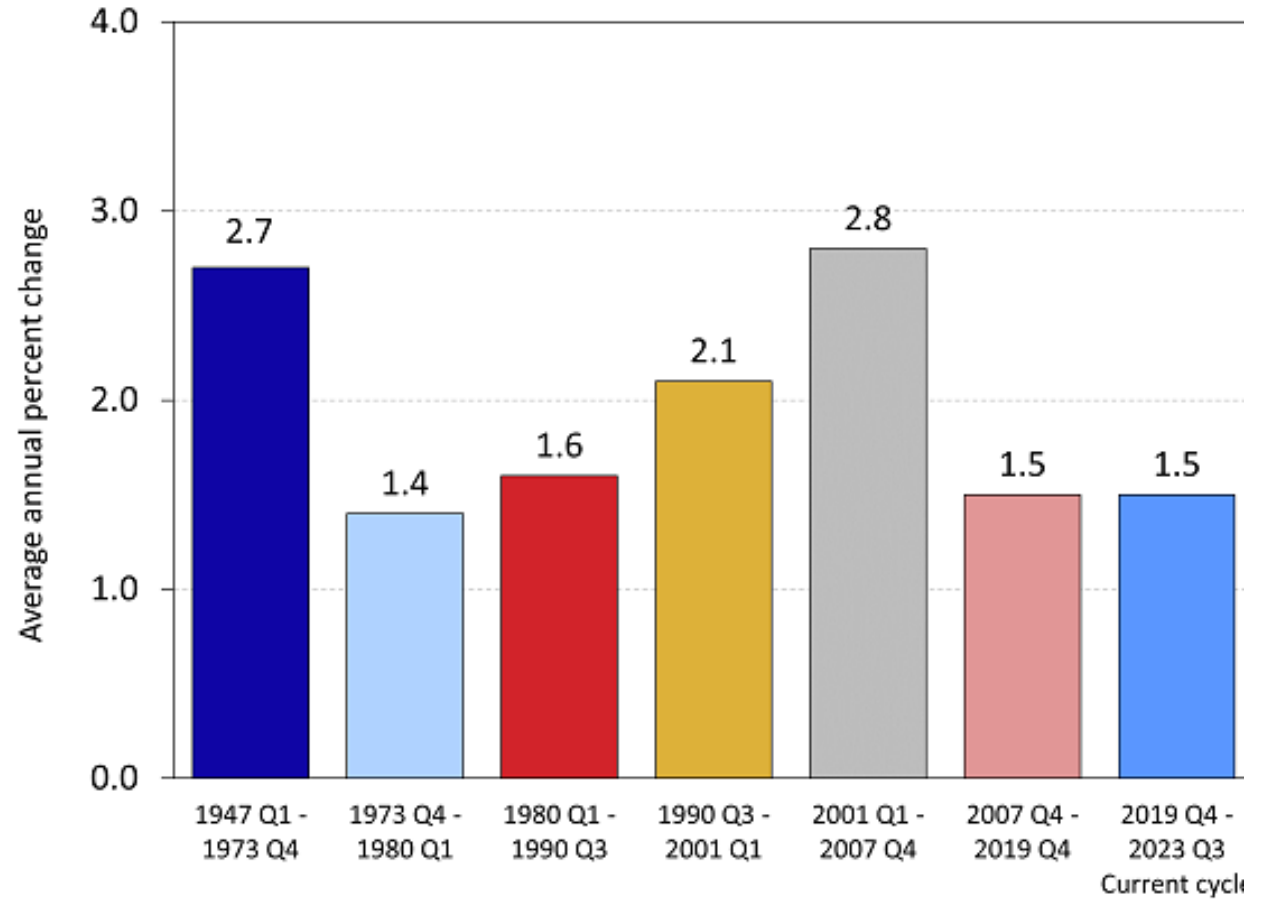
#2 AI will destroy all jobs?

- [IMF 2024 report](#) claims that up to 60% of jobs in the US are exposed to AI, half of them negatively
 - This is only an estimate. Future in general is hard to predict
- [OECD report](#):
 - 57% of employers in finance and 63% in manufacturing responded positively about the impact of AI on worker productivity in their company.
 - In companies that had adopted AI, 20% of workers in finance and 15% of workers in manufacturing said that they knew of someone in the company who **had lost their job as a result of AI**. 29% and 24% said that they knew of someone who had changed their job as a result of AI
 - 19% of workers in finance and 14% in manufacturing said that they were very or extremely worried about job loss in the next ten years, while 46% and 50% were not worried at all
- [Goldman Sachs Research](#)
 - Estimates a baseline case in which the widespread adoption of AI could contribute 1.5% to annual productivity growth over a ten-year period, lifting global GDP by nearly \$7 trillion.



Productivity gains,
historic trend

Productivity change in the nonfarm business sector, 1947 Q1 -



Source: U.S. Bureau of Labor Statistics

Last upd

Most affected occupations

Bureau of Labor Statistics (BLS) as of May 2022

Retail salespersons
- 4,434,400

Cashiers -
3,439,600

Customer service
representatives -
3,069,700

Bookkeeping,
accounting, and
auditing clerks -
1,464,700

Security guards and
gaming surveillance
officers - 1,074,700

Receptionists and
information clerks -
1,004,300

Delivery and truck
drivers - 972,300

Factory and
assembly line
workers - 687,700

Data entry clerks
and typists -
644,700

Postal service clerks
and mail sorters -
487,400

Legal assistants and
paralegals -
443,300

Bank tellers and
credit authorizers -
417,900

Tax preparers -
135,400

Insurance
underwriters -
124,100

Library technicians
and assistants -
94,700

Proofreaders and
copy markers -
88,900

Travel agents -
76,300

Couriers and
messengers -
67,800

Telemarketers -
46,700



New jobs will be created

- Expanded demand for AI-related occupations
- New tasks and activities enabled by AI
- Creation of new sectors and industries
- Need for human oversight, judgement, and ethics
- Demand for professionals to assist AI - human interaction
- Entrepreneurial opportunities in AI-related products and services
- Indirect job creation through AI-driven efficiency and cost savings

What should you do?

Three levels of Ai implementation

1. Out-of-the-Box Solutions

- Requires minimal customization and technical expertise
- Go directly to ChatGPT, Claude, Gemini chatbots, MS Copilot, Groq
- Examples: all writing, editing, data analysis, research,

2. Small-Scale Tool Solution

- Outsource or develop your own tailored AI applications for specific tasks
- Requires some in-house AI expertise or collaboration with AI service providers
- Examples: Custom chat bots in customer service, advising, manuals.

3. Enterprise-Wide AI Integration

- Implement comprehensive AI solutions across the organization
- Requires significant investment in AI infrastructure, talent, and governance
- Examples: AI-powered supply chain optimization, fraud detection, customer service automation

Key Considerations:

- Understand why, and what problems you are solving
- AI is the greatest productivity tool. Ignore it at your peril.
- Ensure data quality, security, and privacy
- Help your employees to learn, do not lay off anyone
- Collaborate with AI experts and stakeholders for successful implementation





#3 Will AI undermine our democracy?

- US crisis of legitimacy is not caused by AI technology
 - Social media platforms have contributed to the spread of misinformation and polarization
 - AI algorithms can amplify echo chambers
- However, AI itself is not inherently a threat to democracy
 - The misuse of AI in social media by malicious actors is the primary concern



The Threat of Deep Fakes

- Deep fakes are AI-generated media that can convincingly mimic real people
 - Can be used to spread misinformation and manipulate public opinion
- Humans evolved to trust their own eyes and ears more than words
 - Deep fakes exploit this cognitive bias, making them particularly dangerous
- As AI advances, deep fakes will become harder to detect and more prevalent
 - Poses a significant challenge to informed decision-making and democratic processes

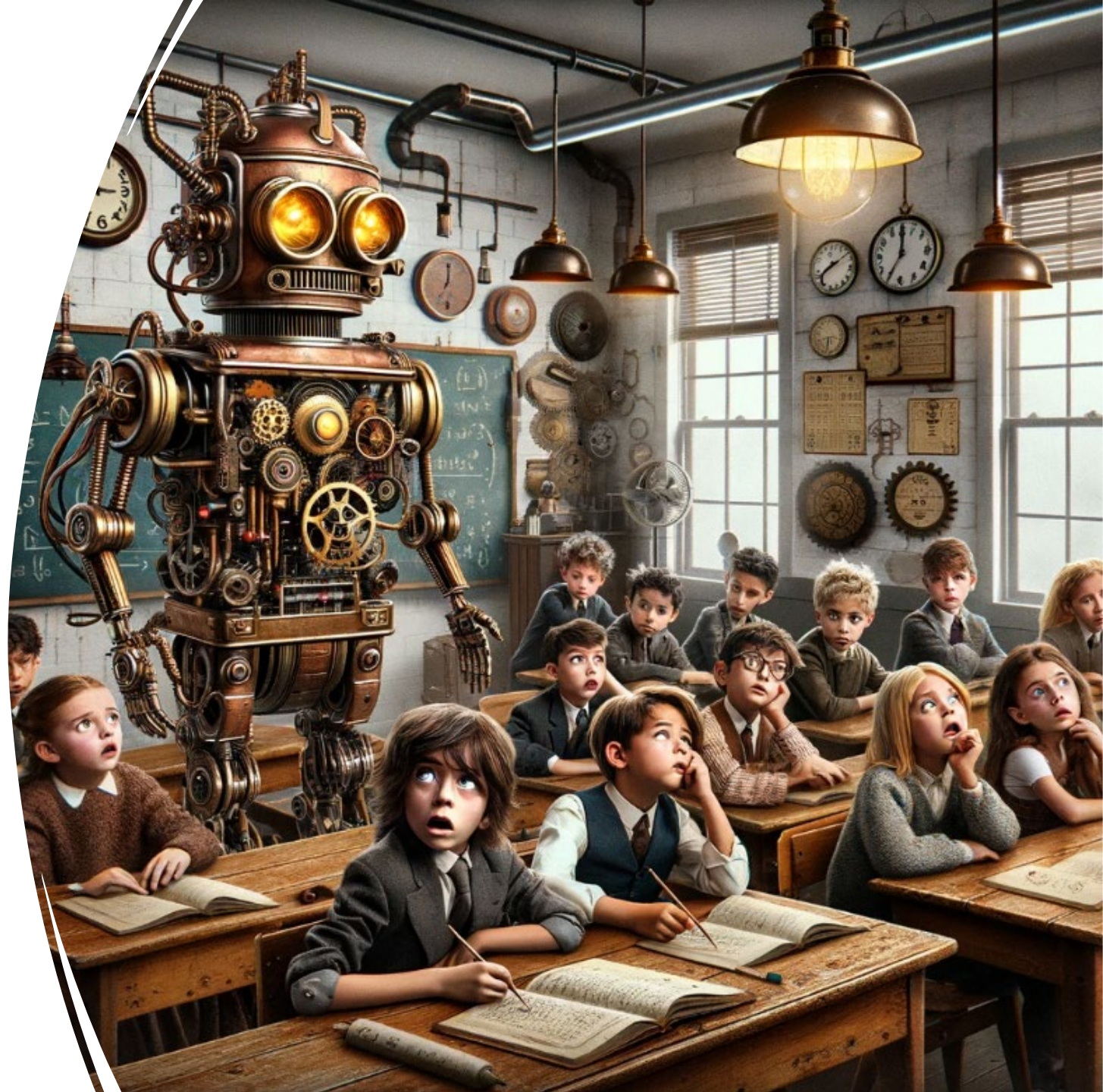
AI Protecting Democracy

- Good people, not just "bad guys" use AI technology
 - Researchers, fact-checkers, and tech companies are developing AI to combat misinformation
- AI can be used to police social media more effectively:
 - Detecting and flagging potential deep fakes and manipulated media
 - Identifying and removing bots and coordinated inauthentic behavior
 - Analyzing patterns of misinformation spread and identifying its sources
- Examples of AI-powered tools for protecting democracy:
 - Facebook's DeepFake Detection Challenge and fact-checking partnerships
 - Google's Fact Check Explorer and Perspective API for toxicity detection
 - Microsoft's Video Authenticator
- Ongoing research and development in AI will be crucial to staying ahead of malicious actors



#4 Will AI damage education?

- It's a tool, using it involves a learning curve. Using AI is another way to attain higher thinking skills
- The same worries have been expressed about other technologies:
 - Radio, television, calculators, computer games, the internet, TikTok (clip thinking)





AI in Education

- Education must prepare students to be competitive in the use of AI
- Cheating is a wrong thing to worry about. Cheating-resistant assignments are the way to go
- The real concern is about displacement of foundational skills
 - We need an update on learning theory
 - We need discipline-specific research on foundational skills
 - We need broad scope of natural experiments by faculty
- Equity implications, both positive and negative
- Bias and hallucinations issue
- These are real, but solvable problems

Thank you for your attention!

- Everyone can help! We appreciate donations, and welcome connections
- To contact and donate see <http://csus.edu/ai>

