



AI IN EDUCATION

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STUDENTS' PERCEPTIONS AND INSIGHTS ON AI IN EDUCATION

Start Your Report

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INTRODUCTION

The rapid integration of Artificial Intelligence (AI) into education is fundamentally reshaping learning processes, teaching methodologies, and administrative systems. Understanding students' perceptions is essential, as they are the primary stakeholders impacted by these technological advancements. Misinterpretations or resistance to AI could undermine educational innovation efforts.

Capturing accurate insights ensures that AI applications meet real student needs rather than imposing unwanted change. Recognizing this necessity, the Faculty of Cybernetics, Statistics, and Economic Informatics conducted a focused research study. The goal was to critically assess how future digital professionals perceive AI's role, usefulness, and risks within the academic environment.



Research Focus and Target Audience

Problem Statement

Successful integration of AI in education depends on understanding student perspectives; lack of student input risks ineffective implementation, wasted resources, and growing scepticism. AI tools may fail to improve education without concrete data on learners' needs and concerns. This research identifies student perceptions to ensure AI aligns with real academic demands.

Target Audience

- University administration and faculty
- EdTech companies and AI developers
- Policymakers in education and technology
- Academic researchers and think tanks
- Student career services

RESEARCH QUESTIONS



1. What is the students' level of knowledge about AI, and which sources do they most commonly use to learn about it?
2. What are the dominant attitudes toward AI's societal effects (dehumanization, job replacement, problem solving, AI ruling society)?
3. How do students perceive the economic impacts of AI (cost, economic crisis, economic growth, job loss)?
4. Which sectors do students believe AI will impact most significantly?
5. Do students believe AI leads to job loss or global economic growth?
6. What are students' perceptions of AI usefulness in education?
7. How do students perceive the key advantages and potential drawbacks of AI integration in teaching, learning, and evaluation processes?
8. Is there any correlation between students' perceived AI knowledge and perceived AI usefulness?

Background Study: The Evolution of AI in Learning

From Early Systems to Modern Adoption



The application of Artificial Intelligence (AI) in education dates back to the 1960s with pioneering tools like the SCHOLAR intelligent tutoring system. Today, AI powers adaptive learning platforms, personalized education models, and streamlined administrative processes worldwide.

Opportunities and Challenges



AI enhances education through personalized learning, administrative efficiency, and real-time feedback. However, challenges include reduced human interaction, job displacement concerns, and system failures without human oversight. Balancing AI's benefits with ethical implementation is crucial to maintain educational quality and trust while leveraging technological advancements effectively.

Romania's Digital Transformation

In Romania, AI integration gained momentum post-2010, particularly in technical universities and economic faculties. This reflects a national commitment to digital innovation, positioning education at the forefront of technological advancement.

The Path Forward

Ethical AI deployment must prioritize student perspectives to ensure solutions are trusted, equitable, and aligned with educational goals. Without this focus, AI risks widening inequalities or becoming obsolete due to user resistance.

Methodology: Data Collection and Analysis

Data Collection

This study analyzed an existing Kaggle dataset (Survey on Students' Perceptions of AI in Education), comprising responses from 91 undergraduate students in Cybernetics. The secondary data included perceptions, attitudes, and demographics related to AI in education.

Data Cleaning

Qualitative responses such as "Strongly Agree" and "Neutral" were systematically recoded into numerical scales (1–5) in Excel for statistical consistency. All variables were standardized: Likert scales and categorical encodings were aligned to ensure valid cross-comparisons across responses.

Data Analysis

The dataset was analyzed using Excel, leveraging pivot tables to organize categorical data and percentage calculations for normalization. Findings were visualized through multiple chart types (column, stacked bar, donut, funnel, and scatter plots) to enable comprehensive insights.

Data Storytelling

An interactive Excel dashboard was created with logical slicers and structured layouts. It sequentially presented students' AI knowledge, information sources, societal attitudes, economic impacts, and demographics. A professional color scheme ensured clarity, facilitating data-driven storytelling.



Results and Discussion

This section critically interprets the survey data, addressing each research question in detail. The analysis is grounded in student responses and supported by visualizations extracted from the Excel dashboard. Each research question is linked directly to specific findings, contextualizing numerical evidence to draw meaningful conclusions. Charts such as bar graphs, stacked columns, donut charts, and scatter plots are used to convey patterns and insights clearly. The discussion connects these findings to the study's target audience.

[Read More](#)

1: What is the students' level of knowledge about AI, and which sources do they most commonly use to learn about it?

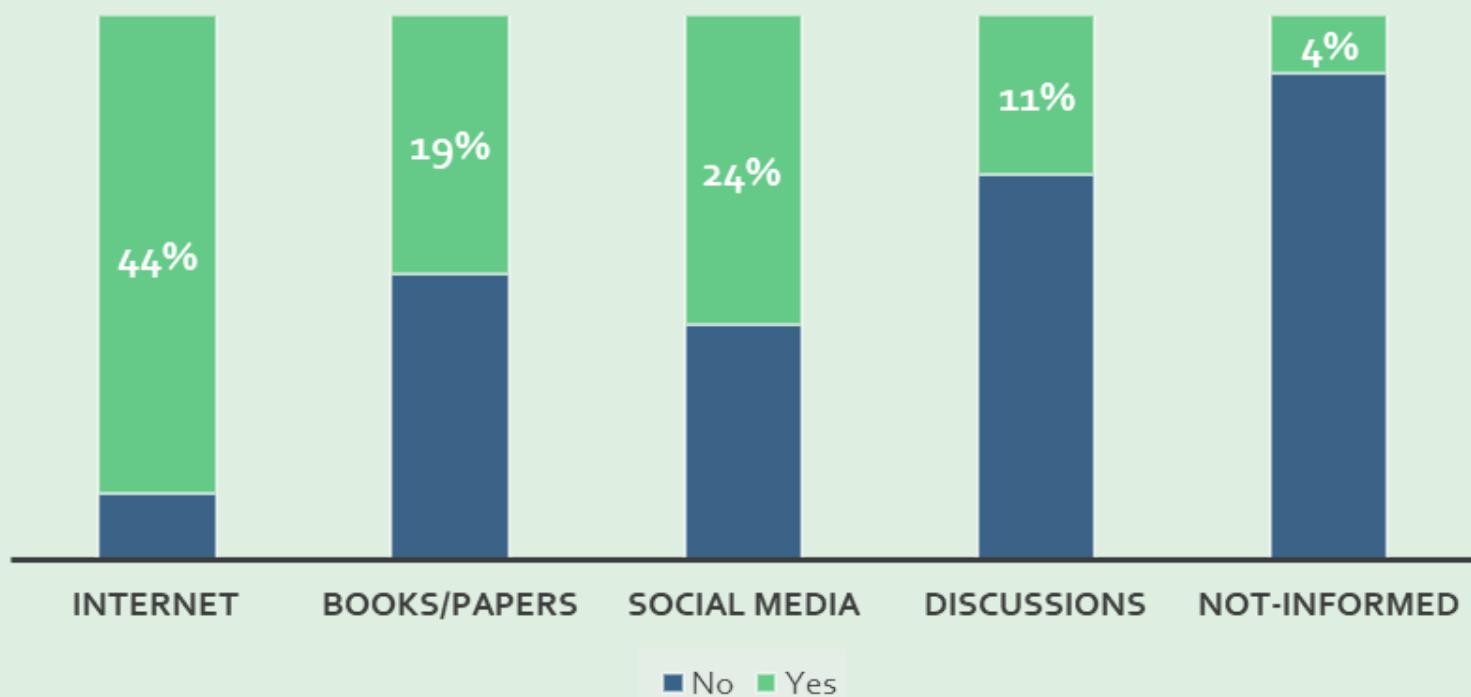
Most students rated their AI knowledge between 5 and 8, with 19% selecting each rating 5, 6, and 7. This mid-level awareness suggests exposure but not expertise. The Internet is the primary learning source (44%), followed by social media (24%), showing a strong preference for informal digital channels over academic texts (19%).

This is critical for EdTech companies and faculty—effective AI integration must begin by elevating formal AI literacy and leveraging digital platforms students already trust. These insights guide administrators on where to embed structured AI content within the curriculum.

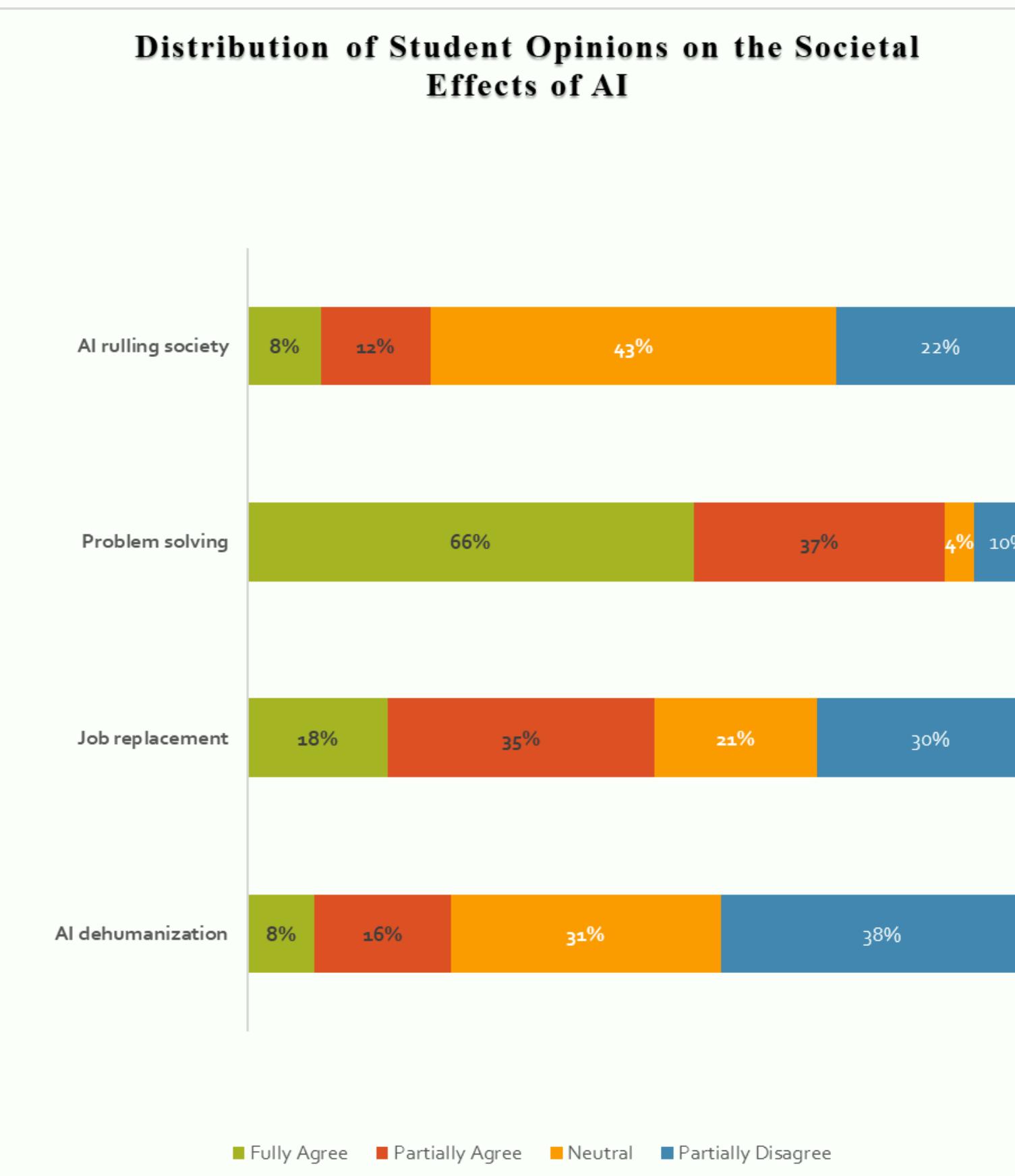
Students' Self-Reported Awareness of Artificial Intelligence (Scale 1–10)



Common sources students use to learn about AI



2: What are the dominant attitudes toward AI's societal effects (dehumanization, job replacement, problem solving, AI ruling society)?



Students overwhelmingly (66%) fully agree that AI helps solve societal challenges, including education and healthcare. However, 35% also partially agree that robots will replace people at work, highlighting real concern about labour displacement. Only 8% fully agree that AI will "rule society," showing that students do not perceive AI as an existential threat.

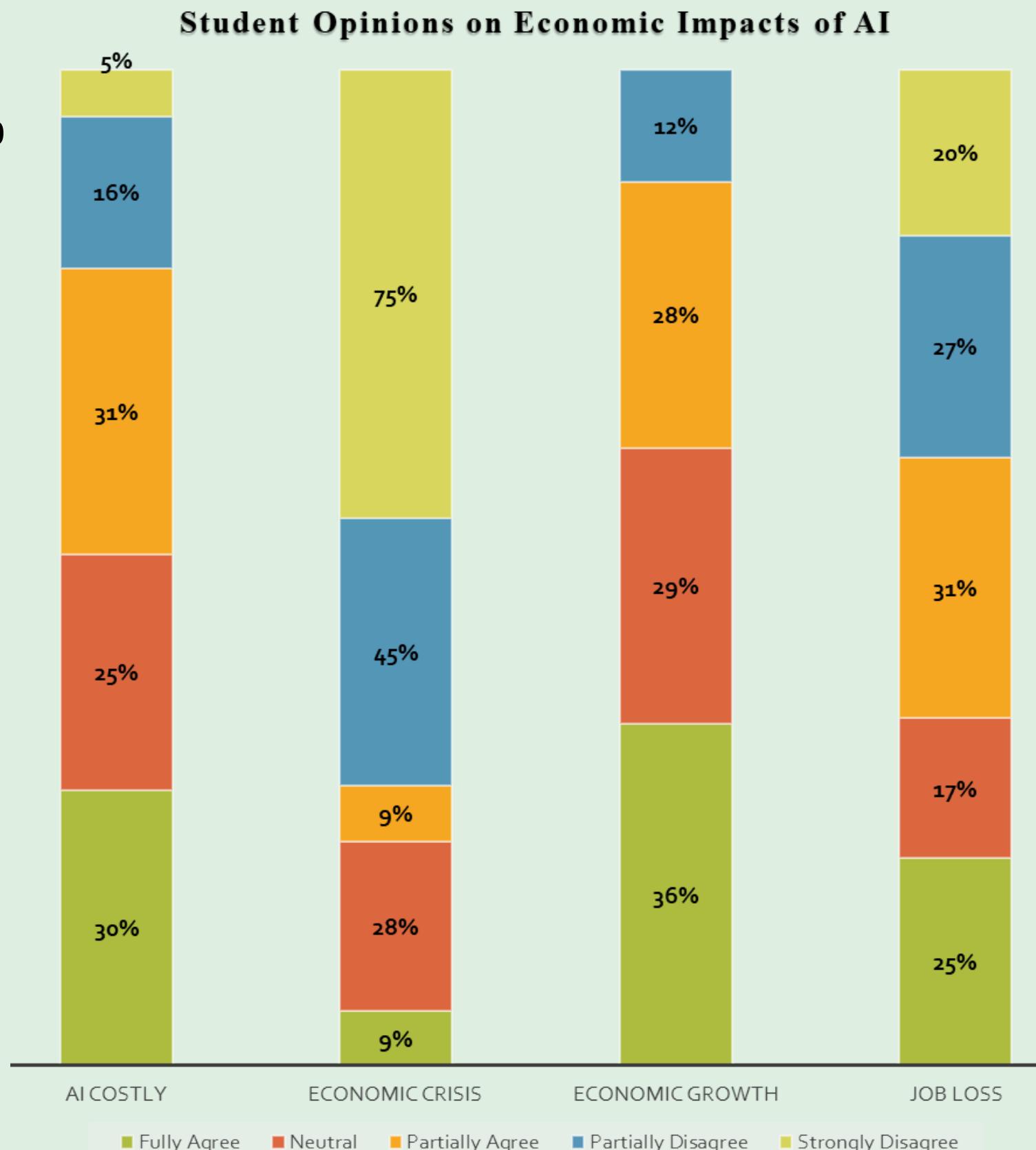
This reflects support for productive AI deployment for policymakers but underscores the need to address fears of workforce transition.

Universities should contextualize AI's limitations and ethical boundaries to reduce misconceptions while nurturing confidence in human-centred design.

3: How do students perceive the economic impacts of AI (cost, economic crisis, economic growth, job loss)?

A solid 36% fully agree that AI will help global economic growth, while job loss remains a worry—31% partially agree. Meanwhile, concerns over a global financial crisis due to AI are low: only 9% fully agree. Students perceive AI as a long-term economic enabler rather than a destabilizer.

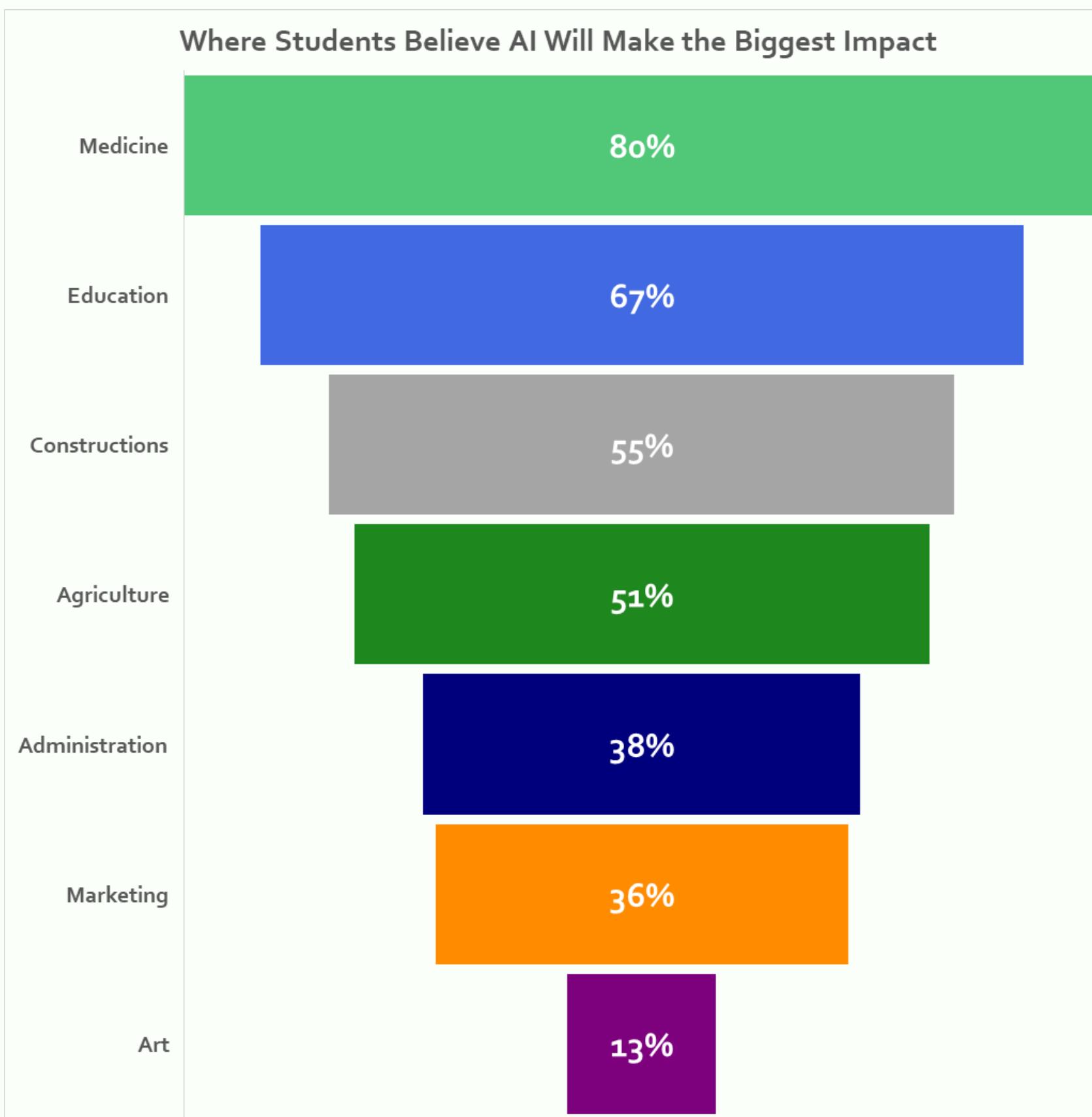
This provides actionable insight for educational administrators and government agencies promoting AI-related programs. Addressing job loss anxieties through AI career reskilling initiatives and transparent cost-benefit discussions will build trust and support responsible implementation across sectors.



4: Which sectors do students believe AI will impact most significantly?

The funnel chart indicates Medicine (80%), Education (67%), and Constructions (55%) as top sectors for AI impact. Lower confidence in Art (13%) and Marketing (36%) reflects students' perception that AI is more suited to structured, problem-solving environments than creative domains.

For EdTech and policy stakeholders, this validates channeling AI investment into core service sectors while addressing misconceptions about AI's creative and administrative potential. Faculty can also use this data to align interdisciplinary AI applications in underappreciated sectors, expanding student awareness of career opportunities beyond traditional tech fields.



5: Do students believe AI leads to job loss or global economic growth?

Analysis shows that 53% of Statistics & Forecasting students partially

agree AI will cause job loss—higher than their peers in Cybernetics or

Informatics. This discipline-specific fear may stem from automation

threats to statistical and forecasting roles. Yet, 36% of all students fully

agree AI will promote global economic growth.

This duality shows that while students expect AI to transform economies

positively, they are concerned about job relevance. For curriculum

designers and career services, this highlights the urgent need to

incorporate AI-related job-readiness modules to mitigate career anxiety

and position students competitively.

Perceptions of AI's Impact on Job Loss Across Academic Majors



6: What are students' perceptions of AI usefulness in education?

**Perceived Usefulness of AI in the Educational Process
(Scale 1–10)**

Utility ratings show that 23% of students rated AI usefulness at 10/10, and

68% rated it between 7 and 10. This strong confidence in AI's educational

value suggests students are ready for more advanced digital tools in

learning environments.

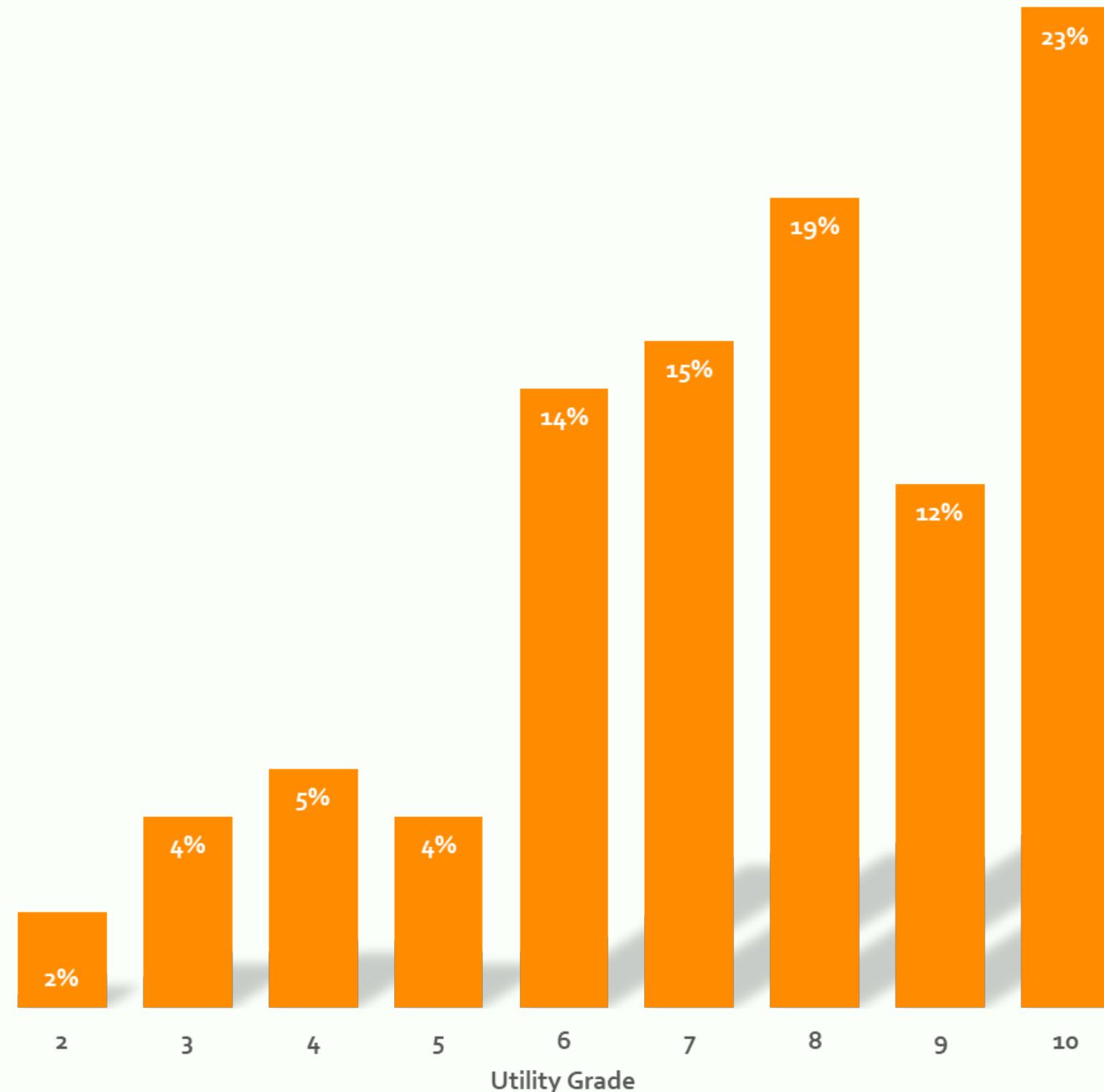
These findings are essential for faculty and EdTech stakeholders to justify

integrating adaptive learning systems, intelligent tutoring, and AI-based

grading mechanisms. This data should also inform government strategies

in digital education funding, emphasizing high student receptiveness to

technology-supported instruction.



7: How do students perceive the key advantages and potential drawbacks of AI integration in teaching, learning, and evaluation processes?

Students appreciate AI's ability to support teachers (43%), offer universal access (53%), and deliver continuous feedback (49%). However, 37%

cite loss of teacher-student bond as the top drawback. These responses signal that students endorse AI's efficiency and inclusiveness but remain concerned about relational detachment.

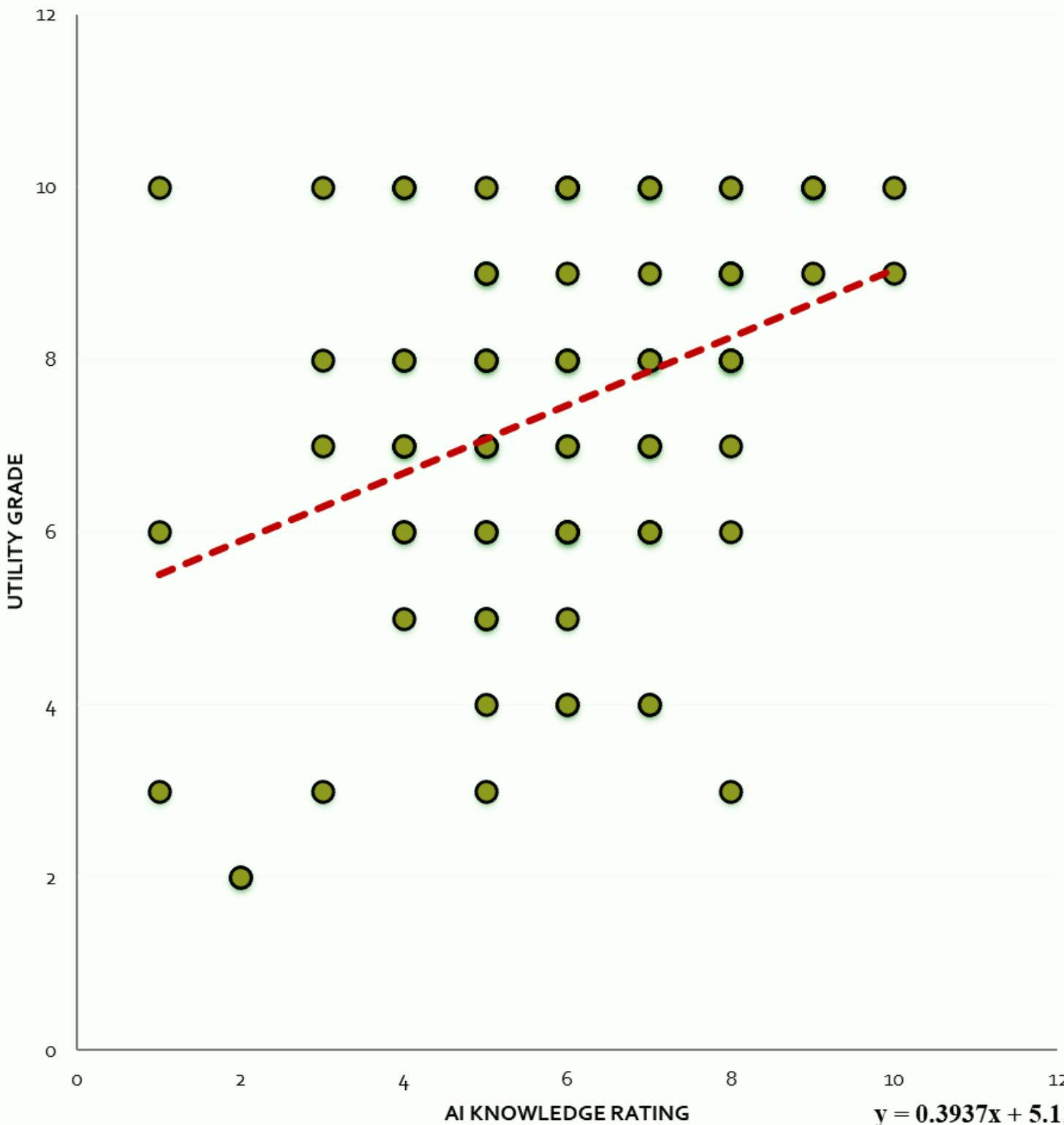
For administrators and EdTech firms, this means building hybrid systems—where automation enhances but does not replace human interaction—

is key to successful adoption. Ethical AI frameworks must prioritize maintaining emotional and pedagogical connectivity in classrooms.

Student's Perception	Percentage
Teaching (AI Assistant)	43%
Learning (Universal Access)	53%
Evaluation (Constant Feedback)	49%
Disadvantages (No Student-Teacher Bond)	37%

8: Is there any correlation between students' perceived AI knowledge and perceived AI usefulness?

A Scatter Plot of AI Knowledge Rating Against Utility Grade



A clear positive linear correlation is evident: students who rate themselves as more knowledgeable about AI tend to rate its usefulness in education higher. This indicates that AI literacy directly shapes acceptance. For universities, this insight is critical—boosting students' understanding of AI's capabilities and limits can significantly increase their willingness to use AI-powered tools. Integrating AI courses or workshops into non-technical programs could therefore drive wider adoption, reduce resistance, and foster innovation-oriented mindsets across disciplines.

Conclusion

- This research demonstrates that students possess a moderate understanding of AI and overwhelmingly recognize its educational value, particularly in teaching assistance, inclusive learning, and real-time evaluation.
- However, concerns about job loss, economic disruption, and weakening human relationships persist. These insights directly address all research questions, confirming that while students support AI adoption, ethical integration and human-centred design remain crucial.
- Faculty, developers, and policymakers must act on this evidence to align AI strategies with students' expectations, close the literacy gap, and ensure responsible digital transformation across education systems.



Recommendations

To maximize the value of AI in education, targeted actions must be taken by key stakeholders:

- **Strengthen AI literacy.**

Incorporate AI awareness programs across all academic disciplines to deepen student understanding. Increased knowledge correlates directly with acceptance and positive perception.

- **Design human-centered AI tools.**

Focus on tools that support—not replace—teachers. Balance automation with relational engagement to prevent alienation in learning environments.

- **Promote inclusive access.**

Prioritize tools that bridge access gaps—especially for students with disabilities or those in underserved areas.

- **Support flexible digital integration.**

Develop AI policies that allow gradual adoption with student input, ensuring trust, transparency, and ethical standards across platforms and processes.



Thank You For Attention

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