

Nish and I are proud to negate the solution resolved: **In the United States, the benefits of the use of generative artificial intelligence in education outweigh the harms.**

Our first argument is **Clipping the Wings of knowledge**

AI hurts education in 2 key ways, the first bias

### **AI is inherently biased**

**Greene-Santos 24** [Aniya Greene-Santos, "Does AI Have a Bias Problem?", 2/22/2024, neaToday, <https://www.nea.org/nea-today/all-news-articles/does-ai-have-bias-problem>]/nishu

From using AI robots as tutors to using spell check to correct written assignments, AI has found itself in classrooms across the country, like Melissa Gordon's. The high school business teacher in Ann Arbor, Mich. started using AI in her classes over a year ago. "I saw the amazing things other teachers were doing with it in their classrooms. So, I started typing things into [ChatGPT] and came up with different ways to use it in class," Gordon says. One of the many ways she began using it was in her business principles and management class. Gordon decided to have her students use ChatGPT to help with resume writing. "We dove into the ethics of ChatGPT and the appropriate ways to use this technology," she says. She saw this as an **opportunity to** teach students to **use AI** as a tool not **as a substitute** for learning. "**Students are being exposed to it** either way. If we teach them how to use it for good, then I think they will see it as a tool," Gordon says. **As schools across the country begin to implement AI** technology in classrooms, **there are also growing concerns about a widening digital divide** that could potentially stem from it. **AI** May **Deepen** the Digital Divide Misty Freeman, **educator and unconscious bias** coach, from Dothan, Ala. NEA research reveals that an estimated **one quarter of all school-aged children live in households without broadband access or a web-enabled device** such as a computer or tablet. This inequality is **systematically related to the historical divisions of race, socioeconomic status, and geography**. Misty Freeman, an educator and unconscious bias coach, has researched the intersections of **bias, technology**, and neuroscience and its impact on Black women and girls. Freeman says she has seen the ways in **which** technology **has impacted Black students**. One of the many ways is through access. The digital divide in the United States separates internet access and technology in rural areas—regardless of race. **When factoring in race or ethnicity, the divide is further exacerbated** typically in southern areas with higher Black populations.

## That bias is proven and can't be fixed

**Fussell 18** [Sidney Fussell, "Can We Make Non-Racist Face Recognition?", 7/25/2018, Gizmodo, <https://gizmodo.com/can-we-make-non-racist-face-recognition-1827639249//nishu>]

In the paper, **Microsoft**'s gender classifier **had a 20.8 percent error rate for dark-skinned women**. In response, Microsoft announced in June it was recalibrating the training data through diversifying skin tones in facial training images, applauding itself for balancing the racial discrepancies in gender classification rates. This, however, only speaks to one kind of bias in face recognition. "We're talking about two separate and unique issues in our industry," **Brian Brackeen, CEO of AI startup Kairos, told Gizmodo. Technical biases**, he explained, have technical solutions. But even fully functioning face recognition **can abet biased systems**, a problem requiring more culturally complex solutions. "Both are problems and both deserve attention, but they are two separate things." Kairos makes biometric login systems that can let bank customers use their face to check their accounts, employees clock into work, and people at amusement parks access fast-pass lanes. In these contexts, Brackeen says, the stakes of a false positive or a false negative are much lower. Being misidentified by your bank is not the same as being misidentified by police. "I'm much more comfortable selling face recognition to theme parks, cruise lines, or banks," said Brackeen, "if you have to log into your [bank] account twice because you're African American, that's unfair. But, you're not gonna get shot." Brackeen, who jokingly identifies as "probably the only" black CEO of a face recognition company, entered the media spotlight last month when he revealed Kairos turned down a contract with body camera manufacturer Axon. According to Brackeen, face recognition exponentially enhances the capabilities of police, which, in turn, exponentially **exacerbates the biases of policing**. "When you're talking about an AI tool on a body camera, then these are extra-human abilities. Let's say an officer can identify 30 images an hour," said Brackeen. "If you were to ask a police department if they were willing to limit [recognition] to 30 recognitions an hour they would say no. Because it's not really about the time of the officer. It's really about a superhuman ability to identify people, which changes the social contract." Ultimately, Brackeen sees a vendor-end solution: In an editorial last month, he called for every single face recognition company to stop selling its tech to law enforcement agencies. Fruit from a poisonous tree Face recognition works by matching the person being scanned against a database of facial images. In policing contexts, these databases can include passport and driver's license photos or mugshots. In Orlando, police partnered with Amazon to test face recognition connected to surveillance cameras in public places. In New York, school districts have begun exploring similar systems to scan visitors' faces after the Parkland shooting. In both cases, the goal is to instantaneously identify persons of interest, such as those with outstanding warrants. This, however, assumes warrants are themselves distributed "fairly" or should always trigger police intervention. Consider Ferguson, Missouri, where the shooting death of Mike Brown sparked days of protests. A Justice Department investigation after Brown's death found that Ferguson police were "shaped by the city's focus on revenue rather than by public safety needs." As the report explained, police routinely targeted black drivers for stops and searches as part of a racist, lucrative revenue model, issuing arrest warrants for missed and partial payments. The numbers were staggering: Representing 67 percent of the population in Ferguson, black citizens were the target of 85 percent of traffic stops, and 91 percent of all stops resulted in some form of citation. In a future where all drivers are instantly identifiable via face recognition, consider what life would be like for anyone instantaneously matched and identified with an outstanding arrest warrant as a result of a biased system. **As** face recognition becomes standardized and **enters schools**, stadiums, airports, and transit hubs, the surveillance powers of the police grow. **Even with recalibrated training models, "bias" is present**. One scholar we talked to argued **bias-free** face recognition **could never exist** in the policing system. "[Face recognition] imagines policing as neutral. We know that's not the case," Simone Browne, an assistant professor at the University of Texas at Austin and the author of *Dark Matters: On the Surveillance of Blackness*, told Gizmodo. *Dark Matters* argues that biometric surveillance turns the body itself into a form of evidence, a form of hyper-objectification with historical connections to slavery. Browne writes:

## Racial bias hurts educational outcomes

**Steps4Kids 24** [Steps4Kids, "Understanding Racial Bias in Education: Key Insights Explored", 9/18/2024, Steps4Kids, <https://steps4kids.com/what-is-racial-bias-in-education/>]

Examine how racial **bias in education directly hinders academic achievement for marginalized students.** – Racial **bias leads to disparities in academic outcomes, with** marginalized **students consistently underperforming compared to their non-marginalized peers. This perpetuates** a cycle of **disadvantage and limited opportunities for** these **students.** – The effects of racial bias on educational attainment are far-reaching. **Students who experience bias** may **have lower self-esteem, reduced motivation, and decreased** engagement in the **learning** process. **This negatively impacts their ability to succeed academically.** – Racial bias can also result in unequal access to quality education resources and opportunities. Marginalized students may be assigned to lower-performing schools, which often lack adequate funding, experienced teachers, and advanced courses. This further widens the achievement gap between marginalized and non-marginalized students. See also Explained: What Is Chunking in Education? – Additionally, racial bias can manifest in biased grading practices and disciplinary actions. Students of color are more likely to be disciplined harshly for similar behaviors as their white counterparts, leading to higher suspension and expulsion rates. These punitive measures disrupt their education and hinder academic progress.

## That's bad because Education is key to better jobs

**Bureau of Labor Statistics 20** [US Bureau of Labor Statistics, "Learn more, earn more: Education leads to higher wages, lower unemployment", 5/2020, US Bureau of Labor Statistics, <https://www.bls.gov/careeroutlook/2020/data-on-display/education-pays.htm>]/nishu

If you're wondering whether it pays to stay in school, take a look at data from the U.S. Bureau of Labor Statistics (BLS): As workers' educational attainment rises, their unemployment rates decrease and earnings increase. Median weekly earnings and unemployment rate by education attainment, 2019 Bar chart with 2 data series. The chart has 1 X axis displaying categories. The chart has 1 Y axis displaying values. Data ranges from 592 to 1883. End of interactive chart. View Chart Data As the chart shows, workers age 25 and over who have **less education [was correlated with]** than a high school diploma had the **highest unemployment rate** (5.4 percent) and **lowest** median weekly **earnings** (\$592) in 2019 among those at all education levels. Workers with graduate degrees had the lowest unemployment rates and highest earnings. These data come from the BLS Current Population Survey, a monthly survey that collects information about the labor force, including age, employment status, and other characteristics. Each level of **education** you complete may **help you develop more skills, give you access to higher paying occupations**, and signal that you're able to follow through on important tasks, such as planning ahead and meeting deadlines, that employers value. Other factors affecting employment and earnings include geographic location, experience, and hours worked. BLS data and information can help you understand some of these factors. For example, the Occupational Outlook Handbook provides information on wages, typical education requirements, and the projected job outlook for hundreds of occupations.

## Ensuring education and creating jobs is key for solving poverty

**Misra 17** [Jagriti Misra, "The Relationship Between Jobs and Poverty", 9/24/2017, The Borgen Project, <https://borgenproject.org/jobs-and-poverty/>]/nishu

The proportion of the world's population living in extreme poverty has decreased significantly since 2012, with 767 million people, or 10.7 percent of the population, now living below the international poverty line, which is \$1.90 per person per day. Despite the global financial crisis of 2008-2009, the world poverty rate has steadily declined over the past decade. **To have any hope of escaping poverty**, income from **stable work is essential.** **According to** Annette Dixon, **World Bank** South Asia Region Vice President, **jobs are necessary to push people out of poverty.** A flourishing private sector can help with job creation, while investments in education, healthcare and social protection can ensure that people are credentialed appropriately for those jobs. Investing in women's education is also imperative if countries are to pull themselves out of poverty. In fact, a woman's earning potential increases by 20 percent with every year of schooling she receives. A recent study conducted by the World Bank on factors affecting poverty found a **strong correlation between better jobs and poverty reduction.** The study, which

was conducted in Cambodia, Mongolia, Philippines, Thailand, Timor-Leste and Vietnam, found that a steady income was the largest contributor to poverty reduction. With the exception of the Philippines, incomes from **jobs** explained 40 percent of the observable reduction in poverty. On the other hand, in Timor-Leste, the loss of labor income between 2001 and 2007, during a period of civil conflicts, explained almost all of the increase in poverty. The type of labor income plays an important role when discussing better jobs and poverty reduction initiatives. While work in agriculture was a major driver of poverty reduction in the 1980s and 1990s, more recently this has been replaced by wage incomes. Wage incomes **explain 50 percent of poverty reduction** in countries like Vietnam, the Philippines and Cambodia. In this respect, a flourishing private sector and employment-related training can help bridge the gap between skilled labor and targeted jobs. The bottom line is that ending poverty and boosting shared prosperity hinge on creating better labor market conditions for the poor. In other words, steady income through better jobs and poverty reduction go hand in hand. Job creation, higher productivity and growth in real wages at the bottom of the distribution are the main mechanisms to achieve sustained poverty reduction.

## The second reason why there are more harms is **Dreaming Big**

**The current generation is not cognitively ready.**

**There are two reasons GenAI kills critical thinking:**

### **1. Reliance**

**Reliance on AI kills out-of-the-box thinking.**

#### **Cela '24**

<https://www.igi-global.com/article/risks-of-ai-assisted-learning-on-student-critical-thinking/350185>

Artificial Intelligence (AI) has increasingly become a transformative force in the education sector, offering unprecedented opportunities to enhance learning experiences and outcomes. This study examines the potential adverse effects of AI-assisted learning on critical cognitive skills, particularly critical thinking and problem-solving, within the context of Albania's educational landscape. Employing a quantitative methodology, a survey of 53 students was conducted across various educational institutions in Albania to gather data on their experiences and perceptions regarding AI-assisted learning. The **Findings indicate** no significant difference in critical thinking skills between students with prior exposure to AI tools and those without. However, **there is a statistically significant negative correlation between reliance on AI tools for assignments and students' problem-solving skills**, suggesting that **excessive dependence on AI can hinder the development of independent problem-solving abilities**. Conversely, a strong positive correlation was found between the frequency of AI tool usage and students' perceptions of academic performance and assignment efficiency, highlighting the potential benefits of AI in enhancing these aspects of the educational experience. These results emphasize the need for a balanced integration of AI tools in education to ensure they complement rather than replace traditional learning methods. The study's findings have significant implications for educators and policymakers, suggesting that while AI can enhance certain educational outcomes, it is essential to address its potential risks to promote the development of essential cognitive skills. Future research should focus on larger, more diverse samples, incorporate objective measures of cognitive skills, and explore the long-term impacts of AI-assisted learning.

## That's why Cela goes on to find

<https://www.igi-global.com/article/risks-of-ai-assisted-learning-on-student-critical-thinking/350185>

The analysis of the **data** also **revealed** several key findings regarding the impact of reliance on AI tools for assignments on students' problem-solving skills. The descriptive statistics as shown in Table 8 demonstrate that the mean reliance on AI tools for assignments was 2.17, with a standard deviation of 1.25. In comparison, the mean score for problem-solving skills was 3.06, with a standard deviation of 1.39. These statistics indicate a moderate level of reliance on AI tools and a slightly above-average self-assessment of problem-solving abilities among students. The Pearson correlation analysis revealed a correlation coefficient of -0.712 between reliance on AI tools and problem-solving skills, with a p-value of less than 0.000000001. This indicates a statistically significant negative relationship, suggesting that **as students rely more on AI tools for their assignments, their problem-solving skills tend to decrease**.

Further examination through linear regression analysis showed that the model **explained 50.7% of the variance** in problem-solving skills, with an R-squared value of 0.507. The regression coefficient for reliance on AI tools was -0.7918, with a p-value of less than 0.001. This coefficient indicates that **for each unit increase in** reliance on **AI** tools, there is an associated **[there is a decrease of** approximately **0.7918 units in** problem-solving **skills**. The significant negative coefficient supports the hypothesis that increased reliance on AI tools negatively impacts problem-solving skills. The scatter plot shown in Figure 3 shows the correlation between reliance on AI tools for assignments and problem-solving skills. The scatter plot shows individual data points, and the black regression line indicates the negative correlation between the two variables. As reliance on AI tools increases, problem-solving skills tend to decrease, supporting the hypothesis (H3). Hypothesis testing using a t-test compared the levels of problem-solving skills among different levels of reliance on AI tools. The t-statistic was -2.618, with a p-value of 0.011, which is below the conventional threshold of 0.05. This result allows us to reject the null hypothesis and accept the alternative hypothesis (H3), confirming that reliance on AI tools for assignments significantly negatively impacts students' problem-solving abilities. The significant negative correlation and regression results underscore the importance of addressing the balance between using AI tools for efficiency and maintaining the development of independent problem-solving capabilities. These insights are critical for educators and policymakers aiming to integrate AI tools into educational practices without compromising essential cognitive skills.

## 2. Programming

### GenAI is fundamentally unable to innovate.

#### Grey '25

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<https://www.wordrake.com/blog/wordy-choppy-generative-ai>

In this article, we'll start with a primer on what these **generative AI** tools do and how they work. Then we'll explore how such seemingly clear text can be nonsense upon further inspection. Finally, we'll take a deep dive into what makes AI-generated output feel slightly wrong and discuss how to fix it. Large language models, or LLMs, are advanced AI systems capable of understanding and generating human-like text. You may be familiar with models like GPT, PaLM, or Dolly. For a primer, read We need to talk about ChatGPT by Damien Riehl. Most consumers access those LLMs through a question-and-answer interface (which is why these tools are called chats). Examples of these tools are ChatGPT by OpenAI and Bard by Google. The question or command is called a prompt, and you, the user, state your prompt as if you were telling a human to do something. In response, the tool generates some output, which could be text, a graph, an image, computer code, or more. For this discussion, we'll focus on text output. Because many of the sources that AI companies used to train their new tools were formal writing by educated native English speakers, AI writing sounds fluent and well-educated on the surface (word order, word choice). However, remember that these tools **create writing based on word frequency and the likelihood that a given word**

**will come after another word or that a given sentence will come after another sentence.** Think of it like an advanced version of predictive text on your cell phone.

As a result,

### Schwanke '24

<https://medium.com/@axel.schwanke/generative-ai-never-truly-creative-68a0189d98e8>

**While AI excels at producing and remixing existing patterns, it lacks the emotional depth and intuitive understanding necessary for true originality.** This limitation raises the crucial question of whether AI can ever truly emulate the essence of human creativity or merely copy existing artistic concepts without true innovation.

For these two reasons,

### Davies '24 empirically concludes

<https://pursuit.unimelb.edu.au/articles/our-kids-are-missing-out-on-critical-thinking>

**A recent** OECD **study involving 120,000 students** from six countries **found that one-fifth of students performed at the lowest level in critical thinking, with half performing at the two lowest levels.**

## The Impact is: Livelihoods

### Wells of Forbes in '24

<https://www.forbes.com/sites/rachelwells/2024/01/28/70-of-employers-say-creative-thinking-is-most-in-demand-skill-in-2024/>

If you want your career to thrive, or your organization to survive in 2024, tapping into and building your creative thinking skills is an absolute necessity as an aspiring leader. Approximately **73% of organizations** surveyed in the **World Economic Forum's Future of Jobs Survey** reported that creative thinking skills was a top priority for them when considering talent as we move into the future, agreeing that this skill set is increasing in relevance **and** importance. "More than 70% of **companies** surveyed **consider creative thinking and analytical thinking to be the skills most** expected to rise in **importance** between 2023 and 2027," says Statista, who conducted another study **in** which they **surveyed 11.3 million employees from 803 organizations** globally from November 2022 to February 2023. "Indeed, cognitive skills are the skills growing in importance most rapidly **due to increasing complexities in the workplace.**"

Lower wages mean worse life outcomes.

**Kezios 23**, Katrina [in dept. Of public health at Columbia University] L et al. "History of Low Hourly Wage and All-Cause Mortality Among Middle-aged Workers." JAMA vol. 329,7 (2023): 561-573. doi:10.1001/jama.2023.0367

In a longitudinal study of 4002 workers with biennially reported hourly wage, a sustained history of **low-wage earning[s]** in midlife was **[are] associated with significant**ly earlier and **excess mortality and increased poverty rates**, especially for workers whose low-wage earning was experienced in the context of employment instability.

## **Solving poverty by ensuring a better education in America WITHOUT AI is key, poverty kills**

**Carbonaro 23** [Giulia Carbonaro, "Poverty Is Killing Nearly 200,000 Americans a Year", 6/22/2023, Newsweek, [//nishu](https://www.newsweek.com/poverty-killing-nearly-200000-americans-year-1806002)

The land of the free is suffering from a "self-inflicted" injustice when it comes to poverty, experts say, as the rich are getting richer while **thousands living without sufficient means die every year in the United States**, as a recent study shows. The issue, according to an exclusive poll conducted by Redfield & Wilton Strategies on behalf of Newsweek, worries a majority of Americans. **Research by the University of California, Riverside (UCR)** published earlier this year **in the Journal of the American Medical Association found** that **the death of 183,000 Americans** aged 15 years old and above in 2019—**a year** before the explosion of the pandemic were to make mortality rates in the country much, much worse—could be **attributed to poverty**, defined as those with incomes lower than 50 percent of the U.S. median. In 2019, the median household income was \$69,560. In the same year, about 34 million Americans—10.5 percent of the country's population—were estimated by the U.S. Census Bureau to be living in poverty. Poverty remains a huge issue in the U.S., much more so than in other countries with similar levels of distributed wealth, and it is a cause of concern for a majority of Americans, as shown by the Newsweek/Redfield & Wilton Strategies poll. The poll, conducted among a sample of 1,500 eligible voters in the U.S. on May 31, found that some 53 percent of **Americans are** "very" **concerned about the level of poverty in the country**. Among Democrats—identified as people who voted for Joe Biden in 2020—the number went up to 58 percent, while among Republicans—identified as people who voted for Donald Trump in 2020—48 percent said they were "very" concerned about poverty in the U.S. Some 21 percent of Americans responding to the poll don't earn enough money from their primary job to pay bills or maintain their family's standard of living, while 52 percent are working multiple jobs to tackle the daily cost of living. **More women (24 percent) than men (18 percent) said they didn't earn enough money to pay the bills, while more men (57 percent) than women (49 percent) said they were doing more than one job. The age cohort with the biggest percentage of people doing more than one job was 35-44, with 77 percent of respondents working multiple gigs.**