NEG

We negate the resolution resolved: In the United States, the benefits of the use of generative AI in education outweigh the harms.

Framework: Structural Violence

Start With Framework on Structural Violence

Burton CW, Gilpin CE, Draughon Moret J. Structural violence: A concept analysis to inform nursing science and practice. Nurs Forum. 20**21** Apr;56(2):382-388. doi: 10.1111/nuf.12535. Epub 2020 Dec 23. PMID: 33355920.
[Candace W Burton: an associate professor in nursing at the University of Nevada Las Vegas]

This analysis is meant to elucidate the concept of structural violence and its implications for nursing science and practice. **The concept of structural violence, also known as indirect violence, was first identified in the literature by peace researcher Johan Galtung. According to Galtung, structural violence broadly represents harm done to persons and groups through inequitable social, political, or economic structures. Such inequitable structures, such as systemic discrimination based on race, ethnicity, religion, gender, sexual orientation, etc. create conditions within society that directly disadvantage and oppress members of certain groups. This oppression can inflict profound physical, psychological, and socioeconomic harm on individuals, leading to disparate health outcomes.** Using techniques for developing conceptual meaning as outlined in Chinn and Kramer (2018), our analysis seeks to specify meanings and applications of structural violence for application to nursing. This analysis draws on literature from clinical, historical, and other social sciences. Databases including CINAHL, PubMed, JSTOR, and PsychInfo were explored for references to structural violence. Structural violence is readily identified in specific contexts where individuals or groups are disadvantaged by socially constructed systems, such as those of race, gender, and economic privilege. Structural violence can result in health disparities and the development of conditions that predispose individuals to health risks. Nurses must be familiar with the concept to address these issues with patients.

Prioritizing structural violence is necessary.

Davis **Ansell 17**, 2017, [David A. Ansell, Ansell is the Professor of Medicine at Rush University Medical Center and holds an M.D. from the State University of New York Upstate Medical University College of Medicine, "American Roulette, The Death Gap: How Inequality Kills", University of Chicago Press 2017, ISBN 9780226428291 | recut aanya

There are many different kinds of violence. Some are obvious: punches, attacks, gunshots, explosions. These are the kinds of interpersonal violence that we tend to hear about in the news. Other kinds of violence are intimate and emotional. But **the deadliest** and **most thoroughgoing kind of violence is woven into the fabric of American society. It exists when some groups have more access to goods, resources, and opportunities than other groups, including health and life itself. This violence delivers specific blows against particular bodies in particular neighborhoods. This unequal advantage and violence is built into the very rules that govern our society. In the absence of this violence, large numbers of Americans would be able to live fuller and longer lives. This kind of violence is called structural violence, because it is embedded in the very laws, policies, and rules that govern day-to-day life. It is the cumulative impact of laws and social and economic policies and practices that render some Americans less able to access resources and opportunities than others.** This inequity of advantage is not a result of the individual's personal abilities but is built into the systems that govern society. Often it is a product of racism, gender, and income inequality.Yet these political and economic structures have become so firmly entrenched (in habits, social relation economic arrangements, institutional practices, law, and policy) that they

have become part of the matrix of American society. The rules that govern day-to-day life were written to benefit a small elite at the expense of people like Windora and her family. These rules and structures are powerful destructive forces. The same structures that render life predictable, secure, comfortable, and pleasant for many **destroys the lives of others like Windora through suffering, poverty, ill health, and violence. These structures are neither natural nor neutral.**

Minorities are always excluded from discussions. Pratt-22 elaborates:

Ashley Pratt 22, June 2022, "Deconstructing Bias: Marginalization," National Institute of Health, https://science.nichd.nih.gov/confluence/pages/viewpage.action?pageId=24297524 accessed 3-10-2024 | aanya
[Ashley Pratt: Ashley received her Bachelor's degree in Neuroscience from Bates College, where she studied respiratory control, and then memory consolidation, as a research assistant. Ashley is currently pursuing her PhD in Neuroscience through the Brown University - NIH Graduate Partnership Program]

Today, the term marginalize is commonly used as a verb meaning "to relegate to an unimportant or powerless position within society or group." Marginalization, or to marginalize, is used to describe the casting aside of groups that are considered "other" within society. In practice, this can manifest as ignoring the needs of a specific group or failing to provide a group with the same opportunities that are available to other members of society. **Much like the notes in the blank edges of a book, marginalized groups are treated as separate from the main body of society**. The expanded use of marginalization in the medical field was first noted in an article entitled "Marginalization guiding concept for valuing diversity in nursing knowledge development" by Hall et al. It identifies vulnerable groups in the health system as those who are "often hidden, stigmatized, lacking access to services, and mistrustful of the research process" (Hall et al., 1994). Since the publication of this article, the composition of these groups has extended beyond women and members of underrepresented ethnic and racial groups. Today, examples of marginalized populations include groups that are excluded due to race, gender identity, sexual orientation, age, physical ability, or language.

Thus, Marshall-97 concludes

Catherine Marshall 97, 1997 [Catherine, professor at the University of North Carolina, Feminist Critical Policy Analysis: A perspective from post-secondary education, pg. Ix-x] |

recut aanya Policy researchers and analysts have gained and retained legitimacy by focusing on the problems and methods identified powerful people. **Those with a dierent focus are silenced, declared irrelevant, postponed, coopted, put on the back burner, assigned responsibilities with no training, budget, personnel or time, or otherwise ignored.** Policies, -- authoritative agreements among powerful people about how things should be – have been made without a feminist critical glance. These two volumes focus on those areas of silence, on the policy issues at the fringe and on the kinds of policy analysis methods, findings and recommendations that will disrupt but will also open possibilitie The two volumes identify theories and tools for dismantling and replacing the politics, theories and modes of policy analysis that built 'the master's house'. The individual chapters illustrate how and why to expand policy questions and policy analysis methods to incorporate critical and feminist lenses, demonstrating the promise of politics, analysis and policymaking that thoughtfully and thoroughly works to uncover any source of oppression, domination or marginalization and to create policies to meet the lived realities, [and] needs, aspirations and values of women and girls and others **kept on the margin**. The volumes name and develop a new field: Feminist critical Policy Analysis. The promise of this field lies in its incorporatio perspective that 'write against the grain': the feminist, critical stance, with policy analysis that includes methods for focusing on the cultural values bases of policies; deconstruction of policy documents; analysis of a policy intention and its potential effects, such as armative Action and Title IX; studies of the micropolitical, for example, the dynamics of a school board task force for sexual harassment, a tenure system's eect on women academics, or the role of girls' access to computers in the implementation of computer policies; and analyses of policies, programs and political stances that do focus on neglected needs in schooling. **Policymakers and analysts need to pause in order to recognize how issues of gender, the needs of particular groups like the urban poor, women and non-dominant nationalities are left out of education policy** analyses. In order to connect e ectively, women need to take a hard look at the structures and arenas of policy. By presenting literatures, methods and examples, these books name the field: femini critical policy analysis leap at the challenge.

The framing promotes education which is a prerequisite to all else. Two warrants.

1. Debate is an arena for the voice of the oppressed people where we can question things that are usually seen as a given.

2. The way we discuss policy shapes the way in which policies are implemented.

Without discussing structural violence, we will continue to enact violence-perpetuating policies.

Contention 1: Racism

Generative AI in education is racially biased HRC 24

"Document Viewer." Un.org, 2025, docs.un.org/en/A/HRC/56/68. Accessed 25 Feb. 2025.
[Human Rights Council: an intergovernmental body within the United Nations system made up of 47 States responsible for the promotion and protection of all human rights around the globe]

45. **Grading algorithms typically use historical grading data to evaluate student performance. Such data can be biased by historical patterns of systemic racism in educational institutions. The bias in the data will be replicated by predictive scoring algorithms for students, especially when teacher input is excluded.**69 **Grading algorithms can be hugely consequential in determining the opportunities available to students, including in relation to access to university education or employment opportunities after education. Racially biased automated decisions may therefore limit opportunities for students from marginalized racial and ethnic groups and undercut the potential of education to be a tool to disrupt systemic racism.** 46. The United Kingdom provides a cautionary example of the deployment of a grading algorithm. In 2020, Advanced Level (A-level) examinations were cancelled due to the COVID-19 pandemic. As a substitute for examination grades, teachers were asked to predict students' results. The national regulatory agency for grading then deployed an algorithm to standardize the predicted scores on the basis of each school's historical grading data. Forty per cent of students, many of whom attended schools in lower-income areas, had their scores downgraded as a result. Conversely, the algorithm upgraded a disproportionally high number of students from independent, fee-paying schools. The Government responded to the controversy by reversing the algorithm's standardization. However, the episode caused significant disruptions to university admissions processes.70

Pham 24

School, Stanford Law. "How Will AI Impact Racial Disparities in Education? | Stanford Law School." Stanford Law School, 29 June 2024, law.stanford.edu/2024/06/29/how-will-ai-impact-racial-disparities-in-education/#:~:text=AI%20algorithms%20may%20exacerbate%20racial,trained%20to%20believe%20are%20accurate. Accessed 26 Feb. 2025.
[Hoang Pham: Director of Education and Opportunity at the Stanford Center for Racial Justice at Stanford Law School, where he leads research and policy initiatives to address entrenched racial inequities in the U.S. education system and promote economic mobility.]

AI algorithms may exacerbate racial disparities in education when developers input historical data into the technology that replicate pre-existing biases that the model is trained to believe are accurate. For example, predictive analytical tools in education use data, statistical algorithms, and machine learning to help educators support students on their academic and professional journeys. These predictive analytical tools also play a role in determining the likelihood of future student success. Nevada is one of six states where every district uses Infinite Campus, a program that tracks students' attendance, behavior, and grades to support an "early-warning system" that "employs a machine-learning algorithm to assess the likelihood that each student whose data enters the system will or will not graduate." **While these tools are intended to assist educators in improving outcomes for students, predictive analytics often rate racial minorities as less likely to succeed academically. This is because race is included as a risk factor in the algorithms and treated as an indicator of success or failure based on the historical performance of students with those identities.** For example, **an analysis conducted in 2021 found that Wisconsin's Dropout Early Warning System, which uses race as a data point to predict the likelihood a student will**

graduate high school on time, generated false alarms about Black and Latino students "at a significantly greater rate than it did for their White classmates." This false alarm rate, defined as "how frequently a student [the algorithm] predicted wouldn't graduate on time actually did graduate on time," was 42% higher for Black students than White students. Instead of clarifying what extra support students need, risk scores tend to have a negative influence on how teachers perceive students and students' own beliefs about their academic potential. Universities are also using algorithms, for example, in the admissions process to determine the likelihood a student is admitted, how much financial aid they should receive, and whether they decide to enroll. Admissions algorithms use a university's admissions criteria and historical admissions data, comparing them with an applicant's transcript, essay answers, and even recorded interviews to assist an admissions officer in streamlining admissions decisions, often by sorting applicants into tiers based on their likelihood of admission. Companies such as OneOrigin, Student Select, and Transparency in Education offer algorithmic tools to universities and students that claim to improve efficiency, cut costs, increase admissions yield, and provide transparency to applicants. **However, critics argue that because AI algorithms use historical data to make predictions they are more prone to producing discriminatory outcomes. For example, AI enrollment algorithms use a college's past applicant data—including high school GPA, standardized test scores, socioeconomic status, zip code, and even how frequently applicants attended college recruitment events—to help determine levels of scholarship funding and the likelihood of enrollment for future students. Although these data inputs are race-neutral and used for a legitimate reason (i.e. predicting the likelihood a student will enroll, which helps with ensuring course availability), the AI tool can nonetheless produce disparate racial impacts. For example, because Black and Latino students have historically scored lower on the math section of the SAT than White and Asian students, the AI algorithm may allocate more scholarship funding to White and Asian students than Black and Latino students.**

IMPACT: Structural violence Bourke 24

Bourke, Mary. "Understanding Structural Violence: Its Impact on Low-Income Communities - MEDLIFE." MEDLIFE, 18 July 2024, www.medlifemovement.org/medlife-stories/global-topics/understanding-structural-violence-its-impact-on-low-income-communities/#:~:text=Structural%20violence%20manifests%20in%20stark,any%20form%20of%20community%20upliftment. Accessed 3 Mar. 2025.
[Mary Bourke: studied Digital Media and Creative Writing at Vancouver Island University and graduated with a Bachelor's Degree in 2020; passions for social justice and writing were able to meet when she started copywriting for MEDLIFE; works remotely from Canada and helps to bring marketing material from MEDLIFE to a Canadian audience]

Structural violence is a silent force, stemming from societal structures that marginalize certain populations, limiting their access to health, education, and economic opportunities. Coined by Johan Galtung and expanded by Paul Farmer, this concept **uncovers the hidden mechanisms of inequality that inflict indirect harm on individuals based on social, economic, and political disparities.** Galtung's work in "Violence, Peace, and Peace Research" (Journal of Peace Research, 1969) provides a critical foundation for understanding these invisible barriers.
Impact on Low-Income Communities
Structural violence manifests in stark realities such as inadequate healthcare, substandard living conditions, and limited educational opportunities. These conditions perpetuate a cycle of poverty and hinder any form of community upliftment. Paul Farmer's "Pathologies of Power: Health, Human Rights, and the New War on the Poor" (University of California Press, 2003) explores the intersection of these issues with human rights.

Allison Academy 21

"Allison Academy - Private Middle and High School." Allison Academy, 23 Sept. 2021, www.allisonacademy.com/students/education/higher-education/lack-of-education/. Accessed 7 Mar. 2025.
[Allison Academy: a private, accredited, non-sectarian Middle School and High School (grades 6-12)]

1. Poor health Some of the basic lessons we learn in primary school are related to taking care of one's own psychophysical health. The importance of hand washing, sexual health, necessity of regular physical activity – all this knowledge is something that stays with a person all their life, and is acquired at school. **There is a strong link between lack of education and poor health and**

hygiene. The Borgen Project research conducted in Uganda yielded staggering results: educated people in the country have 75% less chance to contract HIV/AIDS, while young people with good primary education have 50% less chance to contract the same virus. **2. Shorter life expectancy** The IMS Fiscal Monitor research showed that education can even affect a person's life expectancy. Specifically, in developed economies, the gap between men with higher education and those with secondary, or primary education ranges between four and fourteen years, and is even larger in some countries. **3. Poverty** Due to adverse life circumstances, many people lack the tools and means that would enable them to leave poverty behind. Education is precisely what provides a person with these tools and means, but in poor communities and countries, it either does not exist at all, or if it does, it is inadequate, and this is how people find themselves in the vicious circle of poverty from which they cannot free themselves. The fact is that the more educated a person is, the better their chances of a decent salary. **4. Unemployment** Unemployment is tightly linked to poverty. People who lack education, or who only finished primary school often work poorly paid jobs, or struggle to find any job whatsoever. Simply put, good jobs are reserved for qualified employees, and qualifications are primarily acquired through education. In today's age of all-present digitalization where knowledge quickly becomes outdated, and traditional jobs are slowly disappearing, education becomes even more important, representing the key factor that decides whether a person will be able to adapt to changes and find a suitable job, or will become unemployed. According to a survey conducted by OECD, 69% people with lower secondary education are employed, whereas that percentage among people with higher education is 88%. **5. Lower salary** People who lack qualifications, even when they find a job, will always have a significantly lower salary than their more educated counterparts. Less paid and less valued jobs are reserved for unqualified workers, and often such positions are in danger of being automated, which creates additional uncertainty regarding salaries and jobs for people with a lower level of education. **6. Gender inequality** Women who receive poorer education than their male counterparts are often in an adverse position. Quality education gives women independence, higher salaries and the opportunity to express their views on various social issues. Education means independence and the ability to make informed decisions on one's life, for both men and women. **7. Social isolation** Uneducated people struggle to fit in social situations, and often remain marginalized. The lack of resources generated by education prevents them from participating in numerous social activities in a productive and comprehensive way, in contrast to educated people who engage in the same activities without difficulty. **8. Illegal activities** People with lower education, the unemployed, or those who work poorly paid jobs are often forced to work hard to provide a bare existence. Hence, it is no wonder that lack of education can often lead to a life of crime, which such people often see as the shortcut or the only way out of their disadvantaged position. **9. Poor economy** Countries with educated people have stronger, better developed, and more sustainable economies. Estimates say that this trend will continue and become even more stronger in the 21st century, when due to digitalization and the changes it brings, a countries' ability to successfully adapt to the changed circumstances will directly depend on their educated population. In other words, countries with an educated population will have more productive workers, innovative scientists and will be able to come up with more creative solutions than countries with poorly developed economic and education systems. As a consequence, workers in such countries will receive higher salaries, and these countries will be more desirable places to live. **10. Impossibility of (adequate) participation in political and social life** Without a comprehensive education in both sciences and humanities, a person will lack the knowledge and tools that enable them to make intelligent and meaningful political decisions. Who to vote for in the elections, which initiatives to support, who and what to trust, all these are things one must decide about with care and commitment. It is education that enables open dialogue, constructive exchange of opinions, and joint search for the best solution for society as a whole. Therefore, it helps the individual not to fall prey to political marketing, but to base their decisions on their own thoughts and views.

Contention 2: Propaganda

Generative AI is used to spread propaganda Ryan-Mosley 23

Tate Ryan-Mosley. "How Generative AI Is Boosting the Spread of Disinformation and Propaganda." MIT Technology Review, 4 Oct. 2023, www.technologyreview.com/2023/10/04/1080801/generative-ai-boosting-disinformation-and-propaganda-freedom-house/. Accessed 25 Feb. 2025.
[Tate Ryan-Mosley: the senior tech policy reporter for MIT Technology Review; focus on the impact of new technologies on political systems, human rights and the health of global democracies; also worked on many of our podcasts and data journalism projects; before a reporter for Tech Review, a researcher here working on special newsroom projects; prior to journalism, a consultant on emerging tech strategy for large companies; in 2012, a fellow at the Kellogg Institute for International Studies, specializing in conflict and post-war development.]

As generative AI tools grow more sophisticated, political actors are continuing to deploy the technology to amplify disinformation. Venezuelan state media outlets, for example, spread pro-government messages through AI-generated videos of news anchors from a nonexistent international English-language channel; they were produced by Synthesia, a company that produces custom deepfakes. And in the United States, AI-manipulated videos and images of political leaders have made the rounds on social media. Examples include a video that depicted President Biden making transphobic comments and an image of Donald Trump hugging Anthony Fauci. In addition to generative AI tools, governments persisted with older tactics, like using a combination of human and bot campaigns to manipulate online discussions. **At least 47 governments deployed commentators to spread propaganda in 2023—double the number a decade ago. And though these developments are not necessarily surprising, Funk says one of the most interesting findings is that the widespread accessibility of generative AI can undermine trust in verifiable facts. As AI-generated content on the internet becomes normalized, "it's going to allow for political actors to cast doubt about reliable information," says Funk. It's a phenomenon known as "liar's dividend," in which wariness of fabrication makes people more skeptical of true information, particularly in times of crisis or political conflict when false information can run rampant.** For example, in April 2023, leaked recordings of Palanivel Thiagarajan, a prominent Indian official, sparked controversy after they showed the politician disparaging fellow party members. And while Thiagarajan denounced the audio clips as machine generated, independent researchers determined that at least one of the recordings was authentic.

Generative AI does this easily DW 24

Endert, Julius. "Generative AI Is the Ultimate Disinformation Amplifier." Deutsche Welle, 17 Mar. 2024, akademie.dw.com/en/generative-ai-is-the-ultimate-disinformation-amplifier/a-68593890. Accessed 25 Feb. 2025.
[DW: a German public, state-owned international broadcaster funded by the German federal tax budget; available in 32 languages; satellite television service consists of channels in English, Spanish, and Arabic; work of DW is regulated by the Deutsche Welle Act, stating that content is intended to be independent of government influence; a member of the European Broadcasting Union (EBU)]

With GAI, the volume of disinformation potentially becomes infinite rendering fact checking an insufficient tool. As the marginal costs of the production of disinformation fall towards zero, the costs of dissemination are also nearly zero thanks to social media. On top of this, individuals can now use user-friendly apps to easily and quickly generate sophisticated and convincing GAI content such as deep fake videos and voice clones – content that previously needed entire teams of tech-savvy individuals to produce. This democratization of deep fake technology lowers the barrier of entry for creating and disseminating false narratives and misleading content online. **Malign actors can easily leverage chatbots to spread falsehood across the internet at record speed, regardless of the language**. Text-to-text chatbots, such as ChatGPT or Gemini, or image generators, such as Midjourney, DALL-E or Stable Diffusion, **can be used to create massive amounts of text as well as highly realistic fake audio, images and videos to spread misinformation and disinformation.** This can lead to false narratives, country-specific misinformation, manipulation of public opinion and even harm to individuals or organizations. **In a 2023 study, researchers at the University of Zurich in Switzerland found that generative AI can produce accurate information that is easier to understand, but it can also produce more compelling disinformation. Participants also failed to**

distinguish between posts on X, formerly Twitter, written by GPT-3 and written by real people. GAI applications can be combined to automate the whole process of content production, distribution and amplification. Fully synthetic visual material can be produced from a text prompt, and websites can be programmed automatically.

This affects governments DW 24

Endert, Julius. “Generative AI Is the Ultimate Disinformation Amplifier.” Deutsche Welle, 17 Mar. 2024, akademie.dw.com/en/generative-ai-is-the-ultimate-disinformation-amplifier/a-68593890. Accessed 26 Feb. 2025.
[DW: a German public, state-owned international broadcaster funded by the German federal tax budget; available in 32 languages; satellite television service consists of channels in English, Spanish, and Arabic; work of DW is regulated by the Deutsche Welle Act, stating that content is intended to be independent of government influence; a member of the European Broadcasting Union (EBU)]

ChatGPT reproduces harmful narratives propagated by authoritarian regimes when given hypothetical prompts, finds research by Democracy Reporting International. In one case study, researchers were able to prompt ChatGPT to emulate a reporter from Russia Today, a state-controlled news organization. **By doing this, they were able to get ChatGPT to circumvent its safeguards and produce problematic outputs such as advocating for the "need to de-nazify Ukraine," which is a common Russian narrative used to justify their 2022 invasion of Ukraine.** The research demonstrated the relative ease with which AI chatbots can be co-opted by malicious actors to produce misleading or false information regardless of the language used. As such, generative AI models developed in authoritarian countries — with possible state involvement — have implications that extend beyond the confines of these states. **"The world's most technically advanced authoritarian governments have responded to innovations in AI chatbot technology, attempting to ensure that the applications comply with or strengthen their censorship systems. Legal frameworks in at least 21 countries mandate or incentivize digital platforms to deploy machine learning to remove disfavored political, social, and religious speech," Democracy Reporting International finds.** "With user-friendly online tools powered by these models, they are becoming increasingly accessible globally. This ensures that the biases and propaganda originating from these models' home countries will proliferate far beyond their borders."
Problem 4: GAI could negatively impact elections
Elections and generative AI have a special connection. This is because the actors involved in elections always pursue specific goals: to either win power for their allies or themselves or to influence a foreign country’s political landscape. **GAI enables such actors to create "unreality," and it's becoming a weapon in information warfare and influence operations. Such campaigns are mostly coordinated, concerted, evaluated, measured and funded by political or foreign actors.** "These actors see information as a theater of war," says Carl Miller, the founder of the UK-based Centre for the Analysis of Social Media, in a recent podcast. **Research by the International Center for Journalists found election disinformation had common and cyclical patterns regardless of the country they examined.** For example, the narrative that votes were cast in the name of deceased people or disinformation about what documents were needed to vote were found in a range of nations. **Generative AI is a perfect tool for creating such campaigns. In January 2024, the attorney general in the US state of New Hampshire said it was investigating an apparent robocall that used artificial intelligence to mimic US President Joe Biden's voice and discourage people from voting during the state's primary election.**

Csernatoni 24

“Can Democracy Survive the Disruptive Power of AI?” Carnegie Endowment for International Peace, 2024, carnegieendowment.org/research/2024/12/can-democracy-survive-the-disruptive-power-of-ai?lang=en. Accessed 26 Feb. 2025.
[Raluca Csernatoni: a professor on European Security and Defence with the Brussels School of Governance (BSoG) and its Centre for Security, Diplomacy and Strategy (CSDS), at Vrije Universiteit Brussel (VUB), Belgium]

AI advancements are occurring at such a scale and speed that it is almost impossible for any government, company, or individual to predict future trajectories or how they will reshape societies. Since 2022, more than 15 billion images have been created using text-to-image algorithms, and with the launch of OpenAI’s DALL-E 2—an AI system that can create realistic images and art from a description in natural language—people are generating an average of 34 million images per day. **Generative AI models played a**

role in the 2024 U.S. presidential race, with AI-generated fake images and deepfakes flooding social media platforms. Deepfakes are synthetic media in which AI techniques replace a person in an existing image or video with someone else's likeness or generate a brand-new image of a person. **Deceptive pictures, videos, and audio are rapidly proliferating because of the rise and misuse of generative AI tools and fake news websites. AI-generated synthetic content has permeated the U.S. political sphere, where it is often shared by high-profile figures like U.S. President-Elect Donald Trump and his allies, who repeatedly promote AI-created memes and deepfakes.** A case in point: **Trump reposted an AI-generated fake image of singer Taylor Swift endorsing his election campaign, which she never did. Democrats also posted AI-made fake photos of Trump being arrested. Such fakes could result in wide-reaching and immensely damaging instances of misinformation and disinformation.** Meanwhile, deepfake audio clips of British Prime Minister Keir Starmer and Slovakia's opposition head, Michal Šimečka, ignited social media controversies when they spread rapidly before fact-checkers exposed them as fabrications. The destructive power of deepfakes also hit home in Türkiye when a presidential candidate withdrew from the May 2023 election after explicit AI-generated videos went viral. In Argentina's October 2023 presidential election, both leading candidates deployed deepfakes by creating campaign posters and materials that mocked their opponents—tactics that escalated into full-blown AI memetic warfare to sway voters. Thus, the impact of generative AI models is likely to depend on how they are used by political opponents and featured on social media—that is, how they are introduced into an already complex information environment, where many variables inform the way AI-generated content will be received. While some dismiss this content as another form of political satire, the **relentless barrage of AI-generated misinformation and disinformation will likely increase voter confusion, create false perceptions of candidates, and fuel cynicism toward the entire electoral process. Female politicians, especially, face a much greater threat of deepfakes than their male counterparts because of gender disinformation, sexualized targeting, and societal biases, which amplify reputational harm, online harassment, and the emotional toll, eroding public trust in women's leadership.**

IMPACT: Authoritarianism Dreiling 24

"Editors' Introduction: Truth-Telling and Propaganda." AAUP, 24 Oct. 2024, www.aaup.org/JAF15/truth-telling-propaganda. Accessed 7 Mar. 2025. [Michael C. Dreiling: professor of sociology at the University of Oregon, where he specializes in political and environmental sociology; he served two terms as president of AAUP Oregon and three terms as the inaugural president of United Academics at the University of Oregon from 2013 to 2018; from 2014 to 2020, he worked alongside allies and faculty activists to help unionize three additional bargaining units in Oregon]

Compounding the impacts of illiberal, authoritarian movements that target higher education and academic freedom, social media platforms and conservative mass media expand the reach of misinformation and propaganda. **Artificial intelligence (AI) introduces news to the arbiters and institutions that fortify informed speech in the public sphere. Higher education is clearly at the center of these societal rifts between truth-telling and propaganda, and faculty and students are increasingly affected by malevolent interests seeking to blur the distinction. As disinformation and misinformation are routinely deployed by authoritarian actors on subnational, national, and international stages, these propagandistic initiatives foment hostilities and destabilize public spheres in more open and inclusive societies while quelling inquiry and dissent in authoritarian spaces. Authoritarian attacks on democracy and public truth-telling run parallel to attacks on academic freedom and increasingly deploy new technologies toward these ends. New media technologies such as deepfakes deliver contemporary propaganda that masquerades as informed speech to manufacture, suppress, or deny factual, inclusive, and validated claims.** The ubiquity of these technologies—once thought to have liberatory goals—poses key questions to the critical methods and discourses of academic knowledge production. Who will train future generations to distinguish legitimate truth-telling from fake news, alternative facts, and the vast streams of misinformation and disinformation? **Higher education is a clearinghouse for adjudicating truth claims, and academic freedom is the ethical commitment that ensures its integrity. From the peddling of conspiracy theories to the approval of far-right, nonacademic content for public school curricula, the rift is widening between propagandistic, faith-based assertions or partisan opinions and informed, well-reasoned, and externally vetted truth claims.** Naming this rift and identifying the propagandists who put power and ideology over sincerity and authenticity is a necessary act in the history of truth-telling—and a defense against threats to a multiethnic democracy.

Authoritarian governments use structural violence Levin 21

Borsuk, Imren, and Paul T. Levin. "Social Coexistence and Violence during Turkey's Authoritarian Transition." Southeast European and Black Sea Studies, vol. 21, no. 2, Apr. 2021, pp. 175–87, https://doi.org/10.1080/14683857.2021.1909292.
[Paul T. Levin: Director of the Stockholm University Institute for Turkish Studies; work focuses on Turkish politics and international relations, Turkey-EU relations, foreign aid, nationalism, collective identity, governance, democracy, and authoritarianism]

The complexity of these authoritarian practices call attention not only to direct forms of violence, e.g. repression, terrorism, torture, or crimes, but also to indirect forms of violence such as structural, symbolic, and everyday violence to understand the changing dynamics of social coexistence and conflict during authoritarian transitions (for an extensive analysis, see Scheper-Hughes and Bourgois Citation2004). **The erosion of rule of law and the decline of democratic institutions can have a dramatic impact on structural violence that is embedded in power relations and structural inequalities deteriorating the rights of disadvantaged groups like ethnic and religious minorities, sexual minorities, women, migrants, etc. Polarizing and securitizing discourses that consistently create majorities and minorities in society reify social differences and aggravate symbolic violence that is anchored into the normative order of society.** Conversely, refusal to recognize groups and their grievances and attempts to silence minorities may amount to another form of structural violence as discrimination and inequalities in societies go unaddressed. **There are also everyday forms of violence, such as interpersonal violence, domestic violence, or vigilantism, that are intertwined with broader relations of patronage, conflict, and cooptation in society but not considered as violent conflict per se, falling short of what at least most large-N studies of civil war or ethnic conflict examine.** In this special issue, we propose to consider violent conflict as a phenomenon that occurs along a broad spectrum ranging from small to large scale violence, and from indirect to direct forms of violence. Not limiting ourselves to massive outbreaks of violence between or directed at certain groups allows the contributions in this special issue to identify a broader range of social, political, economic, and psychological consequences of democratic breakdown and societal violence. Doing so, we hope, also allows for a richer assessment of the potential for sustainable peacebuilding and social reconciliation processes in the future.

Rebuttals:

Answer: Ai weakens skills

Fan, Leanne. "AI Reduces Critical Thinking." *The Nexus*, 2015, wvnexus.org/opinions/ai-reduces-critical-thinking/. Accessed 19 Feb. 2025.

A study by Dr. Ahmed, assistant professor in engineering management collected survey data from 285 students and found that 68.9% of laziness and 27.7% of the loss of decision-making skills were the result of artificial intelligence use. A sampling technique was used that gathered survey data from students who either used or didn't use AI. Most students used AI for collecting and analyzing data, answering questions, and task automation. The results were found to be convergently valid and reliable, with multiple pieces of evidence supporting the fact that using AI negatively affects the development of critical thinking skills.

Turn: GenAI usage kills critical thinking

Fonkam et al. 24 [Mathias Fonkam, PhD in computer science and Associate Teaching Professor @ Penn State University with over 20 years of experience in computer science education, xx-xx-2024, Risks of AI-Assisted Learning on Student Critical Thinking: A Case Study of Albania, International Journal of Risk and Contingency Management, https://www.igi-global.com/article/risks-of-ai-assisted-learning-on-student-critical-thinking/350185] BZ

INTRODUCTION

Artificial Intelligence (AI) has increasingly become a transformative force in the education sector, offering unprecedented opportunities to enhance learning experiences and outcomes (Bates et al., 2020; Çela et al., 2024). AI-assisted learning systems promise to revolutionize traditional educational paradigms including offering personalized learning pathways and real-time feedback mechanisms (Bates et al., 2020). However, alongside these advancements, there are growing concerns about the potential adverse effects of AI on critical cognitive skills, particularly critical thinking (Essel et al., 2024; Iqbal & Iqbal, 2024; Parsakia, 2023). This study examines these concerns through a focused examination of AI-assisted learning's impact on student critical thinking within the context of Albania's educational landscape. **Critical thinking is** a fundamental skill, essential for problem-solving, decision-making, and the ability to analyze and synthesize information effectively (Dwyer et al., 2014). Critical thinking is vital for students to develop these skills to navigate an increasingly complex and information-rich world (Kitsantas et al., 2019). However, there is a growing body of literature suggesting that AI-assisted learning, while beneficial in many aspects, may inadvertently **undermine the development of critical thinking skills**. This issue arises from the tendency of AI systems to provide readily available solutions and information, potentially discouraging students from engaging deeply with the learning material and developing their analytical abilities.

Education **is** a fundamental pillar of society, shap**ing** the actions of new gen**erations** and preparing them to confront future challenges. An educated populace facilitates national development and accelerates improvements across various sectors. In a dynamic society, the acquisition of new knowledge and tools is essential, particularly in the field of education. The integration of AI within the educational system has revolutionized numerous aspects of teaching and learning. AI has introduced novel methods for enhancing personalized learning, improving assessments, and reducing administrative burdens for educators (Ayala-Pazmiño, 2023). The adoption of AI tools in both preuniversity and university education is inevitable, as they provide efficient means for students to meet assignment deadlines and enable professors to generate tailored tasks that address specific student needs. Ayala-Pazmiño (2023) highlights the efficacy of AI in analyzing student data, thereby enabling the customization of learning experiences to individual requirements. The implementation of AI in education promises a more personalized and responsive approach to teaching, ultimately benefiting the educational process.

Despite the numerous benefits associated with AI in education, many educators recognize the potential risks related to data privacy and security. While students may not be fully aware of these risks, educators can discern the potential dangers associated with AI, particularly concerning the automated generation of outputs that may lack appropriate context or accuracy (Cardona, Rodríguez, & Ishmael, 2023). Consequently, AI tools are seen as critical instruments for redefining classroom dynamics and enhancing student engagement in the teaching-learning process (Pavlenko & Syzenko, 2024). However, the extent to which AI tools represent an advantage or a drawback for educational systems remains unclear. Instructors and administrators grapple with determining whether the use of AI tools by students in their assignments might undermine their problem-solving skills and reduce their capacity to independently address complex issues. Conversely, students, who are the primary users of these tools, often perceive AI as significantly aiding their comprehension of complex concepts, irrespective of their field of study. This study aims to investigate the impact of AI tools on students' problem-solving skills and to assess the extent to which these tools assist students in understanding and completing assignments. Through this study, a comprehensive analysis of the benefits and drawbacks of AI usage in education, with a focus on its implications for student learning outcomes and problem-solving abilities.

This study employs a quantitative methodology to explore the risks associated with AI-assisted learning on critical thinking. A survey of 53 students was conducted in an educational institution in Albania to gather data on their experiences and perceptions regarding AI-assisted learning and its impact on their critical thinking skills. This approach allowed us to systematically measure and analyze the influence of AI tools on the cognitive development of students. The Albanian educational system presents a unique context for this investigation. As a country in the midst of educational reforms (Çela, 2022; Fetahu & Cela, 2022) and technological integration, Albania offers a valuable case study to examine the broader implications of AI in education. This research seeks to identify specific challenges and opportunities within this context, contributing to an understanding of AI's role in shaping critical thinking skills. Through this study, the complex relationship between AI-assisted learning and student critical thinking was examined, providing insights that can inform educators, policymakers, and technology developers. Ultimately, the goal is to ensure that the integration of AI in education enhances rather than hinders the development of essential cognitive skills, promoting a generation of learners who are both technologically adept and critically proficient.

BACKGROUND

In recent years, society has encountered significant challenges in adapting to continuous technological advancements, largely due to the **absence of comprehensive guidelines** for their implementation. The **educational** sector, inherently linked to the development of future generations, is profoundly affected by these changes. In Albania, legislative efforts have aimed to address these challenges (Fetahu & Cela, 2022). In 2012, Albania introduced a new law on the pre-university education system, designed to enhance the teaching-learning process by aligning it with the needs of students and the broader society (Fetahu & Cela, 2022). This was followed by a 2015 law on higher education, which intended to improve students' professional and soft skills (Çela, 2022). Since the enactment of these laws, numerous bylaws have been implemented annually to facilitate their application. Notably, the pre-university education law emphasizes the integration of technological tools into curricula from an early age. While this aims to familiarize students with technology, there is a growing concern that the misuse of these tools for tasks, assignments, or projects may erode students' critical thinking skills. Critical thinking is essential in higher education, where students must integrate theoretical and practical knowledge to succeed in their careers. Therefore, interventions are necessary to ensure students use technological tools appropriately without compromising their foundational knowledge and critical thinking development.

In response to these concerns, Albania has initiated various programs to enhance technological skills in pre-university education. The "21st Century Schools" program, a partnership between the UK government and Albanian educational institutions, aims to boost the critical thinking and problem-solving skills of students aged 10-15 through programming (Çela et al., 2024). This program provides schools with micro-bit devices, which are small, programmable computers that enable students to solve problems innovatively and engagingly. Similarly, the Albanian-American Development Foundation (AADF) has funded programs to enhance students' programming and technology skills (Fetahu & Cela, 2022). The vision of the Ministry of Education and educational institutions emphasizes that learning to code in pre-university education prepares students for a rapidly evolving technological world (Fetahu &

Cela, 2022). While programming skills are directly applicable in many professions and advantageous in numerous others, an exclusive focus on programming can limit students' career paths, directing them towards specific skill sets. This is evident in the increasing number of students opting to study computer science or software engineering in university, driven by their early exposure to these fields.

Despite the benefits of technological tools in education, their improper use can lead to a decline in critical thinking skills in other areas. The rapid introduction of new technological tools often lacks accompanying guidelines, as seen with the implementation of AI. Though AI has the potential to offer significant educational benefits, its misuse can adversely affect the development of critical thinking skills. This study aims to explore the impact of AI tools on students' problem-solving abilities and assess their effectiveness in helping students understand and complete assignments. By providing a comprehensive analysis of the advantages and drawbacks of AI in education, this research seeks to inform strategies for integrating technology into the educational system without undermining essential cognitive skills.

REVIEW OF LITERATURE

AI, a subset of computer science, focuses on understanding the nature of intelligence and creating intelligent machines that simulate, extend, and enhance human capabilities (Huang & Qiao, 2024; Saheed et al., 2021). The benefits of technology are undeniable however, its extensive and unguided use has introduced significant challenges in the teaching and learning process, particularly in nontechnical study programs. Additionally, the pervasive use of AI tools has been linked to the erosion of students' soft skills, including critical thinking. One of the most prominent AI tools used by students is ChatGPT. Given the educational system's experiences with technological tools, it is acknowledged that these tools have facilitated learning processes and aligned closely with student and societal needs. However, their impact on critical thinking skills has been problematic, often resulting in student complacency and reduced motivation to engage deeply with assignments.

Machine learning systems, such as ChatGPT, can be particularly effective for problems where the rules for generating outcomes are unknown and must be inferred from data. Conversely, rule-based AI approaches manipulate data based on predefined logical propositions, which can be advantageous for problems where the rules are known but their application is cumbersome (Gillani et al., 2023). ChatGPT allows students to pose questions and receive text-based answers, simulating human-like participation in discussions and task completion. The model's reliability stems from its training to recognize patterns and relationships in data without explicit human guidance. However, reliance on AI-generated content can lead to superficial learning, where students memorize information for graduation rather than understanding it for future application. Moreover, ChatGPT's capacity to present preexisting biases or forms of discrimination can discourage students from developing **their own judgments** or statements, leading to biased learning experiences. Well-explained AI responses may appear more credible to students, causing them to neglect their ideas, resulting in reduced critical thinking and increased laziness.

Pickell and Doak (2023) argue that rather than banning AI tools like ChatGPT, educators should guide students in using them beneficially. This involves leveraging AI to enhance critical thinking by analyzing real-life implications, ethical usage (Huang & Qiao, 2024), and improving assignments without taking AI-generated information at face value. Educators must provide well-structured guidelines to help students achieve educational goals through AI use. AI education aims to develop learners' mindsets and skills concerning AI, facilitating its understanding and application (Huang & Qiao, 2024). Practical training and manuals from technology experts are essential to prevent the decline of critical thinking skills among students. Such guidelines will help students grasp AI principles, experience AI's achievements, and implement AI applications effectively (Xiaodong & Chengche, 2022). By understanding AI's influence, educators can adapt their curricula and teaching methods to remain relevant in an AI-driven future (Vashista et al., 2023). Properly informed students and instructors can use ChatGPT to select appropriate information, adapt it to given instructions, provide reasonable arguments, and define limitations, thus enhancing critical thinking rather than diminishing it. Pusey-Reid and Ciesielski (2024) emphasize that AI usage in education enables the creation of complex and engaging simulations, providing students with immersive and interactive learning experiences. Interactive activities, such as writing responses to case scenarios and critically evaluating AI-generated outputs, promote critical thinking and enhance engagement and communication skills.

Another significant advantage of AI is its ability to aid in comprehending complex concepts (Vajjhala et al., 2021). When students use AI tools to explore study content and answer high-level cognitive questions, they provide rationales for their responses, deepening their understanding. It is crucial to teach students that AI is a tool to supplement, not replace, the in-depth study required for mastering essential concepts. Faculty members can also use AI to summarize class content and create accessible materials, promoting equitable access to education. Pavlenko and Syzenko (2024) note that the frequency of ChatGPT usage varies across disciplines, with higher usage among Information Technology (IT), Business, and Engineering students. These students rely on ChatGPT for information retrieval, brainstorming ideas, and improving grammar and punctuation. Ramirez and Esparrell (2024) highlight that AI tools can personalize learning by identifying student needs and tracking their progress, thereby developing problem-solving skills rather than merely generating information. Holmes and Tuomi (2022) believe that AI tools, combined with other technologies, can help create adaptive learning experiences tailored to individual student needs. This interaction enables students to identify and select appropriate information, thereby enhancing their learning experience. **The i**mpact of AI on education is significant and **will c**ontinue to grow (Alshahrani et al., 2024). Clear objectives and specific usage guidelines are essential to ensure that AI facilitates the development of problem-solving skills and critical thinking in students.

AI has become an integral part of modern education, influencing teaching methodologies and learning outcomes. AI tools, such as intelligent tutoring systems, adaptive learning platforms, and automated feedback systems, have been credited with enhancing personalized learning experiences and improving academic performance. Studies have demonstrated that AI can provide customized instruction tailored to individual learning needs, allowing students to progress at their own pace and receive immediate feedback on their performance (Holmes et al., 2019). The development of critical thinking skills is crucial for students to navigate the complexities of the modern world. Several researchers have explored the relationship between AI-assisted learning and critical thinking development. AI-supported learning environments could promote critical thinking by engaging students in problem-solving activities and providing them with opportunities to reflect on their learning processes (Cope et al., 2021). However, there are concerns that AI tools might inadvertently hinder the development of critical thinking. Selwyn (2019) argues that the convenience and efficiency **of AI** systems might lead to **passive** learning, where students rely **heavily** on AI for solutions rather than actively engaging in critical analysis. This perspective is supported by **empirical studies**, such as that of Ouyang et al. (2022), which **suggest** that while **AI** tools can enhance learning efficiency, they may also reduce opportunities for deep **cognitive engagement**.

The extent to which students benefit from AI-assisted learning may depend on their prior exposure to AI tools (Miller, 2023). Prior exposure can familiarize students with the functionalities and potentials of AI, enabling them to use these tools more effectively in their learning processes. Students with prior experience using AI tools are more adept at integrating these technologies into their learning strategies, resulting in better academic performance and skill development (Darvishi et al., 2024). Furthermore, prior exposure to AI can build a foundational understanding of how AI operates, encouraging students to engage more critically with AI-generated content. Students who had previous experience with AI tools demonstrated higher levels of critical thinking and problemsolving skills in AI-supported learning environments compared to those without such experience (Allen and Jevons, 2023; Che, Strang, & Vajjhala, 2021). Educational background plays a significant role in shaping students' readiness to utilize AI tools effectively (Ma & Lei, 2024). Students who are introduced to AI concepts and tools before entering university are likely to develop a more profound understanding of AI's capabilities and limitations (Borger et al., 2023). This early exposure can equip them with the skills needed to critically evaluate AI-generated information and apply it meaningfully in their academic pursuits. Drawing from the existing literature, it is evident that prior exposure to AI tools can influence the development of critical thinking skills. Students who are familiar with AI technologies before entering university are better positioned to leverage these tools for cognitive development. This leads to the formulation of the following hypothesis: Hypothesis One: Students with prior exposure to AI tools (through school courses, online courses, or self-learning) before university show a more significant improvement in critical thinking skills than those without prior exposure. The frequency of AI tool usage varies among students, ranging from daily interactions to occasional use (Almaiah et al., 2022). This frequency can impact the effectiveness and perceived benefits of these tools. Research indicates that regular interaction with AI tools can lead to better academic outcomes by continuously reinforcing learning and adapting to students' evolving needs (Srinivasa et al., 2022). Conversely, sporadic use may limit the potential benefits that AI tools offer, as students may not fully leverage the adaptive and personalized features of these technologies. Academic performance is a critical measure of the effectiveness of educational interventions, including AI tools (Owan et al., 2023). Studies have shown that consistent use of AI tools can lead to significant improvements in academic performance. The adaptability of AI tools ensures that students receive targeted instruction that addresses their individual learning gaps. AI-powered platforms could dynamically adjust the difficulty of tasks based on students' performance, thereby promoting a more effective learning environment (Holmes et al., 2019). This adaptability is particularly beneficial for students who engage with these tools regularly, as it ensures that their learning experiences are always aligned with their current proficiency levels. Assignment efficiency refers to the ability of students to complete their assignments accurately and within a reasonable timeframe. The use of AI tools has been linked to enhanced assignment efficiency due to features such as automated feedback, time management aids, and resource recommendations (Selwyn, 2019). Regular use of these tools allows students to streamline their workflow, reduce the time spent on repetitive tasks, and focus more on critical thinking and problem-solving activities. This immediate feedback loop not only enhances learning but also improves the efficiency with which students complete their assignments. Students' perceptions of the effectiveness of AI tools are crucial in determining their willingness to use these technologies consistently (Albayati, 2024; Bernabei et al., 2023). Positive perceptions are often linked to the perceived improvements in academic performance and assignment efficiency. The existing literature suggests a strong relationship between the frequency of AI tool usage and various educational outcomes, including academic performance and assignment efficiency. Students who engage with AI tools regularly tend to perform better academically and complete assignments more efficiently (Chen et al., 2023). This leads to the formulation of the following hypothesis: Hypothesis Two: There is a positive correlation between the frequency of AI tool usage (daily, weekly, monthly) and students' perceptions of academic performance and assignment efficiency. Some researchers argue that AI tools can enhance problem-solving skills by providing students with challenging tasks and immediate feedback (Pervaiz Iqbal et al., 2021). However, others caution that excessive reliance on AI for assignments may undermine the development of these skills (Al-Zahrani, 2024; Vajjhala & Strang, 2017). This concern is based on the observation that AI tools often provide readily available solutions, which can lead students to depend on these tools rather than engage in the critical thinking necessary to solve complex problems independently (Selwyn, 2019). The dependency on AI tools for completing assignments can have significant implications for students' cognitive development. While AI tools can increase efficiency and accuracy in completing tasks, they may also reduce the cognitive effort required from students (Almaiah et al., 2022). This reduction in cognitive engagement can result in a superficial understanding of the material and hinder the development of deeper problem-solving skills. Furthermore, students who rely heavily on AI tools may become passive learners, as they may not actively seek out solutions or develop the perseverance needed to tackle challenging problems (Shaw et al., 2022). This passive learning behavior can be detrimental in the long term, as it may impair students' ability to approach new and complex problems without the aid of AI. Drawing from the existing literature, it is evident that the relationship between AI tool usage and problem-solving skills is complex. While AI tools offer significant benefits, excessive reliance on them for assignments may negatively impact students' ability to solve complex problems independently. This leads to the formulation of the following hypothesis: Hypothesis Three: Reliance on AI tools for assignments negatively impacts students' problem-solving skills, reducing their ability to solve complex problems independently METHODOLOGY This study employed a quantitative research design to investigate the influence of AI tools on students' critical thinking skills, academic performance, and problem-solving abilities at a selected non-public university in Albania. The research framework utilized a survey-based approach, gathering data from university students to assess their perceptions and experiences with AI-assisted learning. The study aimed to test three specific hypotheses through statistical analysis of survey responses. The target population comprised university students in Albania, encompassing various disciplines and academic levels, including both undergraduate and graduate programs. The sample was designed to ensure diversity by including students with varying degrees of exposure to AI tools. A sample size of 53 students was selected to balance feasibility and statistical power, enabling rigorous analysis of inter-variable relationships. The study employed a stratified random sampling technique, stratifying the population based on major/field of study, academic year, and prior exposure to AI tools. Random sampling within each stratum ensured a representative sample, facilitating robust comparisons across different student groups. Data was collected via a structured questionnaire distributed through Google Forms. The survey comprised three sections, demographic information, previous exposure to AI tools, and AI tools usage and impact. Demographic data included the data on age group, major/field of study, and year of study. The questions on previous exposure to AI tools included gathered information on prior exposure to AI tools before university and the frequency of AI tool usage for academic purposes. The questions on AI Tools Usage and Impact addressed the purposes of AI tool usage, its impact on academic performance, critical thinking skills, problem-solving abilities, and overall perceptions of AI tools in education. The independent variables in this study were the prior exposure to AI tools (binary: yes/ no) and frequency of AI tool usage (daily, weekly, monthly). The dependent variables included the improvement in critical thinking skills, perception of academic performance and assignment efficiency, reduction in problem-solving skills, and belief in AI tools aiding understanding of complex concepts. The study compiled to ethical standards for research involving human subjects and informed consent was obtained from all participants, ensuring confidentiality and anonymity. Participants were informed about the purpose of the study, the voluntary nature of participation, and the measures taken to protect their data. The study acknowledges potential limitations, including the sample size, self-reported nature of the survey data, and the specific context of university students in Albania, which may affect the generalizability of the findings as data was collected from one single non-public university in Albania. RESULTS AND DISCUSSION The study surveyed a diverse group of students from various educational backgrounds to understand their experiences and perceptions of AI-assisted learning. The demographic data collected provides valuable insights into the respondents' profiles, which is crucial for contextualizing the findings. As shown in Table 1, most respondents fall within the 19-22 age group, accounting for 49 of the 53 participants. This predominance is expected given that the survey targeted were university students. Smaller numbers were observed in the 23-27 age group (2 respondents) and 28-32 age group (1 respondent), with one respondent in the 33 and above category. This age distribution highlights that the insights primarily reflect the experiences of younger students who are more likely to be engaged with current educational technologies. As shown in Table 2, the respondents' fields of study varied, with Software Engineering being the most common major, represented by 20 students. Computer Science followed with 14 students, and Business was the third most common with 7 students. Other fields such as Architecture, Business Informatics, Interior Design, Graphic Design, and Social Sciences were less represented. This distribution indicates a significant interest in technical and business-related fields among the respondents, which may influence their familiarity and comfort with AI tools. Most participants were first-year students, comprising 40 out of the 53 respondents. This is significant as first-year students might be experiencing AI tools in an academic setting for the first time. The remaining students were in their second year (9 students), third year (7 students), or were graduate students (1 student). This year-of-study distribution suggests that most insights come from students who are relatively new to university-level education and its associated technological tools. When asked about their previous exposure to AI tools before university, responses varied. As shown in Table 3, a significant number of students (25) had explored AI through personal interest and self-learning. Sixteen students reported no prior exposure to AI tools, while nine students had used AI tools through school courses and three through online courses. This variation in prior exposure is essential as it can affect how students perceive and utilize AI tools in their current academic activities. These demographic insights provide a foundation for understanding the context in which students interact with AI tools. The predominance of younger, first-year students from technical and business fields suggests a high level of adaptability and potential enthusiasm for integrating AI into their learning processes. However, the varying levels of previous exposure to AI indicate that while some students may be adept at leveraging these tools, others may need additional support and training to use them effectively. This background sets the stage for analyzing the impact of AI-assisted learning on critical thinking and problem-solving skills among university students. The interpretation as shown in Table 4 shows that students with prior exposure to AI tools have higher mean problem-solving skills score 3.216 compared to those with no prior exposure 2.688. The t-statistic for this comparison is -1.277, and the p-value is 0.208, which is greater than the 0.05 significance level. The p-value of 0.208 indicates that the difference in problem-solving skills between the two groups is not statistically significant. Mann–Whitney U test and Cohen's d were also calculated. Mann–Whitney U test is suitable for the comparison of differences between two independent groups when the dependent variable is either ordinal or continuous, but not normally distributed (Kishore & Jaswal, 2022). Cohen's d is a measure of effect size that can be used to indicate the standardized difference between two means helping to understand the magnitude of the difference, even if the p-value is not significant (Ivarsson et al., 2013). The p-value of 0.172 is greater than 0.05, indicating that there is no statistically significant difference in problem-solving skills between students with and without prior exposure to AI tools. The effect size is 0.390, which indicates a small to medium effect size. The negative value suggests that students with no prior exposure to AI tools have slightly lower problem-solving skills compared to those with prior exposure, although this difference is not statistically significant. The results of the Mann-Whitney U test as shown in Table-5 support the findings from the two-sample t-test, indicating that there is no significant difference in problem-solving skills between students with and without prior exposure to AI tools. Cohen's d provides a measure of the effect size, suggesting that the difference, while small to medium in magnitude, is not statistically significant (Ivarsson et al., 2013). Hence, the failure to reject the null hypothesis and conclusion that there is no significant evidence to suggest that students with prior exposure to AI tools show a more significant improvement in critical thinking skills compared to those without prior exposure. Based on the analysis of the provided data, we aimed to test the hypothesis that there is a positive correlation between the frequency of AI tool usage and students' perceptions of academic performance and assignment efficiency (H2). We began by preparing the data and mapping the frequency of AI tool usage to numeric values: daily (3), weekly (2), and monthly (1). The relevant columns were extracted, and rows with missing values were dropped to ensure the accuracy of the analysis. The correlation analysis was performed, and the results are summarized in Table 6. The correlation matrix indicated a strong positive relationship between AI tool usage frequency and students' perceptions of academic performance (correlation coefficient = 0.741), as well as assignment efficiency (correlation coefficient = 0.720). The hypothesis testing results are presented in Table 7. The p-values for both correlations were extremely low (much less than 0.05), indicating that the correlations are statistically significant. Given the positive Pearson's correlation coefficients (0.741 and 0.720) and the very low p-values, we reject the null hypothesis. This confirms that there is significant evidence to support the alternative hypothesis: there is a positive correlation between the frequency of AI tool usage and students' perceptions of academic performance and assignment efficiency (H2). The linear regression plots illustrate the relationships between AI tool usage frequency and two variables: perceptions of academic performance and assignment efficiency. Figure 1 shows the regression line that fits the data points, indicating a positive linear relationship. The black line represents the predicted values based on the linear regression model, and it aligns well with the data points, suggesting that as the frequency of AI tool usage increases, students' perceptions of academic performance also tend to improve. Figure 2 also demonstrates a similar positive linear relationship. The regression line shows that increased frequency of AI tool usage is associated with greater assignment efficiency. These linear regression plots visually reinforce the findings from the correlation analysis and hypothesis testing, supporting the hypothesis that there is a positive correlation between the frequency of AI tool usage and students' perceptions of academic performance and assignment efficiency (H2).

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 decrease of approximately **0.79**18 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.

Answer: These skills are what employers look for

Kevin Gray 24"What Are Employers Looking for When Reviewing College Students' Resumes?" *Default*, 2024, www.naceweb.org/talent-acquisition/candidate-selection/what-are-employers-looking-for-when-reviewing-college-students-resumes#:~:text=Written%20communication%20skills%2C%20initiative%2C%20strong,in%20the%20candidates%20they%20recruit. Accessed 3 Mar. 2025.[Kevin Gray is an associate editor at NACE.]

Specifically, when asked what attributes they are looking for on resumes, **nearly 90% of employers** responding to NACE's Job Outlook 2025 survey indicated they **are seeking evidence of a student's ability to solve problem**s and nearly 80% are seeking candidates who have strong teamwork skills. (See Figure 1.) Written communication skills, initiative, strong work ethic, and technical skills are important to at least 70% of responding employers. **In addition, more than two-thirds seek verbal communication skills, flexibility/adaptability and analytical/quantitative skills in the candidates they recruit.** Both colleges and employers can help students address and develop these skills and attributes through classroom presentations, in campus programming, during internships, and more. However, it's important for students to indicate these skills and attributes on their resume so they can have the opportunity to further articulate their proficiency during an interview.

Data for the Job Outlook 2025 survey were collected from August 5, 2024, through September 16, 2024. Of the 237 total respondents, 162 were NACE employer members, representing 19.2% of eligible member respondents. The Job Outlook 2025 survey was also distributed to nonmember companies, from which an additional 75 responses were received. The Job Outlook 2025 report is presented in slide format; slides can be downloaded and used as is, or adapted with permission.