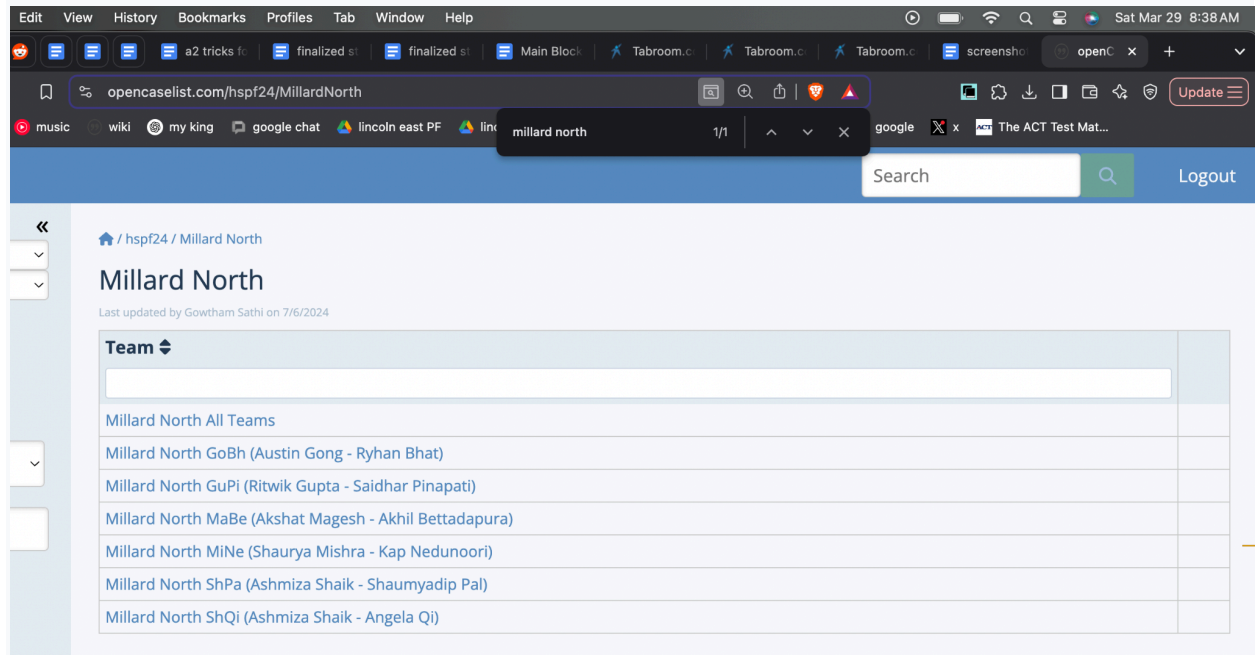


V1

A - Interpretation (3:00) Teams competing in the varsity or open division of Tabroom indicated 2024-2025 tournaments must disclose non-identity-based previously broken case positions on the 2024-2025 openCaselist HS PF wiki with the full citations and the full text of the card of any pieces of evidence which they have read in their case at least 30 minutes before the round under proper competitor identification, and not delete their disclosure.

B - Violation They didn't — screenshots prove. **Don't even have wiki page**



C - Standards

1. Quality engagement -- Disclosure allows in-depth preparation before the round which checks back against unpredictable positions. It allows for reciprocal engagement where each side has an equal opportunity to prepare as opposed to scouting capacity to determine success, and incentivizes in-depth debates where we engage with the warrants of which is key to clash and good topic education. Clash also requires frontlines to be more in-depth, impacting education before and during rounds with research, responses, and frontlines.
2. Academic Integrity – Disclosure deters mis-cutting evidence and power-tagging cards since it allows other debaters and your opponents the ability to recut your evidence and call you out if you are dishonest. A world with mandatory disclosure increases the chance of discovering misconstrued evidence and therefore prevents debaters from misconstruing evidence in the first place.
3. Small Schools – non-disclosure helps big schools—they have more coaches, debaters, and larger networks to scout and generate prep—disclosure checks back in three ways
4. Prepouts - Big schools have large networks of coaches and teams to make sure the chance of a report against a small school is 100%. Disclosure allows small schools to prepare big schools, decreasing inequality in the debate space.
5. Arguments - Small schools now have access to new arguments they can take from the wiki which increases topical education
6. New Programs - Small schools are excluded because of a lack of resources to form a debate program in the first place. The wiki solves by giving small schools a plethora of resources they need to compete and increasing the ability for new programs without coaches or lots of teams to be founded.

D - Voters

1. Education – they undermine the core benefits of debate, and actively promote a system that prevents the educational impacts established through the standards outlined above
2. Fairness – it's too educational

Drop the debater. Wins and losses determine the direction of the activity.

Default to competing interpretations because reasonability is arbitrary. There is no threshold for what is reasonable, so it requires intervention which is bad because it forces judges to insert their opinions about arguments rather than evaluate who did the better debating. Competing Interps creates a race to the top where we create the best possible norms for debate.

No RVIs —

1. Chills theory — deters legitimate theory vs. good theory debaters because you will lose on a shell even if it's a good norm
2. Baiting — incentivizes people to be abusive and script counter-interps to win on the RVI which increases the existence of bad norms
3. Kills substance — makes theory unconditional, forcing us to collapse on the shell, turns every debate into a theory debate. It's illogical — you don't win by proving you're fair

Offensive counter interps solve — you can read theory on us if we're being abusive

They must answer in next speech or concede the shell, 2 reasons:

1. Responding in 2nd rebuttal kills clash
2. They need to immediately answer the violation or it's dropped

Always prefer theory over substance because we're making changes in the real world.

Water Scarcity

The use of gen AI in education is growing Westfall 23

[Chris Westfall, Jan 28, 2023, "Educators Battle Plagiarism As 89% Of Students Admit To Using OpenAI's ChatGPT For Homework", Chris Westfall covers the changing nature of the leadership conversation. An international business coach to executives, entrepreneurs and aspiring leaders, he is the author of four books, and a ghost writer on eight more (including a Wall Street Journal Best-Seller). An international keynote speaker and frequent media guest, he has appeared on NBC, ABC NEWS, Bloomberg, BBC Radio and multiple broadcast outlets. His clients include influencers, Fortune 500 executives, entrepreneurs, political candidates, military leaders, professional athletes and global organizations. His entrepreneurial coaching clients have appeared on television shows like Shark Tank, Dragons Den in Canada and Shark Tank Australia. He regularly works with students across multiple disciplines at Texas A&M, where he has coached thousands of entrepreneurs, engineers and scientists - including the winners of the Rice Business Plan Competition in 2016 and 2023. He is a past recipient of the MBA top teaching award at Southern Methodist University's

Business Leadership Institute. Latest book: Easier (Wiley). Contributor since: 2019, Forbes,

<https://www.forbes.com/sites/chriswestfall/2023/01/28/educators-battle-plagiarism-as-89-of-students-admit-to-using-open-ai-chatgpt-for-homework/>]

Considering that **90% of students are aware of ChatGPT**, and **89%** of survey respondents report that they have **used the platform to help with a homework assignment**, the application of OpenAI's platform is already here. More from the survey.

Gen AI only results in the use of more AI infrastructure Voruganti

23 [Kaladhar Voruganti, August 7, 2023, "What Generative AI Means for Data Centers", Senior Business Technologist,

<https://blog.equinix.com/blog/2023/08/07/what-generative-ai-means-for-data-centers/>] //JS

he original prompt you put into the AI engine is highly important in delivering good results. Generative AI query response times can be slower (in the order of multiple seconds) compared to that of traditional AI queries (with sub-second response times) because of the extra processing and larger data sets. **Generative AI involves much larger AI training infrastructure and higher power consumption**, thus **requiring denser server racks and advanced cooling techniques**. In many use cases, subject matter experts can interact directly with generative AI systems instead of going through data scientists. Data scientists are still required for foundational model customization. Because of **the high computation and infrastructure requirements to create AI** models from scratch, companies are starting to share AI models through Model as a Service and open-source AI model marketplaces.

That's bad-they consume too much water University of Tulsa 24^{[The}

University of Tulsa, July 19, 2024, "Data centers draining resources in water-stressed communities", no author quals, <https://utulsa.edu/news/data-centers-draining-resources-in-water-stressed-communities/#:~:text=Unfortunately%2C%20many%20data%20centers%20rely.thousands%20of%20households%20or%20farms.>]//JS

The rapid growth of the technology industry and the increasing reliance on cloud computing and artificial intelligence have led to a boom in the construction of data centers across the United States. Electric vehicles, wind and solar energy, and the smart grid are particularly reliant on data centers to optimize energy utilization. These facilities house thousands of servers that require constant cooling to prevent overheating and ensure optimal performance. **Unfortunately**, many **data centers rely on water-intensive cooling systems that consume millions of gallons of** potable (**drinking**) **water annually. A single data center** can **consume[s]** up to **5 million gallons of drinking water per day, enough to supply thousands of households** or farms. **The increasing use and training of AI models has further exacerbated the water consumption challenges faced by data centers.** Machine learning, particularly deep learning models, requires significant computational power, which generates a lot of heat. As a result, data centers housing these machine learning servers need even more cooling to maintain optimal performance and prevent overheating. Graphics processing units, which are commonly used to accelerate machine learning workloads, are known for their high energy consumption and heat generation.

AI is taking more water than ever Rucker and Hill 24^{[Karah Rucker and Zachary Hill,}

October 8, 2024, "AI tools consume up to 4 times more water than estimated", Karah Rucker is a morning anchor and reporter for Straight Arrow News. Her journalism career has spanned two of our largest states, covering news in Texas and California and Zachary is a Video Editor at Straight Arrow News. Straight Arrow News, <https://san.com/cc/ai-tools-consume-up-to-4-times-more-water-than-estimated/>]//JS

A new report shows that **artificial intelligence tools, including ChatGPT, are using up to four times more water than previously** believed. **This discovery raises concerns** about the sustainability of data centers **as AI continues to expand.** **Researchers** from the University of California, Riverside found that processing 10 to 50 queries on AI chatbots can consume up to 2 liters of water, far exceeding the earlier estimate of half a liter. The increase is attributed to the intense cooling needs of data centers, where the servers generate significant heat.

Look to ChatGPT, a gen AI McNally 24

[Paul McNally, April 3, 2024, "Critical impact-ChatGPT consumes 500 ml of water for every 50 texts you send it", Paul McNally is the Founder of Develop AI, an innovative company that reports on AI, provides training and consulting services and builds AI tools. He is the Founder of podcasting company Develop Audio and the community radio non-profit Citizen Justice Network. He has received awards and recognition for his podcast Alibi and his influential book, The Street, that investigated corrupt cops and drug lords in Johannesburg. In 2016 he was a Visiting Nieman Fellow at Harvard.

<https://www.dailymaverick.co.za/article/2024-04-03-critical-impact-chatgpt-consumes-500ml-of-water-for-every-50-texts-you-send-it/>] //JS

Similarly, as we ramp up towards a world of constantly generating content with AI, we are being asked to consider the environmental cost of its production. According to a paper published [late last year](#), it is estimated that **ChatGPT is thirsty for 500ml of fresh water to generate** between **[just] five** and 50 **prompts** or questions. The range varies depending on where its servers are located and the season. The estimate includes indirect water usage which is needed to cool power plants that supply the data centres with electricity. And, frankly, **this is only the beginning**... The big guys can't hide how much more water they now need. In this [environmental report](#), Microsoft said that its **global water consumption spiked 34% from 2021 to 2022 (to over 6 billion litres)**. This is a sharp increase compared to previous years and researchers reckon this has to do with all its work with AI.

Firstly, gen AI is only hurting the wildfires, look at California, Tobin

25 [Taylor Tobin, Jan 11, 2025, "ChatGPT Is Under Attack For Its Use Of Water — But How Does That Even Work?", Taylor Tobin is a Brooklyn-based food and lifestyle writer whose work can be seen in publications like Insider, Observer, Fairygodboss, and Apartment Therapy. She spends most of her free time on some combination of bikes, books, and bourbon. https://www.huffpost.com/entry/how-does-chatgpt-use-water_l_6782a3d6e4b0788bdb62b2ba] //JS

AI platforms can't generate content without the help of massive data center servers. These centers "contain thousands of high-performance computer chips that process user queries," explained Daniel Kearney, the chief technology officer of Firmus Technologies, which focuses on creating sustainable operating solutions for AI companies. "Because the computers and chipsets that power servers are so densely packed, they generate an incredible amount of heat. Running complex AI applications like **ChatGPT requires immense amounts of computing power**, which generate lots of heat 24 hours a day," explained HP Newquist, an artificial intelligence historian and the author of "The Brain Makers: Genius, Ego, and Greed in the Quest for Machines That Think." To prevent servers from crashing, cooling systems are put in place to help regulate data center temperatures. And, in many cases, "water is used to physically cool AI servers," explained Mia Montoya Hammersley, an assistant professor specializing in environmental law and the director of the Environmental Justice Clinic at the Vermont Law and Graduate School. So how much water are we talking about here? "Many of these systems rely on water to absorb and dissipate the heat through cooling towers or evaporative cooling methods," Kearney told us. "For some large facilities, this can mean using millions of gallons of water per year." The current wildfires were caused in part by drought affecting much of Southern California. **"With California already experiencing an ongoing drought, the water necessary to fight these fires is further straining the state's water supply,"** Montoya Hammersley said.

"Water is a finite resource, and cutting back on AI use will have direct impacts on the state's water availability and ability to respond to this climate disaster."

Waddick 25 explains[Karissa Waddick, January 14, 2025, "How many homes have burned in the Los Angeles wildfires so far?", no author quals, AOL]

<https://www.aol.com/many-homes-burned-los-angeles-175405693.html#:~:text=How%20many%20homes%20have%20burned%20in%20the%20Los%20Angeles%20wildfires%20so%20far%3F.-Karissa%20Waddick%2C%20USA&text=More%20than%2012%2C000%20homes%2C%20businesses.Los%20Angeles%20area%20last%20Tuesday.>] //JS

More than **12,000 homes**, businesses, schools and other structures **have been destroyed by** raging **wildfires** that began ripping **through** the Greater **Los Angeles** area last Tuesday. Cal Fire said in an update Monday that a total of 40,300 acres have burned across multiple blazes including the Pacific Palisades fire west of Los Angeles, the Eaton Fire near Altadena and the Hurst fire near Sylmar. At least 24 people have died and more than **100,000 have been forced to flee their homes.**

But secondly, millions in the US suffer from a lack of water Shane 23 finds

[Cari Shane, Cari Shane is a D.C.-based freelance journalist who writes on subjects she finds fascinating — especially science, medicine, and health. Her work can be found in a wide variety of publications, from *Scientific American* to *Smithsonian*. "'We're going backwards in water access': How 46 million Americans still don't have safe drinking water", 03/17/2023, Fast Company, <https://www.fastcompany.com/90858376/were-going-backwards-in-water-access-how-46-million-americans-still-dont-have-safe-drinking-water>]//JS

They're not alone. **More than 46 million people in the U.S. live with water insecurity—either no running water or water that may be unsafe to drink.** Experts say at least \$18.4 billion is needed over the next 10 years to bring water security to more people, although the Environmental Protection Agency and American Water Works Association estimates it would cost close to fully \$1 trillion to replace and repair the U.S.' aging infrastructure. People are likely familiar with the water crises in Jackson and Flint, Michigan. In the former, flooding last summer overwhelmed the main water plant, and nearly 200,000 residents woke up to a boil water advisory; reports showed that high levels of lead in the city's drinking water were ignored for years. In the latter, toxic levels of lead in the water system—the result of aging, corroded pipes—sickened 100,000 residents and killed more than a dozen. But issues like this are happening all over the country in places like Tallulah, Louisiana; Grapeland, Texas; and parts of New Hampshire, Idaho, Kansas, Nevada, South Dakota, and Puerto Rico, where residents also don't have safe running water—their stories simply haven't made national headlines.

Water scarcity only results in deaths United Nations ND finds that[United Nations, No Date, "World Water Day Reminds Us of the Value of a Precious Resource", no author quals,

<https://www.un.org/en/academic-impact/world-water-day-reminds-us-value-precious-resource#:~:text=Approximately%203.5%20million%20people%20die%20water%20supply%2C%20sanitation%20and%20hygiene.>] //JS

(Young girls fetch water at a communal water pump drilled by the United Nations Children's Fund (UNICEF) in Bubango, Tanzania.) According to the World Health Organization unsafe drinking water, inadequate availability of water for hygiene, and lack of access to sanitation together contribute to about 88 percent of deaths from diarrheal diseases, which kill 900 children under 5 years old per day according to new UN estimates, or one child every two minutes. UN-Water, the United Nations inter-agency coordination mechanism for all freshwater related issues including sanitation, concluded that the major sources of water pollution are from human settlements and industrial and agricultural activities. Approximately **3.5 million people die each year due to inadequate water supply**, sanitation and hygiene.

LAWS

Gen AI is used in LAWS BHRRC 23 [BHRRC, May 2, 2023, "The application of generative AI to warfare raises human rights concerns", no author quals, Business & Human Rights Resource Centre, <https://www.business-humanrights.org/en/latest-news/the-application-of-generative-ai-in-warfare-raises-human-rights-concerns/>] //JS

Since the launch of ChatGPT in January 2023, generative artificial intelligence (AI) tools have been applied to a variety of industries. The defense sector is no exception. **Defense companies are beginning to apply generative AI to their use of autonomous weapons systems**, without clear explanations as to how salient human rights risks will be effectively mitigated. **This could lead to situations where biased or inaccurate responses to generative AI queries are relied upon to make life-or-death decisions in times of conflict, without much clarity** surrounding accountability or access to remediation. And what happens when autonomous weapons systems malfunction, are hacked or fall into the wrong hands?

Universities deliver LAWS in TWO years --- mass research capacity and priming graduates.

D'Agostino 24 [Susan D'Agostino, PhD in Mathematics from Dartmouth + MA in Science Writing from John Hopkins + Associate Professor of Mathematics @ Southern New Hampshire University + Editor @ the Bulletin of the Atomic Scientists + Spencer Journalism Fellow @ Columbia University, 1-31-2024, Does military AI research at universities benefit humanity?, Inside Higher Ed | Higher Education News, Events and Jobs, <https://www.insidehighered.com/news/tech-innovation/artificial-intelligence/2024/01/31/does-military-ai-research-universities>,] //beta squad

The United States Army Futures Command is at work modernizing weapons and equipment and identifying, acquiring and developing next-generation military technologies. It is "the best example of our commitment to the future lethality of the force" and "probably one of the boldest reforms" the Army has pursued, Secretary of the Army (later Secretary of Defense) Mark Esper told Congress in 2018. The command makes its home not on an Army base but on the campus of the University of Texas at Austin. That choice was by design.

"It's critical that we have access to talent," Esper said at the time. "Talent that can help us think about the future strategic environment, thinking in the 2030s, 2040s, because that will inform, in many ways, the steps we take with regard to material ... It's proximity to innovation. It's proximity to academia."

UT Austin has a mission, too. It seeks to "transform lives for the benefit of society" and "to serve as a catalyst for positive change in Texas and beyond." These human-centered ideals echo mission statements crafted by universities around the country that also lend expertise to the Pentagon.

Within the next few years, the United States is expected to possess fully autonomous lethal weapons systems—or "killer robots," as they are known to opponents. Now, some people are asking whether the Defense Department's massive higher education funding stream engages universities in supporting that work. While the Pentagon is clear about its lethal objectives, higher education is less so. Many universities welcome DOD funding with expressions of pride and altruism—and no mention of potential for harm.

"In the pursuit of talent, [the Defense Department] is like a parasitical creature that attaches itself to another entity to feed off of its energy and capabilities," said Michael Klare, the Five College Professor Emeritus of Peace and World Security Studies at Hampshire College, who also serves on the board of the Arms Control Association.

But some, including Emelia Probasco, senior fellow at Georgetown University's Center for Security and Emerging Technology, where she works on the military applications of artificial intelligence, suggest that a portrait of the Defense Department as overly "focused on the war machine" is simplistic. In higher ed-military collaborations, "there's quite a bit of health research and business operations research that gets overlooked," said Probasco, who served as a surface warfare officer in the U.S. Navy and deployed twice to the Indo-Pacific. She currently serves as a special government employee advising the Defense Innovation Unit.

Universities as 'Agents of the State'

To counter China's massive, asymmetric military advantage, the United States plans to field, within the next two years, the Replicator Initiative—thousands of autonomous systems across land, air, sea, space and cyberspace. Far from science fiction, Replicator's real-world autonomous weapons systems will deliver capabilities at "volume and velocity."

"We are not taking our foot off the gas, and in fact we're accelerating," Deputy Defense Secretary Kathleen Hicks said in a speech last year.

The Pentagon relies on contracts with private companies such as Lockheed Martin, Raytheon, General Dynamics, Boeing and Northrop Grumman to help develop, manufacture and supply advanced military technology such as fighter aircraft and missiles.

But universities outshine defense contractors in at least two areas—expertise and research capacity, according to Margaret O'Mara, the Scott and Dorothy Bullitt Chair of American History at the University of Washington. O'Mara's research connects the growth of America's high-tech sector with its political history.

The U.S. government's "mighty" higher education investment "essentially makes universities agents of the state, where they help achieve what the government wants to see happen in science but particularly in new military and space technology," O'Mara said. "Some might call it a devil's bargain."

Nearly 50 universities help the United States government build nuclear weapons, according to the International Campaign to Abolish Nuclear Weapons (ICAN), winner of the 2017 Nobel Peace Prize. Lucrative contracts may offer an incentive for overlooking moral quandaries concerning weapons design and development, according to Alicia Sanders-Zakre, ICAN policy and research coordinator. Now, ICAN is concerned that the Defense Department may substitute artificial intelligence for human judgment in nuclear weapons use.

Not everyone sees the status quo in such stark terms. Faculty and students in Case Western Reserve University's military ethics program, for example, devote time and expertise to understanding the ethical use of emerging military technologies, among other objectives. In doing so, they seek to support "long-term humanitarian goals, such as preventing unjust wars, decreasing incidents of war crimes, genocide, human rights abuses, and other atrocities produced by the dehumanizing effects of armed conflict."

Either way, much of the Defense Department's work—from managing weapons labs and training the next generation of weapons scientists—is classified for national security reasons. That makes gleaning information about university-military collaborations challenging, though not impossible.

"Look at the budget and follow the money," Sanders-Zakre said.

The Money

The 2024 Defense Department budget offers rationales for its spending, including for funding streams to universities. The department seeks to "keep our nation safe while delivering a combat credible Joint Force that is the most lethal [emphasis added], resilient, agile, and responsive in the world," according to Secretary of Defense Lloyd J. Austin III.

The U.S. Defense Department expects to spend \$842 billion in 2024. (In contrast, the Education Department got \$79.2 billion in the fiscal 2023 budget.) Defense funding is divided into three broad categories: operations and support (which accounts for nearly two-thirds of the budget); acquisition (which includes procurement,

research, development, testing and evaluation and accounts for 37 percent of the budget); and infrastructure (which includes military construction and family housing and accounts for 2 percent of the budget). Higher education receives only a fraction of the defense budget, much from the acquisition category.

But a fraction of hundreds of billions can be significant for individual universities or academic researchers. UT Austin, for example, received a five-year, \$65 million contract for serving as the Army Futures Command headquarters.

In support of its "most lethal, resilient, agile, and responsive" goals, the Defense Department funds the highly competitive Multidisciplinary University Research Initiative (MURI) program. In this program, teams of university researchers "focus on [Defense Department]-specific hard science problems." For this and other university research initiatives, the 2024 DOD budget allocates \$347.3 million.

The institutional recipients of the 2024 MURI program have not yet been named. But in 2023, this initiative awarded \$220 million to 31 teams at 61 U.S. academic institutions, or an average of \$7.1 million per team.

Also in 2023, the Defense Department, through its Defense University Research Instrumentation Program, awarded \$161 million to 281 universities to purchase equipment supporting defense-relevant research. This program seeks to foster innovation leading to "unprecedented military capabilities" in next-generation wars, according to Bindu Nair, director of basic research in the Office of the Under Secretary of Defense for Research and Engineering.

Scant Details on Potential Harm

The University of South Florida College of Engineering, in announcing its (relatively modest) \$5 million Defense Department grant to study AI models for the U.S. military, highlighted that the work would "benefit society at large." The work involves conducting research "related to AI and associated technology," including "recognizing legitimate targets." With this word choice, the work is cast as an academic exercise, not one with a potential human toll. (The computer science professor referenced in the news release did not respond to a request for comment.)

The University of Dayton's poetically named Soaring Otter—an \$88 million Air Force award—provides research and development "to advance, evaluate and mature Air Force autonomous capabilities," according to the university. In the military, "autonomous capabilities" could have applications in lethal autonomous weapons.

But the institution's press statement is vague about whether the work would advance AI agents that are capable of making decisions to kill without human input. (The principal investigator at the university referenced in the press release did not respond to a request for comment.)

"The [Defense Department] does not rule out any system even," said Probasco, who is not involved with Soaring Otter. "But in considering any future autonomous or AI-enabled weapon ... they put in place what, in the technical world, we call a risk-management process."

When Texas A&M University's Engineering Experiment Station announced its lead on a five-year Defense Department applied hypersonics project valued at \$100 million, it spoke of "advancing innovation" and "nurturing the next generation of researchers." The news release was opaque about whether the work would contribute to hypersonic weapons research. Hypersonic missiles, which fly faster than Mach 5, offer militaries a distinct advantage, as they can evade nearly all defense systems.

"It doesn't matter what the threat is," General John Hyten, the former vice chairman of the U.S. Joint Chiefs of Staff, said of hypersonic missiles' significance, as reported in Voice of America. "If you can't see it, you can't defend against it." (The engineering professor referenced in the university press release did not respond to a request for comment.)

A Blurry Line

Universities are not wrong when they suggest that DOD funding supports innovation, especially when the influx of cash amounts to billions. The modern internet, for example, was born from a project at the precursor to the Defense Advanced Research Projects Agency, or DARPA. Concerning the development of artificial intelligence, machine learning and autonomous systems, the U.S. government acknowledges its interest in defense applications. But it also observes that the research has applications in "fields as diverse as manufacturing, entertainment and education."

Complex software systems underpin Defense Department operations, according to a Carnegie Mellon University press release announcing a renewed defense contract. The award, which was valued at \$2.7 billion over five years, provides funds to operate the Software Engineering Institute.

In the statement, J. Michael McQuade, Carnegie Mellon's vice president for research, championed the institution as "a high-tech anchor" and the contract for "supporting jobs." Whether that software could be applied to lethal autonomous weapons systems was unclear. Software can be susceptible to algorithmic bias based on race, disability and gender, which would be especially problematic if targeting humans.

In 2019, Carnegie Mellon University president Farnam Jahanian, a computer scientist and entrepreneur, was asked whether he would endorse an autonomous weapon ban. The question was posed during a press conference with local media upon the expansion of Carnegie Mellon's collaboration with the Army's Artificial Intelligence Task Force. At that time, he declined to endorse a ban, which aligns with the position of the U.S. government.

U.S. Policy: Lethal Autonomous Weapons Are an Option

The Defense Department has dedicated time, attention and resources to support its understanding of responsible AI. The 47-page policy directive, "U.S. Department of Defense Responsible Artificial Intelligence Strategy and Implementation Pathway," for example, offers evidence of that.

The department's 2012 autonomous weapons policy directive also "assigns responsibilities for developing and using autonomous and semi-autonomous functions in weapon systems" and "establishes guidelines designed to minimize the probability and consequences of failure" in those systems.

Said differently, the Pentagon can imagine circumstances under which lethal autonomous weapons may be used. Some, including Probasco, agree. She, for example, "would much rather have a missile that's better at hitting its intended target than just hoping ... 'we threw them as best we could.'"

The Defense Department "has terrible, terrible incidents in our history where people made decisions that honestly break my heart," Probasco said. "But every time we get up, we try to get better, and we try to put in place rules and operating procedures and training and technologies that will prevent the harm but achieve the mission."

But many universities that have accepted military funding appear to avoid conversations—nuanced or not—concerning whether campus research could contribute to destruction or death.

UT Austin, for example, did not respond to a request for comment about its mission statement. Also, the Massachusetts Institute of Technology's AI Accelerator—funded with \$15 million from the Air Force—does not post an email address for its director on its webpage. A staff member in the MIT media relations office said that the director was "traveling with a packed schedule" and needed to decline to speak. The university also did not respond to a subsequent request to be put in touch with any one of the other 25 team members at the AI Accelerator.

"The vagueness works in the military's favor," Sanders-Zakre said. "Maybe university researchers believe—and maybe rightly so—that their research can have multiple applications and will not just be used for weapons. But that's why the Defense Department funds the work."

Equal Opportunity Defense Work

For a long time, the Defense Department appeared to favor predominantly white institutions in its funding. In 2020, for example, Johns Hopkins University, the Georgia Institute of Technology and Pennsylvania State University received more than half of the department's more than \$2.5 billion allocated for university science and engineering programs, while historically Black colleges and universities received less than \$1 million, according to University Business.

But in 2023, DOD awarded \$90 million to Howard University—a first for a historically Black institution—for its new Research Institute for Tactical Autonomy. Dr. Wayne Frederick, Howard's president at the time, dubbed the new institute "historic" and "tremendous" for diversifying the pool of scientists contributing to national security. At the same time, he made no mention of potential harmful social impacts.

Howard's new institute will have "a direct impact on my classmates and my wingmen," Victor Fabritz Lugo, a Howard sophomore and Reserve Officers' Training Corps member, told The Hilltop, Howard's student newspaper. Evidence supports Lugo's claim.

Student Interests, Shaped by the Pentagon

On-campus military research may normalize weapons work among students. For example, many soon-to-be college graduates use Handshake—a career services platform promoted by many universities that matches college students with prospective employers—to find jobs. In 2023, three defense contractors cracked the top 10 searches on the website, according to a Handshake analysis.

Student Handshake search interest in Raytheon (No. 1 on the list) was up by 209 percent. For Lockheed Martin (No. 4), searches were up by 92 percent. For Boeing (No. 8), searches were up by 56 percent. These three companies also ranked in the top 10 of another list—the top 10 defense contractors. (The study's random sample included nearly 1,000 college students at four-year higher education institutions; correlation does not imply causation.)

No big tech companies—such as Meta, Google and Microsoft—made Handshake's top 10 searches.

Handshake explained the finding in the context of layoffs and economic uncertainty. In 2023, college graduates "want a stable job that pays well, and they're willing to flex other requirements—from company brand and growth rate to remote work options—to get it," the company wrote.

Last year was "the worst 12 months for Silicon Valley since the dot-com crash of the early 2000s," which included eliminating 260,000 jobs, according to NPR. In 2024, the carnage at Microsoft, Amazon, Alphabet, Meta and other big tech companies has continued. Nearly 100 tech companies have already laid off close to 25,000 employees in the first month of the year, according to Layoffs.fyi.

Tech-savvy students are primed to consider alternatives to Silicon Valley. For those who came of age on campuses where administrators framed war technology in only positive terms, defense contractors may provide an appealing option—one that appears to promise security from layoffs and unexpected downsizing.

Academia is crucial.

Klare 23 [Michael T. Klare, Professor emeritus of peace and world-security studies @ Hampshire College
1-30-2023, The Pentagon's Quest for Academic Intelligence: (AI), Nation,
<https://www.thenation.com/article/world/the-pentagons-quest-for-academic-intelligence-ai/>]/beta squad

Largely propelling this drive for direct academic access is the Pentagon's belief that superior command of AI will prove essential for success in future conflicts. "AI will transform all aspects of military affairs," the National Security Commission on Artificial Intelligence declared in its Final Report of February 2021. "In the future, warfare will pit algorithm against algorithm."

Algorithms—the computer programs that govern an ever-expanding range of civilian and military devices—do not roll off industrial assembly lines as do tanks, planes, and missiles. Rather, they are fashioned by computer scientists at universities and the innovative start-ups they have installed on academia's periphery. To gain access to these innovators and the fruits of their labor, the Army and Air Force have established operating units at several universities, including MIT, Carnegie Mellon, Texas A&M, and the University of Texas at Austin.

Prominent among these centers is the Air Force-MIT AI Accelerator, established in 2019 with \$15 million in Air Force funding. The US military has, of course, long subsidized advanced weapons research at MIT's Lincoln Laboratory, an FFRDC located in Lexington, Mass. But the AI Accelerator is very different: It's located on MIT's main campus in Cambridge and involves active participation by Air Force personnel in joint projects with faculty and students. In this manner, the university states, "a multidisciplinary team of embedded officers and enlisted Airmen join MIT faculty, researchers, and students to tackle some of the most difficult challenges facing our nation and the Department of the Air Force" (emphasis added). Since when has it been necessary to "embed" serving military personnel on American university campuses?

Automation escalates conflict.

Yu 24 [Jihoon Yu, MA in National Security Affairs from the US Naval Postgraduate School & PhD in Political Science from Syracuse University, 12-20-2024, The Strategic Implications of AI on Maritime Security, Real Clear Defense, [The Strategic Implications of AI on Maritime Security | RealClearDefense](#)]//beta squad

Artificial Intelligence (AI) is transforming the global security landscape, and its impact on the maritime domain is profound. From enhancing surveillance to introducing new vulnerabilities, AI's role in maritime security offers significant opportunities and challenges. One of AI's most transformative contributions lies in improving situational awareness and surveillance. Traditional methods of monitoring vast oceanic spaces are labor-intensive and limited in scope, but AI-powered systems can analyze data from satellites, drones, and automatic identification systems (AIS) to detect patterns and anomalies. This capability enables the identification of "dark ships" involved in illicit activities such as smuggling or illegal fishing, allowing authorities to act proactively and efficiently. In naval operations, AI is revolutionizing capabilities through the deployment of autonomous systems. Unmanned surface vessels and underwater drones can perform high-risk tasks like reconnaissance, mine detection, and surveillance, reducing risks to human crews. However, the use of AI in naval warfare raises strategic concerns. Autonomous systems could escalate conflicts if they act unpredictably or misinterpret data. The lack of international regulations governing AI-driven weapons further complicates the potential for conflict resolution and risk management in contested regions. If rival states deploy AI-enabled naval systems without coordination or transparency, the risk of accidental confrontations or rapid escalations in regions such as the South China Sea or the Arctic grows significantly. These strategic flashpoints, where competing claims and heightened tensions already exist, could see AI amplifying instability rather than mitigating it. Ports, as critical hubs of global trade, also stand to benefit from AI integration. Automated systems powered by AI can enhance cargo inspections, detect anomalies, and improve access control, bolstering security and reducing vulnerabilities to criminal or terrorist activities. Predictive analytics can identify patterns that signal threats, ensuring timely interventions. However, the increased reliance on digital systems introduces cybersecurity risks, a double-edged sword in the maritime domain. AI-driven cybersecurity tools can help detect and neutralize threats, but adversaries can also use AI to launch sophisticated attacks. Cyberattacks on ports or shipping systems could disrupt global trade, creating cascading economic and geopolitical effects. AI's role in maritime warfare brings additional strategic risks. Autonomous systems and decision-making platforms could alter the nature of naval conflicts, making engagements faster and less predictable. This heightens the risk of escalation in already tense regions, such as the South China Sea. Misidentifications or unintended actions by AI systems could spark conflicts, and the absence of international agreements on the use of AI in military applications increases the potential for miscalculations. For example, an AI-powered naval drone could perceive a civilian or non-threatening vessel as hostile, prompting unnecessary or disproportionate responses. Such incidents could trigger a chain reaction in high-tension regions, potentially drawing major powers into conflict. On a broader strategic level, AI is altering the balance of power in maritime security. Nations with advanced AI capabilities have a distinct advantage, as they can integrate sophisticated technologies into their maritime operations, creating a technological gap between themselves and less-developed states. This disparity could lead to a concentration of power among a few dominant nations, undermining collective maritime security efforts. Additionally, adversaries with access to AI capabilities, such as autonomous naval vessels or intelligent cyberattack platforms, could challenge the dominance of traditionally superior navies, leveling the playing field in asymmetric conflicts.

Rebuttal:

A2 Teacher Burnout

AI increases teacher burnout by forcing them to adapt their curriculum to prevent cheating

Priten **Shah** (Priten Shah is an education entrepreneur and the author of *AI & The Future of Education: Teaching in the Age of Artificial Intelligence* (Jossey-Bass, 2023). He is the founder of Pedagogy.Cloud, an educational consulting firm that supports educators in K-12 schools, higher education, and the nonprofit sector adapt to the increasing capabilities of AI.

), 6-5-2024, "I Was an AI Optimist. Now I'm Worried It's Making Teacher Burnout Worse (Opinion)," Education Week, <https://www.edweek.org/technology/opinion-i-was-an-ai-optimist-now-im-worried-its-making-teacher-burnout-worse/2024/06>, accessed 2-27-2025 //ejs squad

Seemingly overnight, understanding AI technology went from being a niche skill to an essential life skill. While many educators across the country have diligently spent their free time, prep periods, and summer vacations pursuing professional development, an overwhelming majority are rightfully daunted by the prospect of learning how to navigate this new technology. The learning curve for many educators has been much steeper than is being acknowledged. The prospect of learning a brand-new tool can be overwhelming as you learn its features, capabilities, and limitations, and how it works best for you. Using AI tools also involves learning more than just the user interface of a new tool; it requires our educators to learn how this technology works to feel empowered to use it responsibly and have meaningful conversations with their students about it. For others, the technology remains unaffordable as major tools begin to paywall their strongest features. Absent support from their district, this often means that many teachers have an additional expense that they must pay out of pocket to use these technologies in the powerful ways advertised. This only further limits the number of teachers who are seeing the benefits of developing AI literacy. Even those who manage to find the time and money to pursue some professional development or are part of a small contingent of American teachers who receive resources from their schools still face the task of staying current with the developments and rapid changes that the AI space is currently undergoing. Schools and districts need to acknowledge the challenge AI creates for teachers who want to become active, responsible users of the technology. They must find space in their existing professional development schedules and allow teachers to spend meaningful time learning about and using AI technology in ways that can eventually reduce their workload. How AI has changed curriculum Part of the frustration we hear from educators is how many of their assignments need to be restructured, given the ability for students to use AI technologies to complete their homework easily. This has creat[ing]ed a crisis for educators who assign out-of-class work, especially those who extensively use independent writing as an assessment tool. Teachers are facing the need to rethink their assessments and pedagogical practices, with very little guidance on how to effectively and sustainably make these changes. The definition of "AI-proof assignments" shifts so rapidly that it has become a relatively futile goal for educators to pursue. Some "AI proofing" has relied on generative AI's limited knowledge of recent events and its inability to perform math, while other anti-cheating efforts turned to now-defunct AI detectors or the lack of students' voices in writing. As AI programs continue to overcome these limitations, teachers will likely have to move toward different types of student assessments that capitalize on classroom time and use independent time only for preparatory work.

A2 Workforce

AI in the workplace is already being disproved to help people

Doctorow 24 [Cory Doctorow (Canadian-British blogger, journalist, and science fiction author who served as co-editor of the blog Boing Boing. He is an activist in favour of liberalising copyright laws and a proponent of the Creative Commons organization, using some of its licences for his books.), AI's productivity theater, 7-25-2024, Medium,

<https://doctorow.medium.com/https-pluralistic-net-2024-07-25-accountability-sinks-work-harder-not-smarter-ec371d191c84>] accessed 2-20-2025 //ejs squad

The headline findings tell the whole story: **96% of bosses expect that AI will make their workers more productive**; 85% of companies are either requiring or strongly encouraging workers to use AI; **49% of workers have no idea how AI is supposed to increase their productivity**; **77% of workers say using AI decreases their productivity**. Working at an AI-equipped workplaces is like being the parent of a furious toddler who has bought a million Sea Monkey farms off the back page of a comic book, and is now destroying your life with demands that you figure out how to get the brine shrimp he ordered from a notorious Holocaust denier to wear little crowns like they do in the ad:

<https://www.splcenter.org/fighting-hate/intelligence-report/2004/hitler-and-sea-monkeys> **Bosses spend a lot of time thinking about your productivity. The "productivity paradox" shows a rapid, persistent decline in American worker productivity, starting in the 1970s** and continuing to this day: https://en.wikipedia.org/wiki/Productivity_paradox The "paradox" refers to the growth of **IT**, which **is sold as a productivity-increasing miracle**. There are many theories to explain this paradox. One especially good theory came from the late David Graeber (rest in power), in his 2012 essay, "Of Flying Cars and the Declining Rate of Profit": <https://thebaffler.com/salvos/of-flying-cars-and-the-declining-rate-of-profit> Graeber proposes that the growth of IT was part of a wider shift in research approaches. Research was once dominated by weirdos (e.g. Jack Parsons, Oppenheimer, etc) who operated with relatively little red tape. The rise of IT **coincides with the rise of "managerialism," the McKinseyoid drive to monitor, quantify and — above all — discipline the workforce**. IT made it easier to generate these records, which also made it normal to expect these records. Before long, every **employee** — including the "creatives" whose ideas were credited with the productivity gains of the American century until the 70s — was **spending** a huge amount of time (sometimes **the majority of their working days**) filling in forms, **documenting their work**, and generally producing a legible account of their day's work. All **this data gave rise to a ballooning class of managers, who colonized every kind of institution** — not just corporations, but also universities and government agencies, which were structured to resemble corporations (down to referring to voters or students as "customers"). Even if you think all that record-keeping might be useful, there's no denying that the more time you spend documenting your work, the less time you have to do your work. **The solution** to this **was inevitably more IT**, sold as a way to make the record-keeping easier. But adding IT to a bureaucracy is like adding lanes to a highway: the easier it is to demand fine-grained record-keeping, the more record-keeping will be demanded of you. But that's not all that IT did for the workplace. There are a couple areas in which **IT absolutely increased the profitability of the companies that invested in it**.

GAI decreases productivity

Hailey **Mensik**, Hailey Mensik write for WorkLife news, a Digiday publication covering the future of work, including topics like tech, spaces, culture, diversity, equity and inclusion., 7-24-2024, "AI is actually making workers less productive", WorkLife, <https://www.worklife.news/technology/ai-is-actually-making-workers-less-productive/> //ejs squad

Generative AI tools that are poised to eliminate time-consuming tasks leading to major boosts in workplace productivity have yet to make good on that promise. In fact, right now they are doing the opposite — **giving employees more work to do and contributing to burnout**. Almost **80% of workers who use generative AI in their jobs said it has added to their workload and is hampering their productivity**, an Upwork survey among over 2,500 full-time workers, freelancers and executives found. **Workers say they're spending more time reviewing or moderating AI-generated content** and investing more of their time in learning how to use the tools, and their experiences **are far apart from the perceptions of their employers**. Some 96% of executives expect AI to boost productivity, while about 40% of employees say they don't know how that will ever happen, the Upwork survey found. Accordingly, employers will need to adjust their expectations and approach to effectively integrate new tech and see some ROI — though it'll likely be less than they're hoping for. "What's happening is that this hype bubble is just huge, and it's disproportionate to the actual impact the technology can have right now, especially the

way it's being deployed," said Emily Rose McRae, senior director analyst at Gartner. "What's happening is that this hype bubble is just huge, and it's disproportionate to the actual impact the technology can have right now, especially the way it's being deployed." "I talked with one client who said their board declared they should cut headcount by 20% due to generative AI. I'm going to be frank that I'm not actually sure any company has come anywhere near that level of headcount cutting, and I don't know that they will, because that's just not how the tool works," McRae said. A key problem is that the tools themselves remain imperfect. Generative AI is still prone to hallucinate or fabricate an answer that sounds reasonable, meaning a human's input is needed to double-check the material. "What it does is it saves you the time of putting it all together in the first place," McRae said. Naturally, there are examples of companies that have found generative AI is genuinely saving time for workers. There are also some extremely specific use cases where generative AI really has had a massive impact, like the legal field, where during discovery AI tools can help lawyers research and analyze existing case law and summarize huge amounts of information, she said. In other cases, gen AI-powered chatbots can significantly speed up the time it takes staff to learn how to operate a new software or complete new tasks, or save HR leaders time by answering employee questions and virtually directing them to resources. But in all cases, a human is still needed to review the validity of the output. The review process can be time-consuming itself, and neglecting to do so carries varying levels of risk. "A lot of your large language models only operate at best when a human's in the loop and when there is human judgment and oversight, and that's just the reality of where we are with this technology," said Kelly Monahan, managing director and head of the Upwork Research Institute. "A lot of your large language models only operate at best when a human's in the loop and when there is human judgment and oversight, and that's just the reality of where we are with this technology." "In order to really capture the productivity gains, we actually have to take a big step back and say what is the business problem we're solving for? How do I rethink the way that I'm doing my job in order to achieve that? And how does this tool help? And I'm not sure that a broader AI strategy in workforce development has taken place yet in many organizations," Monahan said. Instead workers are feeling left on their own when it comes to making the tools really work for them. The Upwork survey found that 40% of workers feel their company is asking too much of them when it comes to AI, and they are investing far more of their time teaching themselves how to use the tools. Employers can better support staff by holding focus groups to determine exactly what barriers they're facing and what kind of targeted training is needed, Mcrae said. "If it's a priority that your workforce experiment with and learn how to use generative AI, make sure you have real cases for what you want them to be doing with it and give them the tools and space to learn how to do that. But also ideally be very open to the feedback, that this doesn't do what we need it to do, and it's actually not helpful," she said. In the near future, Mcrae believes employers will soon start teaching staff to spot AI hallucinations the same way they do with phishing, or through "information skepticism" training. There they will learn how to spot cues to be more skeptical of an output, or any AI-generated content — whether it's labeled as such or not — and when they can accept one more confidently. Just like phishing they'll also be able to report such instances and use that data to better inform the language models they are working with.

A2 Vaccines/Medical Training

AI is empirically proven to worsen medical outcomes

[James L **Cross** ^{1,*}, Michael A **Choma** ², John A **Onofrey** ^{2,3,4} PLOS Digit Health. 20**24** Nov 7;3(11):e0000651. doi: 10.1371/journal.pdig.0000651 / ¹Yale School of Medicine, New Haven, Connecticut, United States of America / ²Department of Radiology & Biomedical Imaging, Yale / University, New Haven, Connecticut, United States of America / ³Department of Urology, Yale University, New Haven, Connecticut, United States of America / ⁴Department of Biomedical Engineering, Yale University, New Haven, Connecticut, United States of America / ⁵Mayo Clinic Rochester: Mayo Clinic Minnesota, UNITED STATES OF AMERICA / The authors have declared that no competing interests exist. https://pmc.ncbi.nlm.nih.gov/articles/PMC11542778/1//ejs_squad

In this work, we explore the challenges of **biases** that emerge **in medical** artificial intelligence **(AI)**. These biases, if not adequately addressed, can **lead to poor clinical decisions and worsen existing healthcare inequalities by influencing an AI's decisions in ways that disadvantage some patient groups over others**. We discuss several stages in the process of developing a medical AI model where bias can emerge, **including collecting data, training a model, and real-world application. For instance, the way data is collected can exclude or misrepresent certain patient populations, leading to less effective and inequitable AI systems.** We provide examples, both hypothetical and real, to illustrate how these

biases can alter clinical outcomes. These examples show that biases are not just possible; they are a significant risk if not actively countered. Our review stresses the importance of diverse and comprehensive data sets, sophisticated statistical methods to remove biases, and clear reporting standards—key components of a future where medical AI works equitably and supports high-quality clinical care for everyone. Given the frequency and impact of imbalanced data bias, AI developers can proactively counteract its effects on models and downstream clinical decision-making. **Prior to any model development, a helpful first pass would be to review and characterize the data set of interest, ensuring appropriate representation across racial, ethnic, and other sociodemographic dimensions.**

Many healthcare professionals are hesitant to embrace AI technologies

Thomas 24 [Nick Thomas, July 16, 2024, "AI has a big future for healthcare but only if workers can embrace it: report", no author quals, Fierce Healthcare <https://www.fiercehealthcare.com/ai-and-machine-learning/ai-has-big-future-healthcare-only-if-workers-can-embrace-it-report> DOA: 3/10/2025] //ejs squad

"But, nearly two-thirds say healthcare professionals are skeptical about the use of AI and automation technology, which could be barriers to successful tech rollouts." The

findings are among the key conclusions in the Future Health Index 2024 report from global technology company Philips. "This year's report shows how innovations including AI are helping to free up time for staff and reduce wait times for patients," said Shez Partovi, chief innovation and strategy officer at Philips. "However, as health systems roll out AI tools to save time and reduce barriers to care, it's critical to bring staff along on the journey to ensure an inclusive AI rollout with patient and clinician experience is at the forefront." His words were supported by Professor Chiara Bucciarelli-Ducci, M.D., cardiologist and CEO of the Society for Cardiovascular Magnetic Resonance in London.

Gen AI introduces training biases into medical education and destroys critical thinking

Siafakas 24 [Nikolaos Siafakas and Eirini Vasarmidi, 03-xx-2024, Department of Computer Science, University of Crete, Heraklion, Greece, "Risks of Artificial Intelligence (AI) in Medicine", Pneumon: Official Journal of the Hellenic Thoracic Society, DOA 3-5-2025

<https://www.pneumon.org/Risks-of-Artificial-Intelligence-AI-in-Medicine,191736,0,2.html>] //ejs squad

Risks from AI in medicine: present Data AI systems use specific algorithms that need large datasets to improve their accuracy (specificity/sensitivity). This process is at great risk, as far as the security, privacy, and confidentiality of the sensitive individual patient's data, is concerned¹¹. Today, the danger of hacking of such datasets has increased tremendously due to the interest of the pharmaceutical or insurance companies. In addition, the hacking of medical files could be a part of a cyber-attack against a government^{12,13}. **Another issue is data bias. During the collection of the data, intentionally or unintentionally, certain minorities, races, ethnicities, or genders may be significantly misrepresented.** Therefore, these **algorithms are biased** and inadequately represent the general population^{14,15}. This bias effect could be magnified by the reluctance of medical practitioners, hospitals, or other health organizations, to provide the medical files of their patients due to fears of security leaks. **Another significant danger of medical data misuse is the data poisoning effect, which refers to the deliberate manipulation of medical data to introduce errors or biases in healthcare.** This has serious consequences on the accuracy and reliability of medical recommendations. This could also affect the outcomes of clinical trials or insurance claims¹¹. **Finally, when AI uses different epidemiological data models, as was seen during the COVID-19 epidemic, this could lead to different conclusions.** Development of AI algorithms in medicine An inaccurate medical algorithm could affect a large number of patients. This may be the result of inadequate testing of such an algorithm since there are currently no solid rules to test its validity. A potential example is the case of double-blind trials, which are generally considered the most powerful tool to establish the effect of a particular treatment¹⁶. Nevertheless, it is unclear who would be responsible in case of such a mistake: the personal doctor, the hospital, the provider of the machine, or the company developing the algorithm. Therefore, there are significant legal issues of accountability for medical errors due to malfunction of the machines¹⁵. Implementation Health providers are not adequately trained to use AI technologies, thus, the implementation of these modes of treatment in practice, raises additional security and error issues, until a widely accepted training system for healthcare providers can be established¹⁷. Furthermore, AI may harm the doctor–patient relationship¹⁸. In-depth knowledge of AI evaluation and performance is required by doctors, to

communicate the role of AI meaningfully to patients, and avoid patients' fear and confusion¹⁹. Fake news-medical information Algorithms of fake information have been used to affect human behavior altering the socio-economic patterns of individuals or societies. In that case, AI generates articles and social media posts that are designed to deceive the public since they appear legitimate but are completely fabricated. It was reported that fake news could affect even the results of elections^{20,21}. Similarly, AI has been used to generate, amplify, and manipulate the perception of medical issues spreading confusion. An example is the use of fake news in the global movement against vaccinations. People without the appropriate background of knowledge and training can easily misunderstand and misinterpret information about medicine and science. Unfortunately, fake information may affect even health practitioners²². **Risks in medical education** Although AI made it extremely easy to access medical information, the crucial concern is that this information is not always properly validated. The recently developed Chatboxes, which can provide written articles, answers to university exams, or the contents of a requested lecture, should be also considered as potential threats of AI¹⁹. As their accuracy and validity in various medical aspects have not yet been vigilantly tested, they may represent significant threats. **Moreover**, there is the so-called 'lazy doctor' effect^{18,23}. **If the doctor exclusively uses AI algorithms**, for the diagnosis as well as the treatment options, **this may lead** progressively **to catastrophic forgetting of practical skills and** loss of intellectual **creativity** and capacity **to solve medical problems**, taking into consideration all the medical and ethics parameters of the patients. Risks of AI in medicine: near future During the development phase (approximately up to 2050), in terms of social gaps, it is expected that AI in medicine, instead of promoting equality in health services around the globe, may increase the gap between technologically advanced countries and those lacking digital facilities.