

# **GULF COAST 10**

# **GENERAL ASSEMBLY 1 (GA1)**

# SAFEGUARDING HUMAN PROSPERITY IN THE AGE OF ARTIFICIAL INTELLIGENCE

## **Authors:**

#### Introduction

As humanity continues to push the boundaries of technological advancement, there is a singular technology that has come up time and time again—artificial intelligence. As defined by IBM, Artificial intelligence (AI) is a technology that enables computers and machines to simulate human learning, comprehension, problem-solving, decision-making, creativity, and autonomy¹. Over the last several decades, there has been much discourse on how AI can improve the standard of living globally and how well AI should be allowed to imitate humans. Popular media such as the film *The Terminator*, as well as the much earlier literary work *I, Robot* brought such ethical dilemmas to the cultural West as early as the 1940s. With recent advancements in AI and the global influence of AI conglomerates such as Nvidia and OpenAI, the ethical and social dilemmas this technology poses are more prevalent than ever.

## Deepfakes and Political Instability: Unmasking the Threat of Digital Deception

Deepfakes are officially defined as "images or recordings that have been convincingly altered and manipulated to misrepresent someone as doing or saying something that was not actually done or said.<sup>2</sup>" They first surfaced in November of 2017 when Reddit users began uploading digitally falsified videos, or deepfakes, of celebrities<sup>3</sup>. Since then, they've experienced an exponential rise in popularity and, with the help of artificial intelligence, have become increasingly realistic and, thereby, even more dangerous.

This fraudulent media poses a significant threat to the success of the Sustainable Development Goals (SDGs), particularly SDG16 and SDG17, because it can incite new and enhance existing international conflicts and thus jeopardize global political stability. A prime example of this is a deepfake published in March of 2022. Specifically, less than a week after Russia had begun its full-scale invasion of Crimea, a video of Ukrainian president Volodymyr Zelenskyy urging his people to surrender appeared on Ukraine's national news outlets<sup>4</sup>. Although the video was later identified as a deepfake and removed from the country's official website, the damage was already done. In the short time it was up, the video sparked widespread confusion and slightly delayed the Ukrainian response to the invasion.

In another example, just hours before a critical election, an audio recording went viral on social media of the leader of the Progressive Slovakia Party, who could be heard plotting to rig the election and saying he planned to raise taxes. The audio was confirmed to be an AI-generated deepfake, but the damage had already been done; the Progressive Party was unable to capture the majority of seats.<sup>5</sup> The most dangerous part of these recent examples? As the Council on Foreign

<sup>&</sup>lt;sup>1</sup> Stryker, Cole, and Eda Kavlakoglu. 2024. "What Is Artificial Intelligence (AI)?" IBM. August 16, 2024. https://www.ibm.com/topics/artificial-intelligence.

<sup>&</sup>lt;sup>2</sup> Merriam-Webster. 2024. "Definition of DEEPFAKE." <u>Www.merriam-Webster.com.</u> 2024. https://www.merriam-webster.com/dictionary/deepfake.

<sup>&</sup>lt;sup>3</sup> Payne, Laura. 2023. "Deepfake | History & Facts | Britannica." Www.britannica.com. September 5, 2023. https://www.britannica.com/technology/deepfake.

<sup>&</sup>lt;sup>4</sup> Byman, Daniel, Chongyang Gao, Chris Meserole, and V Subrahmanian. 2023. "DEEPFAKES and INTERNATIONAL CONFLICT." <a href="https://www.brookings.edu/wp-content/uploads/2023/01/FP\_20230105\_deepfakes\_international\_conflict.pdf">https://www.brookings.edu/wp-content/uploads/2023/01/FP\_20230105\_deepfakes\_international\_conflict.pdf</a>.

<sup>&</sup>lt;sup>5</sup> Linday, James. 2024. "Election 2024: The Deepfake Threat to the 2024 Election | Council on Foreign Relations." Www.cfr.org. 2024. https://www.cfr.org/blog/election-2024-deepfake-threat-2024-election.

Relations puts it, it's hardly ever clear who was behind these deepfakes. It could have been rival political parties, foreign actors, lone individuals with a grudge, or pranksters seeking to show off their talents. Clearly, there is an urgent need to balance free speech and expression with the suppression of deepfakes for the security of elections.

One initiative the global community can look to follow comes from the United Nations Education, Security and Cultural Organization (UNESCO). UNESCO's Judges Initiative uses Massively Open Online Courses (MOOCs) to create a program that provides an outline to regulate AI in the justice system called "AI and the Rule of Law." The courses focus on the ethical implications of AI usage in court and general capacity building for judicial systems to handle deepfake cases. Frameworks like these can help states find their own ways to foster political stability in the face of widespread deepfakes of political figures.

#### AI in Healthcare: Algorithms with a Heartbeat

Contrary to its role in the political sphere, artificial intelligence has served as a tremendous asset in healthcare innovation--discoveries, like predicting protein structures, that had previously taken entire lifetimes of research can now be made in a matter of minutes. In particular, AI facilitates the processes of providing diagnoses, developing medications and vaccines, predicting disease outbreaks, performing minimally invasive surgeries<sup>7</sup>, and—what has been especially exciting to healthcare professionals—administering precision medicine.

Corporations like Johnson & Johnson have deemed "precision medicine" the future of healthcare because it counteracts the faulty logic of one-size-fits-all prescriptions and treats people as they're meant to be treated: as individuals. This type of personalized patient care that utilizes patients' specific gene profiles to better direct diagnosis and treatment<sup>8</sup> has been in the works for over two decades since the completion of the Human Genome Project<sup>9</sup> but has only begun to truly flourish in recent years. New AI algorithms enable physicians and researchers to more accurately analyze patient DNA and create targeted treatment plans to address genetic variations.

Furthermore, AI allows for a deeper analysis of individual healthcare needs and diseases. For instance, through advanced data science strategies, scientists could develop a holistic understanding of the SARS-CoV-2 virus and produce corresponding vaccines in less than two years. Together, the expanded knowledge of human genetics and viral properties has the potential to substantially progress the world toward its goal of Good Health and Well-Being (SDG3).

<sup>&</sup>lt;sup>6</sup> UNESCO. n.d. "AI and the Rule of Law: Capacity Building for Judicial Systems | UNESCO." <u>Www.unesco.org</u> <u>https://www.unesco.org/en/artificial-intelligence/rule-law/mooc-judges</u>.

<sup>&</sup>lt;sup>7</sup> Tomberlin, Carrie. 2023. "Revolutionizing Healthcare: How Is AI Being Used in the Healthcare Industry?" Los Angeles Pacific University. December 21, 2023. https://www.lapu.edu/ai-health-care-industry/.

<sup>&</sup>lt;sup>8</sup> Brody, Barbara. 2023. "Are Super-Personalized Solutions the Future of Healthcare?" Content Lab U.S. September 14, 2023. <a href="https://www.ini.com/innovation/are-super-personalized-solutions-the-future-of-healthcare">https://www.ini.com/innovation/are-super-personalized-solutions-the-future-of-healthcare</a>.

<sup>&</sup>lt;sup>9</sup> Collins, Francis S., and Leslie Fink. 1995. "The Human Genome Project." *Alcohol Health and Research World* 19 (3): 190–95. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6875757/.

#### Learning Reimagined: The Role of AI in Education

In conjunction with AI's presence in political and healthcare fields, AI also notably carries an extensive role in education systems worldwide. AI and education have been spoken about collectively due to the longstanding impact one has on the other, both positively and negatively. Despite controversies around whether it should be used, AI has proved that its use can bring constructive benefits to today's teaching practices. According to UNESCO, AI's involvement in education systems fosters greater inclusion and diversity by providing innovative teaching methods that broaden the approach for AI to be human-centered in a manner that creates a space for people of different backgrounds and cultures to have a space they can share educationally. Additionally, implementing AI in certain teaching areas, for example, through lesson plan creation or assignments, enables more personalized learning for everyone to maximize the benefits they receive when they learn. To exemplify, Gradescope, an American technology company that functions online, uses AI to allow teachers to assign multiple-choice assessments to students and give immediate feedback in return<sup>10</sup>. This inclusion of AI in education has made it easier for teachers to access ways to help their students, give more attention to personalized lesson plans, and cultivate a space that encourages student success. These aspects of artificial intelligence's increased use in education systems bring about several positive impacts, especially in bringing us closer to fulfilling SDG4, which aims to ensure equitable education and promote lifelong learning opportunities for all.

On the contrary, using AI for educational purposes has not come without hesitation. People have argued that the risks of including AI for learning purposes outweigh any potential benefits it may have because it creates a loss of originality. More specifically, if AI becomes normalized in the educational setting, students are inclined to use it in ways other than its intended purpose, such as writing papers, creating ideas, giving answers, and solving problems. Educators opposed to AI growth have been outspoken in their belief that these AI features are detrimental to student growth as they devalue essential literary and problem-solving skills. Rather than helping students understand concepts or ideas, AI generates answers that students cannot learn or benefit from. Despite differences in opinion, AI is growing in its uses and practicality, making it more difficult for people to find a suitable medium in how it is used. While some believe its ability to offer inclusion and tailored learning objectives is vital to learning growth, others believe this would slow human progress and prevent long-term learning goals.

#### Case Study: ChatGPT and the Growth of AI Conglomerates

At the end of 2022, OpenAI released the original version of ChatGPT to the public, leading to its eventual global prominence as a tool to increase learning and productivity<sup>11</sup>. This form of generative AI quickly revolutionized the speed and ease at which people could process

<sup>&</sup>lt;sup>10</sup> Goteka, Panashe. "Benefits of AI Revolutionizing Education in the Asia Pacific." Mobile Guardian, September 18, 2024. Goteka, Panashe. "Benefits of AI Revolutionizing Education in the Asia Pacific." Mobile Guardian, September 18, 2024.

https://www.mobileguardian.com/benefits-of-ai-revolutionizing-education-in-the-asia-pacific/. 

11 Introducing chatgpt. Accessed September 19, 2024. https://openai.com/index/chatgpt.

and produce written content. ChatGPT quickly became a core utility for people worldwide, making tasks like solving equations, translating information, writing software, and drafting documents significantly easier and more time-efficient.

Then, in May 2023, Nvidia's development of AI chips and algorithms would lead it to become one of the few companies in the world to be valued at over \$1 trillion USD. 12 This development assisted in establishing Nvidia's reputation as no longer a computer component manufacturer but rather an AI conglomerate. As many conglomerates invest in AI and continue to grow, they attain not only a higher value but also an increase in global influence. Companies such as Amazon have also been heavily investing in the development of AI as well. In a recent address to employees this past August, Amazon's CEO Matt Garmin even made the bold claim that software developers may no longer need to write code within the next few years. 13 Due to Amazon's status as a software giant and one of the highest-valued companies in the world, this sort of prediction could have massive repercussions, potentially restructuring the global job market to an extreme degree.

A substantial increase in usage and dependence on ChatGPT and other AI tools in the present era is not without downsides. According to a study by researchers at Stanford, ChatGPT's performance has become worse over time. As there is no clear reason for this decline in apparent intelligence, this is all the more reason why increased dependence on such tools could prove detrimental to the quality of internet information and overall productivity and intelligence of the population in the long run. A tool that is often used in place of reliable sources is thus unreliable in itself. Nonetheless, an article from CNN reports that several companies, such as Dropbox and Duolingo, have attributed many recent layoffs to AI. While many of the world's largest companies believe AI could lead to the creation of a slew of new jobs, the article notes that economists from Goldmann Sachs anticipate the loss of more than 300 million jobs globally, with white-collar workers being the primary victims. In the primary victims.

The growth of AI conglomerates worldwide has altered the way of life and society for many people, making specific tasks and jobs more efficient while also becoming the leading reason behind the loss of employment and human involvement in day-to-day tasks. AI's use through machines such as ChatGPT, Amazon, Duolingo, etc., has enhanced the efficiency at which people can learn, understand, and communicate, serving as a significant tool for individuals today. These generative machines have become a way for people to learn speedily and more effectively, as AI curates ways for people to understand and digest information in a way where they understand best. In having these features, AI's use in these companies brings society closer to fulfilling SDG 4 concerning access to quality education for everyone. Conversely, this rapid growth has also introduced the decline of millions of jobs, with an even

<sup>&</sup>lt;sup>12</sup> "Nvidia Touches \$1 Trillion Market Cap as Chipmaker Rides AI Wave." 2023. Yahoo Finance. May 30, 2023. https://finance.vahoo.com/news/nvidia-touches-1-trillion-market-cap-as-chipmaker-rides-ai-wave-133530381.html.

<sup>&</sup>lt;sup>13</sup> Barrabi, Thomas. 2024. "Amazon Software Engineers May Be Forced to Learn Skills besides Coding Thanks to AI: Cloud Chief." New York Post. New York Post. New York Post. August 21, 2024. <a href="https://nypost.com/2024/08/21/business/amazon-software-engineers-could-stop-coding-soon-due-to-ai/">https://nypost.com/2024/08/21/business/amazon-software-engineers-could-stop-coding-soon-due-to-ai/</a>. <sup>14</sup> Chen, Lingjiao, Matei Zaharia, and James Zou. 2024. "How Is ChatGPT's Behavior Changing over Time?" *Special Issue 5: Grappling with the Generative AI Revolution*, no. Special Issue 5 (March). <a href="https://doi.org/10.1162/99608f92.5317da4.7">https://doi.org/10.1162/99608f92.5317da4.7</a>

<sup>&</sup>lt;sup>15</sup> Cooban, Anna. 2024. "AI Will Shrink WorkForces within Five Years, Say Company Execs | CNN Business." CNN. April 5, 2024. https://www.cnn.com/2024/04/05/business/ai-job-losses/index.html.

more significant amount projected to be lost at the hands of artificial intelligence. Allowing machines to replace jobs typically occupied by humans presents the risk of severely deteriorating human prosperity, threatening achieving SDGs 8, 9, and 10.

### **Balancing AI Innovation with Environmental Responsibility**

Besides the anticipated loss of jobs, AI has been proven to negatively impact the environment, primarily due to its significant energy consumption. Training large AI models, particularly those involving deep learning, requires vast computational power, which demands substantial electrical energy. This energy often comes from non-renewable sources, contributing to increased carbon emissions. According to a 2019 study by the University of Massachusetts Amherst, training a single AI model can emit as much carbon as five cars over their lifetimes<sup>16</sup>. Another potential danger to consider is the carbon footprint of AI and the exacerbation of environmental inequities.

As Harvard Business Review argues, current AI deployment strategies can worsen environmental inequality, especially in regions with socioeconomic challenges. For example, techniques like geographical load balancing, which aim to reduce energy use or carbon emissions, may unintentionally increase water demand in areas facing water shortages, which adds undue stress to local resources.<sup>17</sup> Additionally, increased electricity demand can cause grid congestion, raising energy prices for nearby communities and disproportionately impacting residents by increasing utility costs. The ever-growing environmental footprint of AI highlights the need for more energy-efficient AI technologies and practices to mitigate the ecological impact associated with the advancement of artificial intelligence.

#### AI Ethics: Cultural Perspectives on Technology and Society

When navigating and continuing to expand on recently developed technology, especially something as controversial as AI, it's imperative to understand there can be and already are severe impacts on our culture, structural processes, and social norms. The balance of relativism versus universalism must be considered to analyze critical sociocultural issues. Relativism is the idea that ethical truths depend on the individuals and groups holding them¹8. Conversely, universalism is the idea that something has a universally accepted characteristic. Thus, there is much debate over whether AI is relatively or universally beneficial to human prosperity and whether it abides by a state's moral code. Although homogenous populations are more prone to shared ethics, attitudes, and logic, heterogeneous populations (typically Western nations) usually have similar ideals in the three analytical fields. It is important to note that states within the global North have entirely different experiences from those of the Global South, and the term for

<sup>&</sup>lt;sup>16</sup> Hao, Karen. 2019. "Training a Single AI Model Can Emit as Much Carbon as Five Cars in Their Lifetimes." MIT Technology Review. MIT Technology Review. June 6, 2019.

https://www.technologyreview.com/2019/06/06/239031/training-a-single-ai-model-can-emit-as-much-carbon-as-five-cars-in-their-lifetimes/. 

17 Ren, Shaolei, and Adam Wierman. 2024. "The Uneven Distribution of AI's Environmental Impacts." Harvard Business Review. July 15, 2024. 
https://hbr.org/2024/07/the-uneven-distribution-of-ais-environmental-impacts.

<sup>&</sup>lt;sup>18</sup> "Relativism Definition & Meaning." Merriam-Webster. Accessed September 19, 2024. https://www.merriam-webster.com/dictionary/relativism.

human prosperity could vary wildly between the two. To begin, one must consider the direction in which human craftsmanship is heading. Certain states may be putting the cultivation and propagation of AI on a higher pedestal than other domestic concerns, which some may consider a breach of moral code. A grave consternation is the impact of direct or indirect violence on the environment. Chip manufacturing for AI costs millions of dollars and pumps fossil fuels into public air and waterways, endangering underrepresented and marginalized people. Additionally, the training process for a single AI model can consume thousands of megawatthours of electrical energy and emit hundreds of tons of CO2<sup>19</sup>. Furthermore, educational and workplace dishonesty has skyrocketed with the insurgence of AI platforms such as Chat GPT and Microsoft Copilot. Ensuring young students are prepared for real-world employment is crucial and challenging without proper stipulations. If AI is to replace human ingenuity and cognitive thinking, society must also determine how to ensure efficient and adequate aid in fields such as medicine, litigation, and engineering.

#### **Conclusion**

Artificial intelligence is the dystopian, science-fiction fantasies of our childhoods turned into reality. It streamlines the processes of healthcare and education and slashes labor costs. However, like most innovations, AI also presents challenges such as security breaches, environmental degradation, and the spread of misinformation. While perspectives may vary on whether or not AI is genuinely beneficial, the fact is that it's here to stay, so it is the responsibility of the United Nations and each of its member states to harness it as a tool for good rather than for ill. States must work collaboratively to develop comprehensive solutions that both mitigate AI's potential risks and capitalize on its rewards so that come January 1, 2030; the UN can proudly check off all 17 boxes and create a new set of goals that strive for an even better future

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<sup>&</sup>lt;sup>19</sup> "The Uneven Distribution of Ai's Environmental Impacts." Harvard Business Review, July 15, 2024. https://hbr.org/2024/07/the-uneven-distribution-of-ais-environmental-impacts.

#### **Guiding Questions for Research**

- 1. How will your country preserve job security for roles made redundant by automation and AI?
- 2. What advancements have AI made in healthcare systems in your country?
- 3. What policies does your country plan to implement to combat potentially dangerous deepfakes?
- 4. Will local economic development be harmed or helped by AI? What investments has your country made in AI development?
- 5. To what degree has your country integrated AI into its national institutions?

#### **Guiding Questions for Debate**

- 1. How can AI be utilized as a tool to improve the quality of living both nationally and internationally?
- 2. What frameworks can be implemented globally to prevent the weaponization of AI?
- 3. Does AI belong in education, especially in primary and/or secondary schools? Why or why not?
- 4. How can the international community reduce the environmental impacts of the rapidly developing AI race?
- 5. What role should non-state actors, like transnational corporations, play in mitigating the harmful effects of AI?