United Nations Educational, Scientific and Cultural Organization

Daniel Cano and Martina Urazán

SIMULATION 2024

COMMITTEE GUIDE

UNESCO

CCBMUN XXII

Contents

1. Presidents' Letter

Honourable Delegates,

It is truly a pleasure to welcome you all into our committee for CCBMUN XXII. We are Daniel Cano and Martina Urazán, 11th and 10th grade students at Colegio Bolivar. We both have various models as delegates, this is Martina's second time presiding at CCBMUN and Daniel's first. As delegates, we join the MUN in the hopes of socialising, improving our communication skills, and more importantly, learning about politics in a way that is meaningful. Therefore, we will try to make this committee enticing while also upholding a rigorous academic level. Aside from any award or recognition, take this upcoming model as an opportunity to grow; try to do things you normally wouldn't, and overall, try to have fun in the model.

Regarding our topics, we chose them as we believe they are of utmost importance given the current world circumstances. With AI being a rapidly growing tool, we believe it's important to debate and therefore educate students on the subject. Regarding journalism, given the amount of current ongoing conflicts, it is our belief that students should know more about the struggles journalists will go through in order to be able to report on events. It is important for students to consider possible ways to protect them as without journalists, news networks wouldn't work.

We will both be expecting great things from you delegates. If you have any queries or need some help, don't hesitate to contact us through the committee email (unesco@ccbcali.edu.co). We truly hope you find CCBMUN, and especially the UNESCO committee to be an exceptionally memorable experience for you.

Daniel and Martina
UNESCO Chair
unesco@ccbcali.edu.co

2. Simulation Topic: *The Artificial Intelligence Race*

Written by Lucas Hernández and Daniel Nuñez for CCBMUN XIX, updated in October 2024

I. History/Context

The fundamental basis of the construction of artificial intelligence has been seen throughout history for over 100 years, but even ancient Greek literature has experimented with the concept of machines that lack consciousness roaming the earth. Today, what those fictional stories imagined as a simply fantastical reality is becoming possible. In the 17th Century, philosophers like Thomas Hobbes believed that rational thought comes from symmetry, and could be traced back to mathematical patterns and equations. With this proposition, rationality is simply the ability to connect two different dots of information and come to a reasonable conclusion; this is what many different types of algorithms, such as facial recognition softwares do to complete their goals. In 1689, Leibniz took Hobbes' ideas and developed them further, as he realised that data could be greatly simplified; he developed the beginnings of what we today know as binary language.

In the 19th Century, the Industrial Revolution began, marking the moment when machinery became essential for the production of goods. The Industrial Revolution marked a new economic age for the world, as it completely changed the process of creating artefacts due to the advantages that machinery had over manual labour. Suddenly, workers became more specialised than ever, and their task was only possible to complete with the help of machines. The Industrial

Revolution marked a turning point for humanity in the development of machinery, paving the way for rapid global trade. Since that time, technological advancements have increased exponentially in recent years.

Modern computing was born in the 1840s with Charles Babbage's mechanical analytical engine, a complex machine that was programmed to find logarithms and trigonometric functions. A decade later, George Boole laid the foundation for computing-based artificial intelligence. Boole developed Boolean logic. This consisted of three simple words; "Or," "And," or "Not" that, when combined, can create only 2 possible answers, whether true or false. This was the beginning of computational reasoning.

In the 1950's, Alan Turing developed the philosophy of artificial intelligence, what is now known as the Turing test. The test involves getting a human and a machine to answer a series of questions; if the person asking the questions cannot tell whether the answer came from another human or from a machine, that machine is considered to be as smart as the human.

Around the same time, Cloud Shannon developed a theorem that claimed that essentially all of the information of the universe is computational. In 1950, the three laws of robotics were created, essential laws that are still used today. These laws were created as the philosophers involved with artificial intelligence realised that future generations would be capable of producing machines and algorithms so complex that they would be capable of causing serious problems for humanity.

The three laws are shown below:

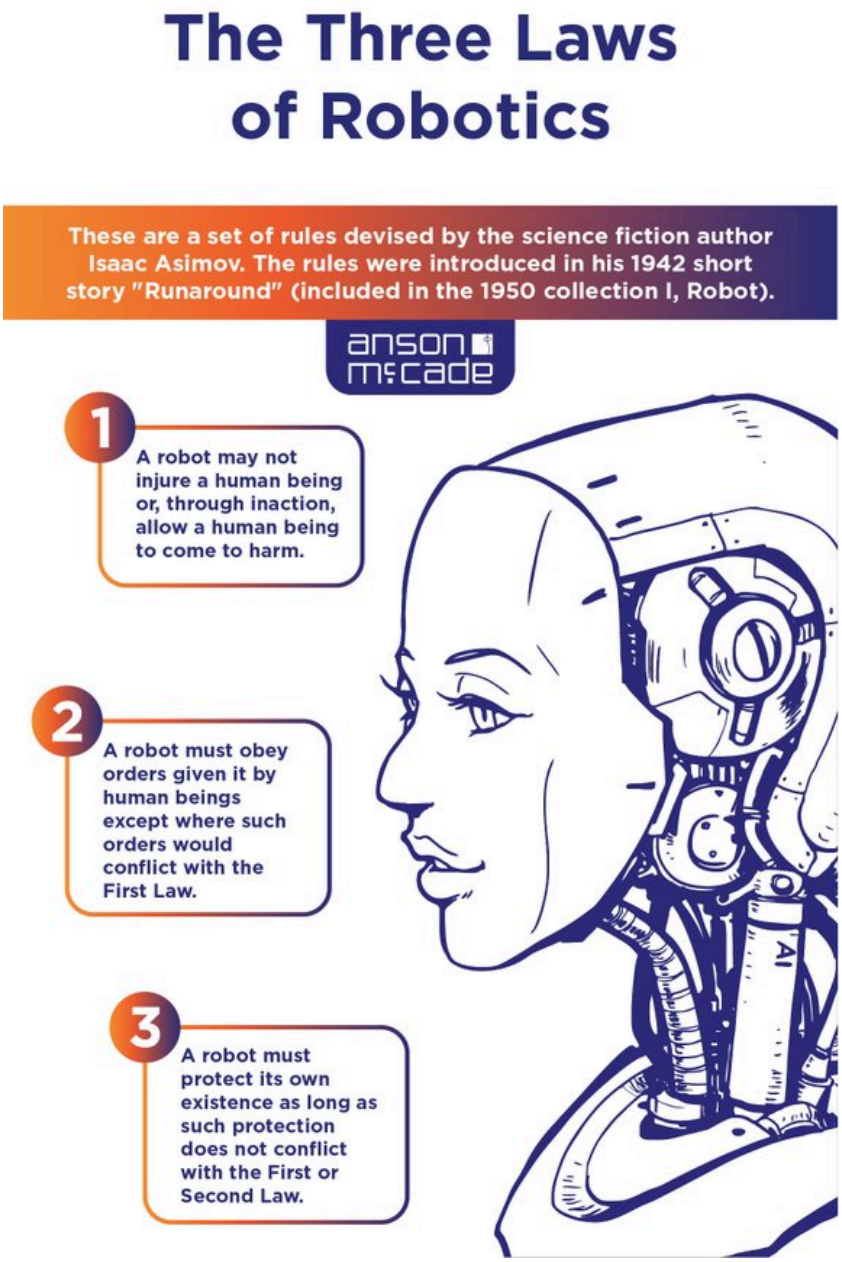

Figure 1: 3 laws of robotics (*Jeffco User Identification Portal*, 2024)

In 1951, the first AI based programme was written and in 1955 the first self-learning game was programmed. As the 20th Century advanced, AI-based technological advancements continued every year: in 1959 the first AI lab was opened; in 1961 the first robot was introduced into the GM assembly line; and in 1964 people saw the first demonstration of an AI that understood human language. These advancements continue further into the century, but a notable event can be seen in 1997 when an artificial intelligence machine won a chess match against the world champion. The argument about artificial intelligence suddenly changed; it was no longer about its possibility to surpass human intelligence but about when that would become possible. Two years later, the Massachusetts Institute of Technology (MIT) AI lab was able to replicate emotions and implement them into an artificial intelligence machine.

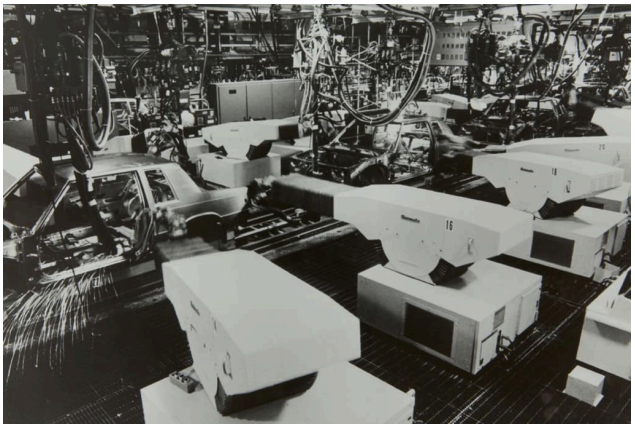

Figure 2: First robot used on production line (Sapkota, 2021)

The 2000s marked the age of automation; the first models of fully autonomous cars were being developed by companies such as Google. This technology started becoming accessible to the public, becoming an integral part of many aspects of life. At the end of that decade, many industries were using artificial intelligence to achieve their goals.

II. Current Situation

AI has been increasing rapidly the last two decades due to the huge impact electronic devices have had on our daily lives. Governments realise that many of the issues we are currently facing could be solved with the support of artificial intelligence. According to Russia's president, Vladimir Putin, "The country with the most advanced AI will be ruler of the world". (Putin, V. 2017) For this reason, most developed countries are making big investments in this new technology. Nowadays, countries like China and the US are the frontrunners to become the global leaders in AI research. Further down the list, nations such as Japan, South Korea, Russia, Germany, and France among others are also trying to reach this goal.

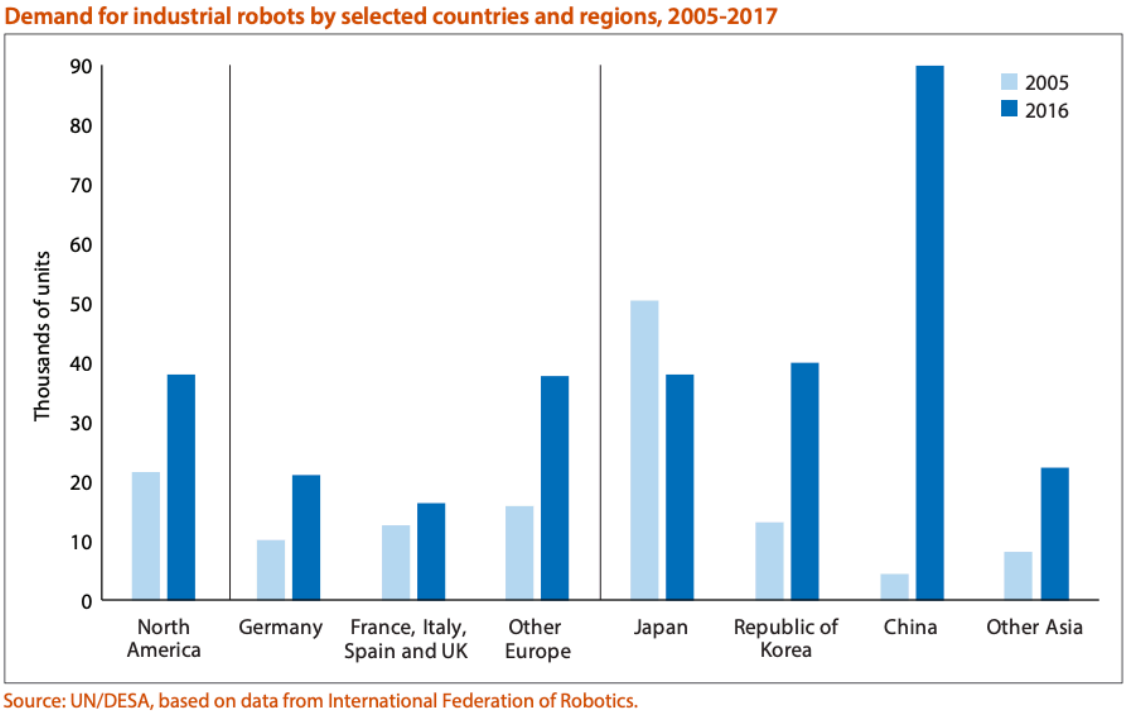

Figure 3: Demand for industrial robots (Bruckner et al., 2017)

Notwithstanding, AI will benefit only countries that are capable of creating and maintaining this type of technology. Many countries from South America and developing countries from the Middle East, for example, have been more cautious about AI; they are worried that it seems risky to work with this new technology, especially with the ones that lack strict human control.

Big companies are beginning to implement AI for their product manufacturing since it's cheaper and more effective than having a large amount of personnel. Thus, it leaves many of the people of low economic status unemployed. AI contains a high level of risk for nations since it could create an economic imbalance for many people. Big companies such as Amazon are already starting to use this method; the company is starting to make their deliveries with a drone, and it is expected that for the future all of their orders will work along these lines. Despite the fact that AI is making a lot of jobs redundant, the job-destroying effects of new workplace technology are counterbalanced by job creation effects in other areas. However, these will only appear in the long term. Developing countries have shown their unconformity with AI since the biggest public fear is that robots and AI will replace human jobs on a large scale, resulting in mass unemployment and a growth in inequality.

According to the World Bank Blog, "*It took 75 years for fixed telephones to reach 100 million users globally. In contrast, mobile phones achieved this milestone in just 16 years, and the internet took only 7 years. The Apple store took 2 years and strikingly, ChatGPT reached this number in a mere two months*" (Fan & Zhenwei Qiang, 2024).

AI can help companies to boost their productivity; now it is common to see chatbots, for example, which are used to answer questions in customer services. AI is currently used in healthcare, education, agriculture, government and company administration, and new uses are being found for AI every day.

Although there are many advantages to using AI, there are important drawbacks. Most of the advances are being made by large technology companies in more developed countries, and this may have negative effects on the economies of

developing nations. Take the case of call centres, which are often outsourced to developing countries; chatbots are increasingly being used to answer simple queries, and their ability to tackle more complex problems improves every day. As more chatbots are used, fewer people need to be employed. In the United Kingdom, for example, the main telecommunications company, BT, announced that it would be cutting 55,000 jobs by 2030. IBM has said that about 30% of clerical jobs will disappear, although new jobs will also be created. (Goldberg, 2023). Also, if large companies are in control of AI products, this could lead to a dangerous level of control by private companies in areas such as government decision-making and citizens' rights to privacy.

It is important that countries consider how the race to include AI in the job market will affect future employment. They need to prepare students in schools and universities for a world in which AI is a common tool. As robots become more sophisticated and AI is utilised more and more, it is also important to consider the Three Laws of Robotics, as many ethical issues arise from replacing human decision-making processes with automated processes

III. Key points of the debate

- International AI regulations for the stability of global politics
- The role of AI in widening the gap between developed and developing nations
- Development of AI to help developing nations
- The safe and ethical development of AI
- Protecting citizens' rights and jobs with the advancement of AI
- Preparing students at school and university for a world in which AI is a commonly-used tool

IV. Guiding questions

1. What are your nation's current capabilities and achievements in AI research and development?
2. How does your nation view the potential economic and strategic benefits of leading in AI technologies?
3. What ethical considerations and regulations does your nation prioritise in the development and deployment of AI?
4. How is your nation investing in AI education, talent development, and research infrastructure to stay competitive in the AI race?
5. What partnerships or collaborations is your nation pursuing with other nations, companies, or institutions to advance its AI capabilities?
6. How does your nation address concerns about job displacement, data privacy, and security in the context of advancing AI technologies?
7. What role do international organisations, such as the United Nations, play in shaping your nation's AI policies and strategies?

V. Bibliography

Bruckner, M., LaFleur, M., & Pitterle, I. (2017). FRONTIER ISSUES The impact of the technological revolution on labour markets and income distribution CONTENTS. https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/publication/2017_Aug_Frontier-Issues-1.pdf

Department of Economic & Social Affairs. (2017, July 31). FRONTIER ISSUES The impact of the technological revolution on labour markets and income distribution CONTENTS. https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/publication/2017_Aug_Frontier-Issues-1.pdf

Fan, Q., & Zhenwei Qiang, C. (2024). Tipping the scales: AI's dual impact on developing nations. World Bank Blogs. https://blogs.worldbank.org/en/digital-development/tipping-the-scales--ai-s-dual-impact-on-developing-nations?cid=SHR_WBLTweetable_EN_EXT

Goldberg, E. (2023, July 19). "Training My Replacement": Inside a Call Center Worker's Battle With A.I. Nytimes.com; The New York Times. https://www.nytimes.com/2023/07/19/business/call-center-workers-battle-with-ai.html#

United Nations. (n.d.). Will robots and AI cause mass unemployment? Not necessarily, but they do bring other threats. Retrieved October 18, 2021, from https://www.un.org/en/desa/will-robots-and-ai-cause-mass-unemployment-not-necessarily-they-do-bring-other

United Nations. (n.d.-a). Towards an Ethics of Artificial Intelligence. Retrieved October 18, 2021, from https://www.un.org/en/chronicle/article/towards-ethics-artificial-intelligence\

Figure 1: Jeffco User Identification Portal. (2024). Twimg.com. https://pbs.twimg.com/media/DfEhtZdUEAAm10B?format=jpg&name=900x900

Figure 2: Sapkota, A. (2021). The Unimate-First digitally operated and a programmable robot. Journal. https://vocal.media/journal/the-unimate-first-digitally-operated-and-a-programmable-robot

Figure 3: Bruckner, M., LaFleur, M., & Pitterle, I. (2017). FRONTIER ISSUES The impact of the technological revolution on labour markets and income distribution CONTENTS. https://www.un.org/development/desa/dpad/wp-content/uploads/sites/45/publication/2017_Aug_Frontier-Issues-1.pdf