



MACMUN 2023



G20

Background Guide

Welcome Letter

Dear Delegates,

It is our absolute pleasure to welcome you to the G20 committee of the eighth version of McMaster Model United Nations (MACMUN). Your chairs are Ansh Tiwari and Dia Martinez Gracey. Joining us on the Executive Board are our crisis analysts David Saldanha and Emmalee Parago.

The focus of G20 is international cooperation on the most important aspects of the international economic and financial agenda. It consists of yearly summits in which world leaders come together to discuss various pressing issues. At this conference, there are two agendas for G20:

- i. Addressing the Fallout of the Global Supply Chain Crisis of 2021
- ii. Addressing Ethics in the Evolving Technological Landscape.

We believe that through lively discussions and debates, you will be able to reflect on various aspects of these agendas and come up with solutions to the ongoing issues. Apart from the agendas, we will also have crises in our committee. A crisis is a sudden situation that comes up from any part of the world and must be resolved by the delegates in a specified time frame. Your crisis analysts will introduce you to the scenarios and guide you through the crisis sessions.

We hope that you have a wonderful time on this committee and that it proves to be a great learning experience for you. If you have any questions or concerns, please do not hesitate to contact us by email at g20@macmun.org.

Sincerely,

Ansh Tiwari & Dia Martinez Gracey
Chairs, G20
MACMUN 2023

Meet Your Committee Staff



Dia Martinez Gracey - Chair
she/her



Ansh Tiwari - Chair
he/him



David Saldanha - Crisis Analyst
he/him



Emmalee Parago - Crisis Analyst
she/her

Committee Mandate

The Group of 20 (G20) is a forum for economic cooperation between the world's major economies. The goal of the G20 is to ensure global economic prosperity. Expanding on the Group of Seven (G7), founded in 1975 with a similar mandate, in 1999 the G20 was created in with the goal of including more nations in important global discussions. The G20 is made up of 20 members: Argentina, Australia, Brazil, Canada, China, European Union, Germany, France, India, Indonesia, Italy, Japan, Mexico, Russia, Saudi Arabia, South Africa, South Korea, Turkey, the United Kingdom, and the United States of America. Together, they make up 80% of the world's gross domestic product (GDP) and 60% of the world's population.¹

Each year, G20 members meet at a summit in rotating host nations to discuss pressing global issues, from an overall economic perspective. There are engagement groups created on a variety of pertinent topics, including macroeconomic policies, global financial stability, sustainable development and climate change. The objectives of the G20 include policy coordination between its members in order to achieve global economic stability, sustainable growth; promoting financial regulations that reduce risks and prevent future financial crises; and modernizing international financial architecture.

Simulation Style and Composition of the Committee

Two chairs will be present to moderate debate and ensure that a diplomatic environment is maintained. The chairs will have the authority to open and close committee sessions, will assist delegates with setting the agenda, and will manage the list of speakers. The dias will also recognize any points or motions made by delegates on the floor. Delegates must remember that the chairs have the final rule on any disputed points or motions, and that all draft resolutions must be approved by the dias before they are presented before the committee.

Pages will be present in the committee room to allow delegates to communicate with one another through the passing of notes. If used strategically, note passing can be used by delegates to work with others in the room to brainstorm ideas for potential draft resolutions. Delegates should be aware that all notes will be screened by the pages before they are delivered to the respective delegate.

Each delegate in this committee will represent a different member state of the G20. Delegates will submit a position paper detailing their country-specific research on both topics prior to the conference. Individual research is important to ensure that delegates arrive to committee sessions prepared with sufficient knowledge that will allow them to actively engage in discussions.

¹ *Understanding Supply Chain Disruptions During the COVID-19 Pandemic*. (2022, February 23). McGill Business Law Platform. <https://www.mcgill.ca/business-law/article/understanding-supply-chain-disruptions-during-covid-19-pandemic>

Overall, delegates should remember to only raise points to the committee that agree with their country's foreign policy. This will ensure that the committee is best able to emulate potential real-world discussions.

Topic #1: Addressing the Fallout of the Global Supply Chain Crisis of 2021

Introduction

The pandemic has alerted businesses and countries to the fragility of global supply chains. Heightened demand, trade restrictions, factory closures, rising freight rates, and reliance on ‘just-in-time’ inventory systems have led to global shortages and inflation.² The disruption to supply chains has become more widespread, growing from an industrial problem into a threat to economic stability.³

A supply chain is a network of individuals and companies who are involved in creating a product and delivering it to a consumer. The global supply chain has seen enormous changes over the last 100 years. Supply chain disruptions lead to shortages of key goods, price inflation, factory closures, unloaded shipping containers, and negative effects on a nation’s economic well-being. They also affect a wide spectrum of products, from expensive goods, such as cars and electronics, to necessities, such as food, medicines, oil and gas – all of which has an impact on the cost of living. The significant and compounding effects of supply chain bottlenecks and rising freight costs on prices, particularly for producers and manufacturers that import products like fertilizer and construction materials, have serious economic implications. Economies in the Asia Pacific, many of which rely heavily on imported goods, are vulnerable to the consequences of supply chain disruption for production and consumption.

Supply bottlenecks hindered the industrial recovery and boosted inflation in many economies last year, as a fast recovery in goods demand collided with disruptions to production and distribution.⁴ When mobility restrictions were introduced in the spring of 2020 to control Covid-19, consumers cut spending on services and started buying more manufactured goods instead. The reopening of economies initially boosted manufacturing output, but renewed lockdowns and shortages of intermediate inputs from chemicals to microchips caused the manufacturing recovery to stall.⁵ Where bottlenecks result primarily from the interaction of strong demand and inelastic supply, only a softening in demand can alleviate inflation pressures in the short run⁶.

Governments around the world can play a role in facilitating smooth trade and putting in place temporary supportive measures to help industries struggling with supply chain disruption.

² *Supply Chain Disruption*. FTI Consulting. (2022, September 1). Retrieved January 30, 2023, from <https://www.fticonsulting.com/insights/articles/supply-chain-disruption-risk-global-economic-recovery>

³ FTI Consulting, *Supply Chain Disruption*

⁴ Zhou, J., Spector, M., Hansen, N.-J., Mineshima, A., & Celasun, O. (2022, April 13). *Supply disruptions added to inflation and undermined the recovery in 2021*. CEPR. Retrieved January 30, 2023, from <https://cepr.org/voxeu/columns/supply-disruptions-added-inflation-and-undermined-recovery-2021>

⁵ Zhou et al., *Supply disruptions added to inflation*

⁶ Zhou et al., *Supply disruptions added to inflation*

Understanding the respective roles of increased demand and weakened supply, and how long these shifts may last, is key to getting economic policies right.⁷

History

Prior to the industrial revolutions in Europe and the U.S., the majority of supply chains were local in nature, and typically restricted to regions.⁸ The industrial revolutions started to change things. As railroads were laid, it became faster, easier and cheaper to transport goods over longer distances, although supply chains still tended to be domestic. Since the invention of the internal combustion engine and cars in the late 19th century pioneers started developing trucks to allow for the faster transport of goods by road.⁹

The 1940s saw a consolidation of industrial engineering and operations research into a more centralized system of supply chain engineering. The invention of the shipping container was the greatest revolution in global supply chains during the mid-1950s. Around the same time, transport manufacturers began building vehicles that could transport these containers cross-country. The invention of containerization was one of the main drivers in making global trade cheaper and more efficient. In the 1960s, data computerization started to streamline logistics, creating opportunities in many areas including more accurate forecasting, better warehouse storage, truck routing, and better inventory management.¹⁰

By the 1970s, export processing zones gained popularity and many countries used the mechanism to boost their economy through investment from more advanced nations.¹¹ An export processing zone, or EPZ, is an area, typically a port, set up to increase the convenience of commercial and industrial exports.¹² Incentives such as tax exemptions and a barrier-free importation are the main attractions of an EPZ.¹³ The goals and benefits of an EPZ are growth from foreign exchange earnings through non-traditional exports, creation of jobs to assist in income generation and develop labour skillsets, and the attraction of direct foreign investment.

The 1980s saw supply chain stakeholders, transportation manufacturers, and more building on their successes.¹⁴ New software like flexible spreadsheets, mapping, and route planning made it easier to track costs and maximize profits. This was coupled with other advancements including air freight optimization and supply chain distribution networks. In the past two

⁷ Zhou et al., *Supply disruptions added to inflation*

⁸ *The History and Evolution of the Global Supply Chain*. Blume Global - Supply Chain Solutions. (2021, May 7). Retrieved January 30, 2023, from <https://www.blumeglobal.com/learning/history-of-supply-chain/>

⁹ Blume Global, *The History and Evolution of the Global Supply Chain*

¹⁰ Blume Global, *The History and Evolution of the Global Supply Chain*

¹¹ World Bank Group. (2022, January 14). *COVID-19 to Plunge Global Economy into Worst Recession since World War II*. World Bank. <https://www.worldbank.org/en/news/press-release/2020/06/08/covid-19-to-plunge-global-economy-into-worst-recession-since-world-war-ii>

¹² World Bank Group, *COVID-19 to Plunge Global Economy*

¹³ *What are Export Processing Zones (EPZs)?* (n.d.). <https://www.thomasnet.com/insights/export-processing-zones/>

¹⁴ Blume Global, *The History and Evolution of the Global Supply Chain*

decades, the supply chain has evolved toward a more data-driven, network-driven, and collaborative supply chain ecosystem that drives real value and growth for all participants.¹⁵

Current Situation

The COVID-19 pandemic has disrupted supply chains around the world, while the supply chains have been a vital lifeline to support the response to COVID-19, keeping essential medical supplies, food, and other necessities flowing where they are needed most.¹⁶ The pandemic has tested the ingenuity, resilience, and flexibility of supply chains globally, as they have sought to maintain essential operations.

Having several regions and economies in lockdown, while others emerge into a very different world, the disruption to supply chains continues to be severe. As economies restart, the supply chain will be critical to supplying goods and services quickly, safely, and securely.¹⁷

Countries need to respond rapidly and confidently to shape tactical plan that will mitigate the risks and protect the functioning of global supply chains. There are many challenges faced by global supply chains in the wake of the pandemic, including:

- Supply chains lack global resilience and are breaking down in the face of multi-country disruptions¹⁸
- Supply chain and operations are becoming more costly (e.g. less global and ecommerce fulfillment costs) – and often represent a company’s highest costs¹⁹
- The significant impacts that supply chains and operations have on the planet and society are not meeting stakeholders’ expectations for sustainability¹⁹
- Talent gaps across the supply chain and operations continue to create high dependency on the human workforce¹⁹
- A lack of flexibility inhibits supplier’s ability to address customer demands for personalization and customization¹⁹
- Vital information technology systems continue to be costly, inflexible, and over-reliant on legacy technologies¹⁹

Supply chain disruptions are putting a drag on activity and trade at the global level. These disruptions are caused by many conflicting factors;

Greater Demand: The pandemic triggered a dramatic shift in consumer behavior. Almost overnight, an economy defined by going out became one defined by staying in. Instead of going to the movies, the gym, or a concert, people bought electronics, home

¹⁵ Blume Global, *The History and Evolution of the Global Supply Chain*

¹⁶ *Conversion Guard - Supply Chain Disruption*. Conversion Guard - Supply chain disruption. (n.d.). Retrieved January 30, 2023, from <https://www.conversionguard.com/post/supply-chain-disruption>

¹⁷ *Supply Chain Disruption & How to Respond*. Accenture. (n.d.). <https://www.accenture.com/ca-en/insights/consulting/coronavirus-supply-chain-disruption>

¹⁸ *Six key trends impacting global supply chains in 2022*. (2021, December 14). KPMG.

<https://home.kpmg/xx/en/home/insights/2021/12/six-key-trends-impacting-global-supply-chains-in-2022.html>

¹⁹ KPMG, *Six key trends*

workout gear, and musical instruments. This increased demand for goods has persisted even as businesses have largely reopened and spending on services has recovered.²⁰

Production Delays: Production delays during COVID-19 became headline news. Manufacturers are competing for limited supply of key commodities and logistical capacity, leading to consumers experiencing empty shelves and long purchase lead times⁴. However, the pandemic has intensified the focus on supply chain evaluation and evolution⁴.

High Shipping Costs: Higher demand for goods combined with the lingering effects of pandemic restrictions saw ocean shipping costs skyrocket for much of 2021. For example, the cost of sending a container from China to the United States reached a record high of more than \$20,000.²¹

Growing cargo wait times: The flood of goods coincided with a shortage of workers to move it. Containers piled up on the docks, and ships waited at sea for weeks. Experts say the dearth of truck drivers is due to long-standing issues with wages and working conditions in the industry. Part of the congestion clog comes from a lack of space at the ports which are overwhelmed with large empty shipping containers.²²

Workforce and labour shortages: The COVID-19 period has been riddled with uncertainties, and labour market shortages have further complicated post-COVID-19 recovery scenario for many industries. There is a shortage of both white and blue collared workers, in terms of both skills and numbers.²³

Critical chip shortages: Semiconductor manufacturing was one of the industries most affected by the 2021 supply crunch. Increased demand for electronics during the initial months of the pandemic coupled with a resurgence in demand for cars to create a huge backlog of chip orders.²⁴

Supply chain bottlenecks — congestion and blockages in the production system — have affected a variety of sectors, services and goods ranging from shortages of electronics and autos (with problems exacerbated by the semiconductor chip shortage) to difficulties in the supplies of meat, medicines, and household products.²⁵ As economies get back on their feet, the supply chain crisis has come to the fore as one of the biggest challenges governments now face¹.

²⁰ *Supply disruptions added to inflation and undermined the recovery in 2021*. (2022, April 13). CEPR. <https://cepr.org/voxeu/columns/supply-disruptions-added-inflation-and-undermined-recovery-2021>

²¹ CEPR, *Supply disruptions added to inflation*

²² CEPR, *Supply disruptions added to inflation*

²³ KPMG, *Six key trends*

²⁴ Siripurapu, A. (2021, December 13). *What Happened to Supply Chains in 2021?* Council on Foreign Relations. <https://www.cfr.org/article/what-happened-supply-chains-2021>

²⁵ McGill Business Law Platform, *Understanding Supply Chain Disruptions*

On the supply side, infections reduce labor supply and productivity, while lockdowns, business closures, and social distancing also cause supply disruptions. On the demand side, layoffs and the loss of income (from morbidity, quarantines, and unemployment) and worsened economic prospects reduce household consumption and firms' investment. The extreme uncertainty about the path, duration, magnitude, and impact of the pandemic could pose a vicious cycle of dampening business and consumer confidence and tightening financial conditions, which could lead to job losses and investment.²⁶

As the pandemic continues to disrupt supply chains and negatively impact manufacturing and transport industries, it is expected that financial markets will be volatile. There is a question as to whether this unfolding crisis will have a lasting structural impact on the global economy, or largely short-term financial and economic consequences.²⁷ In either case, it is evident that the disruption of supply chain has the potential to inflict severe economic and financial costs on regional and global economies.

Bloc Analysis

Western Bloc: US, EU, Argentina, Brazil, Canada, France, Germany, Italy, Japan, Mexico, Republic of Korea, South Africa, UK, US, Canada, France, Germany, Italy, UK and other EU countries

They have a strong trade partnership as well as strong influence on the world economy. These countries have to rely on Eastern countries like China for their manufacturing abilities and on Russia and middle east countries for their oil demands. However, the relations between China and the West, as well as the sanctions by Western countries on Russia as a result of the ongoing Russia-Ukraine war has resulted in these countries strongly reducing their reliance on the Eastern countries and enhancing their own production capabilities or shifting their manufacturing industries to countries like Vietnam and Mexico. Additionally, South American nations of Mexico, Argentina and have strong trade relations with US, Canada, and Middle East in terms of agricultural imports. The countries Japan and Republic of Korea, while being in the East, favour the West and have strong trade relations with them.

Eastern Bloc: China, Russia, India, Saudi Arabia

Russia and Saudi Arabia are major oil exporters of the world. However, due to the Russia-Ukraine conflict, Western countries have strongly reduced their oil reliance on Russia. Saudi Arabia seems to be having strong relations with Russia and going quite against the Western interests. China is the largest exporter of goods to the whole world. However, since the start of pandemic, the Western countries are making every effort to reduce their reliance on China in terms of manufactured goods. India, although maintaining a neutral status, has supported Russia in terms of oil imports and has proven not to be entirely in favour of the western interests.

²⁶ Pak, A. (2020). *Economic Consequences of the COVID-19 Outbreak: the Need for Epidemic Preparedness*. Frontiers. <https://www.frontiersin.org/articles/10.3389/fpubh.2020.00241/full>

²⁷ KPMG, *Six key trends*

Others: Indonesia, Turkey, Australia

Turkey is the major exporter of machinery, automobiles, petroleum etc. to Europe and US. However, it is a major importer from China and Russia. Also, the relations between Turkey and the West have deteriorated over time and its policies do not favour the West. Indonesia has strong relations with both West and the East countries. China and Australia are strong trade partners. It also has strong ties with European countries.

Research and Preparation Questions

1. How can your country effectively manage its COVID-19 recovery while also ensuring that exports can be sent to other nations? Will quality need to be sacrificed to get products to their destinations in time?
2. Should your government place its economic focus on maintaining domestic production or begin to rely more heavily on foreign exports? What are the national consequences of this?
3. As threats to the supply chain create a rise in inflation, is it wise to increase spending at home to lessen the effects of rising prices? What industries may be affected by this decision? How can your country go about introducing these policies?
4. Should countries proactively begin developing technology produced by few countries (e.g. Taiwan's semiconductor industry) to bypass any attempt to monopolize? How can the international community act in support of this?
5. When looking to your country's place in the global economy, what unique challenges need to be addressed by other nations and how can cooperation lead to saving a collapsed economy?

Topic 2: Addressing Ethics in the Evolving Technological Landscape

Introduction

The ethics of technology, also referred to as “technoethics”, is a nuanced and controversial field. Even the basic terminology can be contentious, such as the struggle to define even the concept of technology itself. In this guide, we will be using the meaning of technology defined by Canadian scholar Dr. Ursula Franklin, in which she describes technology as practice or “the way things are done”.²⁸ This encapsulates not only physical devices, like combustion engines and cell phones, but also methodologies, such as the scientific method and various cultural practices.

Human societies have grappled with the ethics of technological development throughout time, across the world. Creating new ways of doing things leads to change in a society. Whether that change is deemed to make civilization better or worse depends on the value systems of those making that ethical judgement.

There are many technologies whose creation has contained inherent moral questions; these are often most obvious when pertaining to healthcare. When insulin and antibiotics were discovered, or the polio vaccine created, they were not patented. These technologies were aimed to be available for all because of their ability to help people. However recently, companies have begun to raise prices on insulin and antibiotics, making them inaccessible to many in need. Access, or lack of, to this technology is a large ethical concern.

All technology has ethical implications, particularly when new technology does not benefit everyone in society equally. For example, when the combustion engine was invented and cars began to sell, they were very expensive. This meant that people who could afford a car could now travel further and faster than before, increasing the number of things they could do for work and leisure, while those who could not afford cars were left behind, and thus inequality increased. Though cars are now more affordable, this is still an issue today, where those who cannot afford to drive and need to take long and convoluted bus or walking routes have less time to do things compared to those who can drive (work more, go to doctors and dentist appointments, pick up their children, etc.).

The rise in artificial intelligence may also increase inequality. Since many jobs are being automated and may be able to be replaced by machines, they could replace human jobs. This has happened always, where horse farriers and harness makers were driven out by the invention of the car, and grocery store cashiers are slowly being replaced by self-checkout, but the more advanced algorithms get, the more jobs may be replaced. Nowadays, we are seeing financial advisors replaced by algorithms, as well as analysts who write document summaries, data entry workers, and many more.

²⁸ Franklin, U. M. (2004). *The Real World of Technology*. House of Anansi Press.

This committee will be focusing on how to navigate the ethics of the evolving technological landscape pertaining to our online world, focusing on data privacy and artificial intelligence. This is a topic that affects every person in the G20, and in the world at large.

History

New technology is constantly being developed in all realms of production and leisure, but few technologies cause radical shifts to society. However, there have been waves of technological evolutions throughout time which had major impacts on society, and each has been met by advocacy and resistance.

There are many technological advancements that have drastically changed the way things are done. What these practices or inventions are and when they impacted society varies based on what part of the world is examined. For example, gun powder was invented in China in the 10th century, however a gun, and its implications in war settings was not developed until the 12th century – it did not make its way to Europe until the 14th century (Gunpowder). Notable technological evolutions throughout time in a Western context include the discovery of fire, the use of stone, bronze, and iron (each which have their own Age named after them), invention of the printing press, and the discovery of electricity.²⁹ That said, the three most defining shifts in Western society are often thought to be: the Agricultural Revolution, which allowed for the domestication of plants and animals and the development of crop rotation agriculture; the Industrial Revolution, which saw the development of factories and the mass production of goods, leading to population growth and higher standards of living in industrialized countries; and most recently, the Digital Revolution, which saw the development of computers and the internet, leading to an increasingly online and globalized economy and the rise of the information age³⁰.

While it is widely taught that each of these revolutions has resulted in progress, and that this progress has always been for the better, the reality is that each change has positive and negative ethical implications. While agriculture, and the food surpluses it produced, led to increased lifespans and urbanization that fostered inventions and advances in the arts and sciences, urbanization also led to increased disease, deforestation, and a defined division of labour in society that is inherently unequal. Additionally, though the industrial revolution was a precursor to modern society as we know it, it also fostered increased inequality and has led to one of the greatest crises of modern times; climate change.³¹ Further, the digital revolution, while increasing communication globally and making many things faster and easier, has also caused severe breeches in privacy, a more sedentary lifestyle, and increased exploitation of employees.³² The ethical questions surrounding the Digital Revolution will be the focus of this committee.

²⁹ Buchanan, R.A. (2022). *History of Technology*. Encyclopedia Britannica. <https://www.britannica.com/technology/history-of-technology/additional-info#history>

³⁰ Buchanan, *History of Technology*

³¹ Buchanan, *History of Technology*

³² Buchanan, *History of Technology*

Artificial Intelligence

The term artificial intelligence (AI) was coined by MIT professor John McCarthy at a 1956 workshop, in which he defined it as: “computer programs that engage in tasks that are currently more satisfactorily performed by human beings because they require high-level mental processes such as: perceptual learning, memory organization and critical reasoning”.³³ However, the capabilities of AI in that age were severely limited based on the amount of memory computers had at that time.

In 1970, with the invention of microprocessors and increased computer memory, AI caught the interest of academics and companies alike and led to the development of smarter AI systems, such as IBM’s Deep Blue machine beating a human grandmaster at a game of chess in 1997.³⁴ That said, the machine learning (ML) algorithm used by Deep Blue involved the machine considering every possible move that could be made at each turn and then determining which would be best, which was a computationally heavy and slow.³⁵ In the early 2000s, major breakthroughs in AI were conducted in the academic field, such as deep learning, algorithms that mimic the human brain, which was invented by U of T professor Geoffrey Hinton.³⁶ This gradually was adopted by other academics and industry alike, and the 2010s were when AI had its first true boom. This saw private companies such as IBM and Google developing machines that could recognize cats in videos and beat champions at Jeopardy.³⁷

In the past decade there has been an avalanche of advancements in artificial intelligence, including:

1. Widespread adoption of machine learning algorithms in everyday life. AI has proved useful for a wide range of applications, from computer vision, natural language processing and robotics, to social media content recommendations and advertising algorithms.³⁸
2. More powerful AI hardware and increased data availability. The rise of big data from internet content along with innovations in hardware such as GPUs and TPUs have facilitated the enactment of more complex models, since there is they can have the computational memory and large training datasets they require.³⁹
3. Increasingly human-like AI has emerged, due to the uptake of deep learning and other advanced techniques that mimic the human brain. Deep learning algorithms have become increasingly popular in the past decade and have been used for intricate tasks such as image classification and generation, object detection, and machine translation and writing.⁴⁰

While these advancements are impressive technological feats, they too come with a myriad of ethical considerations of their own.

³³ *History of Artificial Intelligence*. The European Council. <https://www.coe.int/en/web/artificial-intelligence/history-of-ai>

³⁴ The European Council, *History of Artificial Intelligence*

³⁵ The European Council, *History of Artificial Intelligence*

³⁶ The European Council, *History of Artificial Intelligence*

³⁷ The European Council, *History of Artificial Intelligence*

³⁸ The European Council, *History of Artificial Intelligence*

³⁹ The European Council, *History of Artificial Intelligence*

⁴⁰ The European Council, *History of Artificial Intelligence*

Data Privacy

Data privacy is the ability of an individual or organization to keep their information confidential and secure. The concept of data privacy has been around for centuries, but it has become ever more important in recent years with the advent of the internet and the proliferation of digital information. The United Nations UDHR enshrines privacy as a human right, stating: “No one shall be subjected to arbitrary interference with his privacy, family, home or correspondence, nor to attacks upon his honour and reputation. Everyone has the right to the protection of the law against such interference or attacks”.⁴¹ However, domestic privacy laws vary from country to country. In the 1970s, the United States Congress expanded the Federal Trade Commission Act to include protections for consumer data, and in 1974, the Privacy Act was passed, which established a set of rules for how the US government could collect, use, and disclose personal information.⁴² The Privacy Act was followed by the passage of the Privacy Protection Act in 1980, which placed additional restrictions on the government’s use of personal data.⁴³ However, the most significant data privacy law in the United States is the Gramm-Leach-Bliley Act (GLBA), which was passed in 1999. The GLBA requires financial institutions to disclose their information-sharing practices to customers and gives customers the right to opt out of having their information shared.⁴⁴ In the European Union, the first major data privacy legislation was the Data Protection Directive of 1995. This law established strict rules for the collection and use of personal data by businesses operating in the EU.⁴⁵ The Directive was followed by the passage of the General Data Protection Regulation (GDPR) in 2018. The GDPR is the most comprehensive data privacy law in the world and applies to any business that processes the personal data of EU citizens, regardless of where the business is located.⁴⁶

In the context of the internet, as the number of people online increased, companies collected data on users. This data was ostensibly used for disclosed purposes that benefit the company, such as understanding demographics for targeted advertising. However, many data breach scandals have occurred throughout the years where personal data collected by private companies has either been hacked by or sold to third party companies. Notably, one of the most egregious instances was the Cambridge Analytica scandal in 2017, where it was revealed that Facebook sold the private information of millions of users to this firm, and they used it to: “to build a ‘psychological warfare tool’, which it unleashed on US voters to help elect Donald Trump as president”.⁴⁷

⁴¹ *Universal Declaration of Human Rights*. (1948). United Nations.

<https://www.un.org/en/about-us/universal-declaration-of-human-rights>

⁴² *History of Privacy Timeline*. Safe Computing – University of Michigan. <https://safecomputing.umich.edu/privacy/history-of-privacy-timeline>

⁴³ University of Michigan, *History of Privacy Timeline*

⁴⁴ University of Michigan, *History of Privacy Timeline*

⁴⁵ University of Michigan, *History of Privacy Timeline*

⁴⁶ University of Michigan, *History of Privacy Timeline*

⁴⁷ Naughton, J. (2019). *How Cambridge Analytica Sparked the Great Privacy Awakening*. Wired. <https://www.wired.com/story/cambridge-analytica-facebook-privacy-awakening/>

In the wake of the September 11th attacks, the USA PATRIOT Act was passed in 2001.⁴⁸ This law expanded the powers of the government to collect and use personal information, including data collected by private companies.⁴⁹ This Act brought into the public discourse the ethics of not only keeping personal information from corporations, but also from the government, and brought the discourse over how much privacy should be sacrificed for security to the forefront of national conversations.⁵⁰ This issue was once again brought into the spotlight in 2013, when Edward Snowden leaked highly classified information from the National Security Agency describing the extent of information the American government was collecting on its own citizens, including getting data from Apple, Google, Facebook, and other private companies.⁵¹

As the use of technology increases further, more personal data will be collected than ever before. With the improvement of artificial intelligence that can make accurate predictions off this data, it becomes more valuable, and companies will be increasingly tempted to collect and use it without our consent.

Current Situation

Data Privacy Rights

The issue of data privacy remains unsolved. Currently, individual companies have a lot of leeway over how they use the data they collect and who they share it with. Every app or platform makes users agree to long and convoluted terms of agreement, which contain privacy policies that people tend to not read and cannot disagree with and still use the service. The most controversial uses of data are to give it to police for criminal investigations (Apple), have it be stolen and held hostage (health info), and misused in politics, such as being used to spread false information during elections (Facebook).

AI Technological Capabilities

AI currently affects all of us daily. AI algorithms are used to suggest which Netflix shows we should watch, which YouTube videos we are recommended, the TikToks and Facebook posts you see, and they determine which advertisements we get while online. Algorithms are even used in Google Maps to determine how we get where we want to go. These applications have a real monetary impact for creators making content on social media platforms and can thereby impact what type of content is created, since creators need more engagement to make money. Further, it has been found time and again that social media algorithms favor divisive and extreme content, leading to unpleasant environments across various online platforms. In a specific example, Facebook is being sued for its role in the Myanmar Rohingya genocide, after excessive hate was spread on its platform, inciting violence.

⁴⁸ University of Michigan, *History of Privacy Timeline*

⁴⁹ Ackerman, Spencer. (2016). *Snowden disclosures helped reduce use of Patriot Act provision to acquire email records*. The Guardian. <https://www.theguardian.com/usnews/2016/sep/29/edward-snowden-disclosures-patriot-act-fisa-court>

⁵⁰ Ackerman, *Snowden disclosures*

⁵¹ Ackerman, *Snowden disclosures*

Beyond this, there are complex deep learning models, which have been trained on most of the data on the internet, that can be used to generate text, images, and videos. GPT3, a leading text and code completion model created by OpenAI, can be used to generate text (summarize topics, write essays, compose poems, etc.) that has never existed before. Simply typing in the prompt “write me an essay on the causes of WWII”, a common middle school assignment, will generate multiple paragraphs of formatted and smoothly written text on that subject. This raises the ethical question of whether using this model to write a school essay is cheating, after all, it is not plagiarism since the combination of words in the essay is not directly taken from anywhere, but the student did not write each word themselves. On the other hand, this tool can make it quick and easy to summarize complex topics or documents and can therefore make work much more efficient.

OpenAI has also developed the DALLE-2 model, which creates unique images based on a text description. This model is currently used by civilians to generate fun images, allowing anyone to become an artist in seconds. It is also used by businesses, where hairstylists and plastic surgeons can upload photos of their clients and enter a description to show them a realistic depiction of what their results may look like. However, the ability to create images that were not taken by camera can be abused, such as created fake images of bombings or events to spread fake news or modifying individuals’ images to be sexually compromising. The ability to create new videos, or ‘deepfakes’ has even more potential for abuse, as videos of politicians saying things they never said, or someone doing things they have never done, can be used to spread misinformation.

On the flip side of language and image creation, there have also been major leaps in text and image recognition and classification. These algorithms are used in helpful ways by many companies, such as increasing security via the face recognition function to unlock an iPhone or to flag potentially inappropriate content on Facebook. However, one of the most revolutionary applications of this capability is in making the world more accessible to people with visual impairments, such as being able to show an app what you are holding at the grocery store and have it describe the item, or even to have it recognize text on the nutrition facts or label. That said, this technology can also be used for ethically dubious tasks, such as using one photo of a person to search for the photos of them on the internet by job interviewers, or even police departments attempting to find perpetrators. Further, AI programs are biased both by the way the algorithm is constructed and by the datasets used for training the model; for example, facial recognition has been noted to be less accurate in recognizing non-white faces.

International Frameworks for AI and Data Privacy

There are several international agreements that relate to artificial intelligence (AI). These agreements set forth principles and guidelines for the development and use of AI technology. The Universal Declaration of Human Rights contains a provision related to data protection, stating that everyone has the right to the protection of their personal data.⁵²

⁵² United Nations. (1948). *Universal Declaration of Human Rights*.

The OECD Principles on Artificial Intelligence are a set of principles that member countries of the Organization for Economic Cooperation and Development have agreed to follow with respect to the development and use of AI. These principles include a commitment to protecting the privacy of individuals and ensuring that AI technology is used in a way that is fair and transparent.⁵³

The Council of Europe's Convention on Cybercrime is an agreement that sets forth standards for the investigation and prosecution of cybercrime. This agreement includes a provision that requires member states to take measures to protect the personal data of individuals from unlawful or unauthorized access by third parties, including using AI technology.

Bloc Analysis

Low Data Privacy Regulation: China, Russia, India

These nations do not have robust protections for the usage of citizen's data. China and Russia have both put forward multiple data privacy laws over the past few years, however while they do increase the protection of citizen's data from being accessed by private companies or shared internationally, they do not protect data from the government, which is a high concern given they have both been dubbed "surveillance states" and are involved in violent conflicts (war in Ukraine and the Uyghur genocide) that involve having a firm knowledge of public sentiment and they can use this data to prevent uprisings. This year, India attempted to put forth a data privacy bill that would grant the government similarly unfettered access to citizen's data, however they withdrew this bill due to public and private backlash.

Medium Data Privacy Regulation: Argentina, Australia, Japan, Mexico, USA, Saudi Arabia

These countries have some laws regulating the collection and use of personal data by both private companies and the government. That said, many of these countries, such as Argentina, Australia, and Mexico have laws that are decades old and completely outdated for the internet context. Japan has inconsistent protections, valuing privacy while also not requiring private companies to notify users if there has been a data breach. The USA also has inconsistent laws, where each state has its own sets of protections making it difficult to unify, and national legislation being outdated. Saudi Arabia has passed a law that is in line with the EU's robust regulations, which will be a large step forward in terms of data privacy, however it is not yet implemented.

High Data Privacy Regulation

These nations have passed laws in the past five years that address data privacy in the digital age. The EU, Germany, France, and Italy are all party to the aforementioned Council of Europe's Convention on Cybercrime, which is the most robust agreement governing the use of personal data and protecting individuals from having their data shared without their consent. Turkey and the UK have also enacted their own laws in line with EU standards. Beyond this, South Korea has detailed protocols for data obtainment and storage that emphasize informed

⁵³ *OECD AI Principles Overview*. OECD. <https://oecd.ai/en/ai-principles>

consent, giving them some of the strictest protections globally. Brazil, Canada, and South Africa have both passed recent laws regulating the extent that private companies, such as social media sites and banks, can use and sell personal data.

Research and Preparation Questions

Ethical Questions - AI

1. How can we account for the fact that artificial intelligence has biased decision-making? Should it be prohibited in security efforts that may unfairly target racialized people?
2. How can we prevent the use of AI spreading misinformation? Should there be AI disclaimers in media not directly published by humans to ensure transparency in an online setting?
3. Is there an educational aspect of AI that could make learning more efficient and effective in the 21st century? What are some possible safety concerns when dealing with minors in AI classrooms?

Ethical Questions – Data Privacy

1. How can we balance the importance of data privacy with the interests of national and international security?
2. How can we determine what data can be ethically collected about users and for which uses it can be shared?
3. How much oversight should the government have in monitoring the private sector's data collection? Should this oversight extend to audits to ensure the highest level of safety is being met?