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Introduction to Artificial Intelligence  Assignment 1A

Should We Worry About Superintelligence and the Singularity?

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# Executive Summary

### Key Issues of superintelligence and singularity

The topic question, 'Should We Worry About Superintelligence and the Singularity?', is regarding the impact of further development of artificial intelligence and the effect it would have on our society. Superintelligence and singularity can affect the job market through mass automation taking away human jobs and collapsing universal basic income. It would affect the economy through the concentration of power, where a few powerful entities would gain complete control, causing wide economic inequality and strife, and through market volatility and industry disruption, brewing unpredictability and uncertainty in our economic stability. Furthermore, it affects the environment through resource strain, requiring mass raw materials to keep up with demand, posing harm as it will severely exploit our ecosystem.

### Summarisation of findings

The findings were very concerning, with many sources stating that the growth of superintelligence and singularity has negative effects on our job market, economy, and environment. Artificial intelligence has already been documented to have caused substantial job loss because of artificial intelligence, with many predicting the percentage of layoffs only to increase if no action is taken. Similarly, sources have noted that artificial intelligence is unpredictable and could harm our economy through recession, lack of investment security, and hindrance to our public and private sectors. In addition, our environment is affected by artificial intelligence, as the growth will be more resource-intensive and damaging, displacing many people and disrupting the ecosystem permanently. To ensure humanity isn’t destabilised, we need to curb the growth of superintelligence and singularity before it shatters our society and livelihoods and give more time to research solutions for coexistence.

# Introduction

### The Growth of Artificial Intelligence

Artificial intelligence is by far humanity's most ambitious project, being the current technological feat requiring an incredible amount of engineering and scientific knowledge. Over the past couple of years, we have made astonishing progress improving the optimisation and output immensely. Artificial intelligence's capabilities to learn and adapt to a wide range of problems and situations have made it surprisingly robust and holistic, giving it the practical knowledge to properly interact with our world, whilst having the limitless intelligence of our operating systems, with answers and solutions given at the fraction of a second. And although it sounds like we’ve been given God’s ear, this is far from the reality of it, as artificial intelligence is plagued with several risks and dangers that could be detrimental to our society, making it completely contrary to the Heaven-on-Earth sentiment that often floated around artificial intelligence discussions.

### Outlining the issue of Artificial Intelligence

Artificial intelligence and the growth of superintelligence and the singularity presented humanity with a serious conundrum in question about the ethical, social, and political issues surrounding artificial intelligence's existence and how, if it is all practical, to manage and control artificial intelligence. Dave Waters, who is considered one of the pioneers of artificial intelligence, stated, “Learn about quantum computing, superintelligence, and singularity. The inevitable is coming.” Sharing the same sentiment towards artificial intelligence, expressing his worry and concern for the dangers it presents to us. To ensure that it is beneficial to humanity while reining in its development to ensure humanity's safety and preservation in both a physical and social sense.

### Who’s at risk?

As of right now, artificial intelligence has made great strides; however, we should worry about superintelligence and singularity. It may seem like an outlandish question; however, it should not be taken with a grain of salt, as even Bill Gates, CEO of Microsoft, has stated that “Humans should be worried about the threat posed by artificial intelligence.” Displaying the severity of the issue, artificial intelligence has changed the landscape and threatens everyone across the scope. Artificial intelligence as it stands has two types that revolve around technology. Physical, which refers to doing hands-on work and labour, such as robots and automatic machinery. Intangible refers to the inbuilt programmed intelligence, such as ChatGPT and Deep Seek.

### Who will be affected?

As it stands, both types of artificial intelligence threaten our job market, economy, security, and livelihoods, where many tasks, in both blue-collared and white-collared roles, are at threat of overnight becoming obsolete. Physical jobs that are being threatened include roles such as drivers and factory workers, and intangible jobs being threatened include roles such as programmers and graphic designers. These display the unbelievably large scope artificial intelligence has over our livelihoods and how many people and families would be affected by layoffs and even their lives, ensuring a level of artificial intelligence dominance over certain jobs, roles and governance, which challenges our significance, status and independence, as we’ll lose both our refined skill of trade and become more dependent on artificial intelligence. Moreover, artificial intelligence will eventually be refined and developed where it will have more functionality and capability to overcome more challenges and take away more livelihoods, such as the environment, securing artificial intelligence singularity over humanity.

### Scope, Methodology, and Audience

The scope of this study revolves around artificial intelligence machinery and development and its implementation and consequences of taking over the job market, economy, and environment. The methodology is going over research papers and literature reviews to collect and display found data on the subject matter. The audience for this report is individuals looking to build or incorporate artificial intelligence systems, so they are aware of the current issues revolving around it. However, it is accessible for a general audience as well who are looking to broaden their horizons on artificial intelligence.

# The effects of Artificial Intelligence

Artificial intelligence is one of humanity's greatest leaps in technology, being one of the most impressive leaps humanity has made in such a remarkable time. The expansion of artificial intelligence is nothing less than extraordinary, as we push the limits and capabilities of technology to better serve us. However, this technology raises several ethical questions and problems, with many scientists, commentators, and even Elon Musk, who is considered a pioneer in modern technology development, stating that artificial intelligence is the “biggest existential threat.” Where once unforeseen or merely speculative enquiries needed to be confronted and solved; otherwise, it could prove to be a downside to our growth and hamper our development and prosperity, potentially leading to being severely detrimental if not properly managed.

# Artificial Intelligence on the Job Market

### The fears of Artificial Intelligence

Currently, artificial intelligence, superintelligence, and the singularity are merely in their infancy; however, they’ve already posed an existential threat to our job market. A research paper published by Ernst & Young YYP findings found that 71% of Americans felt their jobs were under threat of being taken over by artificial intelligence, with “41% of Americans believing that it is evolving too quickly.” (Jennifer Hemmerdinger, 2023) Their fears are justified, as the research paper published by Socius found that in 2022 only 14% of jobs were lost due to the growth of artificial intelligence taking over the workspace.

### Artificial Intelligence contribution to job layoffs

With the growth of artificial intelligence, superintelligence, and singularity making it able to compete and surpass jobs and roles dominated by humans, it is estimated that up to 300 million jobs in the future are under threat of being taken over by artificial intelligence (Eric Dahlin, 2022). With 44% of companies in 2024 already using or planning artificial intelligence in their business, according to a study by Exploding Topics (Josh Howarth, 2024), it’s clear that the premature recovery from the Covid-19 job layoffs hitting a historic high in Australia at 13.8%, according to the Australian Bureau of Statistics, is going to relapse back, if not worse, if nothing is done to curb the growth of artificial intelligence.

### The current effects of Artificial Intelligence on the job market

It’s clear that artificial intelligence, superintelligence, and singularity are becoming more intelligent at an alarming rate, with speculation that “nearly 47% of US jobs could be automated by AI over the following two decades”. (University of San Diego, 2024) Suggesting that the drowning out of humans for jobs and roles in our current job market isn’t only already underway; it’s already a pressing issue that will progressively get worse if nothing is done to rein in artificial intelligence.

### Author’s Input

We have reached a point where superintelligence and singularity have escaped the world of fiction and are breathing down our necks. It’s clear to all that something needs to be done to ensure proper restraints and measures are taken on artificial intelligence growth and development; otherwise, our already competitive job market is going to become fiercer and more competitive. It’s evident that artificial intelligence and the developing singularity and superintelligence are going to lead to many more layoffs, leaving many individuals and families left to scavenge to survive in an ever-hostile environment, which creates a more competitive market, which would breed a lot of underground economies to sustain or take advantage of those who are desperate enough to do anything. Which would cause even more strain on society, fabricating the demise of communities, as security, stability, and sustainability will be all but non-existent. For us to continuously grow, develop, and be sustained, it’s up to us to ensure policies and practices to protect the job market and to ensure stability for everyone so that everyone has food on the table and a roof over their heads without any worries or doubts.

# Artificial Intelligence on the Economy

### Artificial Intelligence risk on Investments

Artificial intelligence has already made great strides in making our economy more noticeable, becoming cheaper and more effective. For example, Deep Seek, a Chinese artificial intelligence program, was able to produce a similar output to many major current artificial intelligence software programs, such as ChatGPT, on a smaller and cheaper chip. This has given us a significant edge compared to our abilities to perform and grow. However, it has already led us astray towards an artificial intelligence singularity, surrendering a significant amount of our resources, time, and development into a risk investment, with The Times stating that “Rapid investment in AI technologies may lead to economic bubbles, increasing the risk of financial instability if these investments do not yield expected returns.” (Jack Barnett, 2025) Suggesting that the sudden artificial boom could lead to economic decline and that it’s currently too risky for any harsh investment decisions.

### The sectors of our economy Artificial Intelligence effects

Furthermore, the effects of artificial intelligence on our economy will be felt across the board throughout all departments that build and make up not only the Australian economy but the global economy. An article written by Cornell University suggests that “the rise of AI introduces complexities in areas like income distribution, education, and market regulation, posing challenges for policymakers.” (Anton Korinek, 2024) Suggesting every sector that builds and makes up the economy could be hit badly, which would lead to turmoil as we’ll be in a notoriously bad recession, which would leave many Australians and people in general with nothing to fend for themselves.

### Economic recession caused by Artificial Intelligence

The notion of a worldwide spread of systematic recession isn’t without any merit, as experts believe that “High AI-capital-to-labour ratios could trigger recessionary pressures, reducing disposable income and consumption.” (Jo-An Occhipinti, 2024) Further backing the notion that without any control or management to curb the unrelenting growth and development of artificial intelligence, it could prove to be the biggest hindrance of all.

### Author’s Input

With the economic crisis facing every Australian and those living in the Western world, with the cost of living and housing being completely outrageously high, and with stagnated wages, it’s clear that the further untamed introduction of artificial intelligence superintelligence and singularity into our economy would break the camel’s back and ensue the major economic downhill for all of mankind. Our economy is a balancing act, where a single change can have devastating effects for billions of people across the world. To ensure that our public sectors and jobs that we rely on are protected and maintained not just for now but for generations to come, it’s up to us to properly work out and establish a framework for artificial intelligence superintelligence and singularity to protect our economy and ensure nothing falls into jeopardy.

# Artificial Intelligence on the Environment

### How the growth Artificial Intelligence threatens our Resources

The growth of artificial intelligence is unmatched, seeing so much development in such little time. However, it is a worrying sight to see the growth of superintelligence and singularity, as the need to grow and develop comes at a substantial cost to our environment, threatening humanity and limiting their potential for our growth for the sake of artificial intelligence. The natural resources required to fund and feed such an ever-growing operation are mind-blowing. A study by Yale University found that “The mining and production of these metals used in AI hardware can lead to soil erosion and pollution. Many electronics are not properly recycled, leading to electronic waste that can cause further pollution. The materials used in these devices can contaminate soil and water when not disposed of correctly.” (Yuan Yao, 2024) Illustrates the sheer danger of artificial intelligence on nature and the environment, as the continued growth of artificial intelligence only devours our remaining natural resources available, seemingly contributing to the deteriorating state of our environment at an alarming rate unprecedented by previous eras and generations.

### How Artificial Intelligence is damaging our water supplies across the board

Furthermore, the growth of superintelligence and singularity all harm humanity by damaging our water supply that everyone relies on and depends on to live, as an article written by the UNEP states, “The proliferating data centres that house AI servers produce electronic waste. They are large consumers of water, which is becoming scarce in many places. They rely on critical minerals and rare elements, which are often mined unsustainably.” (UNEP, 2024) Demonstrates that it not only puts our lives and livelihoods in peril, but the damage to the environment and waterways will push and displace many from their current residence or area. Devastating the economy is that sector and putting further strain on the regions available, as it must accommodate an ever-increasing number of people flocking to safety.

### Author’s Input

The growth of superintelligence and singularity cannot be understated in the slightest, as it has already showcased how devastating it can be to our roles and livelihoods as humans, in which our homes and food supply are in serious peril of being permanently displaced without any alternative for us to turn to. With our limited resources dwindling by the day and the environment slowly being polluted and permanently scarred due to our neglect, the unregulated growth of artificial intelligence will prove to be the straw that breaks the camel’s back, as artificial intelligence is both resource-intensive to not only develop and grow but also to sustain what we have. Artificial intelligence threatens our environment, bringing with it irreversible damage that will be felt across the globe as millions, if not billions, suffer because of it. It’s up to us to ensure proper regulation and rules are placed to ensure the longevity and prosperity of the environment we depend so heavily on. There’s no place in the universe quite like planet Earth, especially for us humans. It should be in our best interest to ensure that Earth doesn’t fall into disarray and disorder.

# Solutions

I believe having proper safeguards around artificial intelligence is the best method to prevent superintelligence and singularity. Having regulations focused on rules and procedures to limit the growth and spread of artificial intelligence gives us the time and resources to better improve upon artificial intelligence where we can find an effective and efficient way to ensure its peaceful co-existence with our society, economy, and environment. This notion is also shared by Dave Waters, who states, “If Elon Musk is wrong about artificial intelligence and we regulate it, who cares? If he is right about AI and we don’t regulate it, we will all care.” Illustrating the sheer importance of artificial intelligence and, as a global community, coming to a resolution that is mutually beneficial to everyone, where no one is disadvantaged and dealt a poor hand because of superintelligence and singularity.

# Conclusion

The growth and development of artificial intelligence are undeniably the most astonishing and important breakthrough of this century, moving at an incredible pace, with the potential to bring forth an unforeseen bright golden era for all of humanity. To reach limits unforeseen in the past and dismantle all bounds that have served as the status quo for millennia. However, if proper procedures and protocols aren’t put in place, it could spell doom for humanity, giving complete control over artificial intelligence singularity and superintelligence, surrendering everything we rely on, the job market, the economy, and the environment. Elon Musk stated, “The consequences of AI going wrong are severe, so we have to be proactive rather than reactive.” Illustrating the fears of the sporadic growth of superintelligence and singularity affects all demographics and walks of life, where almost everyone would get the short end of the stick and be severely stricken with deprivation. It should go without being It’s evident that we should fear and worry about the growth of artificial intelligence superintelligence and singularity, as it threatens everything we know and love, the fabric of our world and society, upon which everyone relies and looks upon.

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