

## **'Technological Progress should always be welcomed.' How far do you agree?**

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"I know not with what weapons World War III will be fought, but World War IV will be fought with sticks and stones." This famous quote, sagaciously coined by the great Albert Einstein, fully encapsulates the dangers of technology. It paints the bleak image of World War III being fought with advanced weapons of mass destruction, leaving us with little to none of what was originally on our planet. Technological progress, simply put, is developments in the area of science and its application in the world. With the neck-breaking speeds of technological progress, it begs the question of whether it should be embraced and utilised at all times, or curbed and regulated. I believe that advances in technology should not always be welcomed, because it can lay the ground for new problems to arise and even exacerbate existing issues if it falls into the wrong hands.

At first glance, many technological advancements today provide considerable benefits to the population, so much so that it should be welcomed without question. For example, medical advancements are one area where the potential benefits outweigh the costs. Polio vaccines have been developed due to technology, and are now widely available and affordable for the average person to use. The vaccine has massively aided the war against the disease, bringing its spread today to a minimum. Furthermore, prosthetic carbon fibre legs have been engineered by researchers at Rice University, allowing the disabled like Oscar Pistorius to compete in the 2012 London Olympics. Indeed, technology has the ability to improve the livelihoods of many, if implemented immediately and disseminated widely. In this case, it has saved countless lives in impoverished, less developed countries and raised the standards of living for the disadvantaged. These outcomes would not have been a reality if technological developments were prohibited from reaching the masses, hence progress in technology should be embraced wholeheartedly.

However, on paper, many advancements may appear to only provide benefits rather than detriments, yet in reality, events on the ground can severely curtail their potential gain. When the Polio vaccine was introduced in Pakistan, conspiracy theories on the origins and usefulness of the vaccine heavily affected the effectiveness of the treatment. Islamic militants in Pakistan claimed that the vaccine was a plot to sterilise Pakistani children, even going as far as to bomb a vaccination centre in Pakistan, killing fifteen. While technological progress can be a blessing in theory, reception from the public can instead cause backlash that governments may be unprepared for. Evidently, pressing issues like the lack of good governance to manage and educate citizens have to be in place before countries can even think about utilising technological developments. Therefore, governments have to be wary and prepared before they welcome technology, which further raises the question of whether countries should always embrace technological progress.

Other proponents of technology claim that technological progress is critical for the development of nations, especially when considering how new forms of threats today cannot be simply resolved with existing equipment. With the advent of terrorism in the 21<sup>st</sup> century, many countries are vigilant and keen on enhancing their security by using advanced machinery. In the Singapore Marina Bay Countdown in 2018, Unmanned Aerial Vehicles were deployed to assist officers in surveying the grounds and identifying threats from a bird's-eye view. With the proliferation of technology today, terrorists and ill-intentioned individuals can exploit the rate of technological growth, which can in turn help them carry out their sinister deeds if governments are unprepared to face them. Technological progress has to be embraced so that we are more equipped to deal with the enemy at hand. Therefore, developments in technology have to be welcomed as they are essential in the fight against pertinent threats today.

However, while it is true that countries have to be well equipped to deal with even more pressing threats today, it is worthy to note that technology still has to come under scrutiny to identify potential problems that may arise. The Singapore authorities are cognisant of the potential social costs of implementing drones, Unmanned Aerial Vehicles, to guard our lands and waters. Left unchecked, it can intrude into the privacy of Singaporean citizens and spark national dissent against the government due to its implementation. To test the waters and observe if drones can be put into practice, the government has designated One-north as the test grounds for drone usage. New technology does not always pass inspection by the government, and it is only under certain circumstances when the advantages outweigh the disadvantages that countries authorise its implementation. This was even seen in the Active Mobility Act in Singapore that took effect in May to prevent the unrestrained use of Personal Mobility Devices which has compromised the safety of pedestrians. Therefore, progress has to come hand in hand with multiple rounds of scrutiny before it can be welcomed and used for good.

Conversely, technology can generate more problems than before if it is welcomed without prior checks and balance. For example, the Uber application created a platform for users to book other Uber drivers, which provided transport at a fraction of what taxi drivers charge on average. The implementation of Uber was a godsend for the customers but left taxi drivers falling through the cracks, suffering from plummeting revenue. This culminated in protests in areas like Mexico and Malaysia. Similarly today, the development of driverless cars from Tesla and Google has raised concerns about the impact on bus drivers, taxi drivers and others in the public transport industry. Progress in the realm of technology often manifests itself in greater efficiency in a variety of sectors. It will, and already has, eradicated many sunset industries, propagating the fear of mass unemployment since the advent of the Fourth Industrial Revolution. Technological developments have to be curtailed, or at least altered to a slower pace, as they run contradictory to our right to employment, potentially resulting in social problems like protests and workers riots. Evidently, the progress in technology has to take into account the interests of the citizens, and thus should not be welcomed to protect the rights of humans.

In addition, technological advancements can amplify existing issues today if left in the wrong hands. When Genetically Modified (GM) foods were implemented, they were seen as a viable solution to the plight of farmers due to more drastic climate conditions and more resistant pathogens. However, when GM foods were utilised by farmers, they did not realise that the seeds grew infertile crops and they had to end up continually going back to Multinational Corporations (MNCs) like Monsanto for more seeds. This left farmers struggling to fend for themselves against the grasp of MNCs. The conundrum resulted in multiple lawsuits against foreign MNCs like Monsanto, leaving the farmers empty-handed. Technology today is often in the hands of rich conglomerates who often show no concern for the plight of the poor. If technological usage is unregulated, these corporations can strip away the livelihoods of the marginalised and the impoverished completely, widening the gaping income inequality gap between the affluent and the needy. As such, technological progress cannot be allowed to develop freely. Stakeholders like the government have to step in to level the playing field in society so that existing challenges like inequality will not escalate. Hence, progress in the technological world should not always be embraced.

Due to the aforementioned points, it is evident that the qualms and concerns against technology are real, since it can generate new problems and amplify existing ones if left unchecked. Technology is a tool that can be used to enhance the human race, or completely obliterate it. It is up to the stakeholders of technological progress, the engineers, corporations and governments, to work

together to generate solutions for all of mankind to reap benefits. Only then, can we have progress as a human race and prevent World War III from becoming a reality.

**Comments:**

*Although the first content paragraph was rather run-of-the-mill, the subsequent paragraphs showed insightful evaluation. The second content paragraph, when seen on its own, seemed to be answering the question about whether technological progress should be welcomed, yet later proved to be an effective transition to the subsequent content paragraphs where the insights are distilled.*

*A balanced discussion that reflects thorough evaluation of issues related to technological progress is sustained throughout. A broad range of issues is discussed. There is appropriate use of a wide range of original examples to further illustrate the points made.*

*While the topic sentences for the last two content paragraphs could have been crafted more clearly to represent the argument better, the arguments in these two paragraphs are still clear due to the subsequent elaboration.*

*Effective introduction and conclusion suggests that effective and meticulous planning has been done.*