How Wars Drive Technological Advancement

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Introduction

Wars change the course of history. They take lives and leave countries like a pile of ash. By looking at our history, we see that battles add misery, suffering, death, and fear to people's lives and speed up the technological progress of mankind. We have developed from fighting with swords, bows, and arrows, and now, with the development of nuclear technology, many countries have the potential to vanish a whole city by just pressing a button. The technological benefits of wars are inevitable. Be it the Mughal War, the Civil War, or the World Wars, every war has given rise to amazing technologies that people are using in the current age. The outcomes of war can be argued to be negative by many justifications, but the positive effects, especially the effects on technology, cannot be denied. This essay aims to say how wars speed up technological advancements and whether they help or not in changing the outcomes of war. Wars may have horrific consequences and leave countries devastated; they also serve as the force which pushes the engine of progress.

Discussion

"Necessity is the mother of invention" This proverb explains why wars opened new doors for technological progress.

Wars create an urge for supremacy over other countries. We have countless examples where countries have speeded up their warfare development programs to prove military supremacy over their opponents. In World War II, when America and the Allies were opponents, America and Germany both had their nuclear programs speeded up. America made the atomic bomb and bombed the cities of Hiroshima and Nagasaki. This bombing became the reason for American supremacy in the war and eventually became the reason for America's win. (Feis, Herbert., pp.200) It can be easily analyzed from the inventions made during or before World War like the enigma machine, submarines, machine guns, and tanks, that war or even a threat of war pushes countries in their technological progress, and they are encouraged by the urge of supremacy to speed up their technology programs.

Wars encourage countries to develop ways to overcome the effects of war. When countries have a threat of war, it encourages them to find ways to overcome its effects. This factor has resulted in the invention of countless medical advancements as well as protection procedures in technology. The invention of a periscope, which was used in guns and tanks to spot opponents, and the enigma machine, which was used to decrypt the encoded communication between opponents both of these devices, helped in preparing for possible opponent actions (Lu., n.p). It is obvious that people get injured in wars, and this motivates countries to find technologically advanced methods of medical

care. Penicillin was one of those medical advancements that served a great role in World War II (Ian, pp.177). These inventions, which were made to recover from the effects of war and to find protection from it, are proving to be beneficial even now.

Wars give a boost to the economy, which indirectly results in the advancement of technology. Wars have both short-term and long-term economic benefits. Increased investment in the military creates opportunities for employment, increases the economic contribution of government and private industries, and opens new grounds for technologies. By critically analyzing the economic stats of various American wars, we can safely claim that wars increased GDP rates in the country. In World War II, the GDP rate was boosted by 17%, and most of the part of this increased economy was then used to gather weapons and raw materials for the war (economicsandpeace.org). Employment was improved, and the amount spent on wars and the public government's anticipation increased. This increase in military technology by the government was sustained by the increased amount of taxation. The Vietnam War, though, resulted in inflation. The GDP rate in the war peaked at 7.3%, and the stock market index elevated to 900 points, which again reached this level in 1989. The same improvement was observed in the Korean War of 1951. (economicsandpeace.org). This financial boost from the wars is a factor that contributes to technological development.

Wars create the need for faster communication, hence improving communication technology. In the past, communication was done with the help of messengers who delivered information on fast horses. After observing the benefits of communication in warfare, humans became interested in faster and more reliable communications, and this gave rise to technological advancements in communications (Tore., n.p). First, telephones and radio signals were used as channels for transferring information between troops, and now it is the era of encrypted messaging when information is transferred through extremely protected channels with delta-level 128-bit encryption. Another best invention of war in communication technology is the radars, which detect incoming air vehicles, and the troops are warned before an aerial attack. The reason behind these technologies in communication was the wars, which created the need for safer communication channels.

Conclusion

In short, wars are a potential factor that motivates technological advancements. The urge to achieve supremacy over opponents is the major cause of the need for advanced technology. Overcoming the effects of war and seeking relief from its after-effects became the reason for most of today's medical advancements. The economic boost that is initiated from wars is a contributing factor which increases opportunities for investment in science. The relationship between warfare and technology is subtle and ever-evolving, and with the passage of time, this need is increasing.

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