**GP Model Essay - Science and Technology**

**To what extent does science and technology make us less human?**

Science and Technology is an integral part of our human civilization, from the use of simple tools to farm and war to the use of engineering and technological marvels such as jumbo jets and genetically modified organisms. The changes are aplenty, such as advances in healthcare and the paradigm shifts in cultural norms and traditions which gives rise to a controversial debate whether we have changed as a human race. These changes give rise to the age-old philosophical question that famous philosophers such as Plato and Helaclitus have questioned - Has science and technology made us less human. To understand the validity of this statement, we will examine in this essay how science and technology has affected human lives, in terms of human psychology, morality and social interactions.

Those who opine that science and technology make us less human, they posit that science and technology will create psychological impacts that shape us to be rational and mechanical (more robot-like), making us less human. Technological advancement has enabled humans to disregard the need for intuitive thinking and instead placed greater emphasis on task-oriented behaviour. For example, the standardization of procedures and work repetition in heavy industries have caused humans to be accustomed to the monotony of work as there is no need for independent thinking and questioning of practices. For those who are in the academic fields of science and technology, the emphasis on dialectical thinking has shaped the way humans behave. For example, academics will pose ‘yes’ or ‘no’ surveys, which encourages respondents to think like robots. Furthermore, there is a higher degree of mechanization and conformation through the machines and computer software we used which will reduce our sensibility as a human being.

However, it can be argued that we still retain our sense of humanity as it is part of our human nature to express emotions and feelings, developing our sense of empathy and compassion as human beings. Since the inception of human civilization, humans are used to interacting with one another, such as the expression of emotions. It is an innate part of us to empathise with one another as it supports the instinctive nature to ensure the survival of our mankind. The advent of telecommunication technologies have brought about greater interaction by removing physical barriers that once limited us. People of different cultures, faiths, ethnic groups are able to empathise with each other and stand in solidarity with each other during times of misfortune. This is illustrated during the 2020 Beirut explosion where the world came together to raise 565 million to aid the people of Lebanon to rebuild. Therefore, science and technology has improved our understanding of the world, which accentuated our sense of empathy, rebutting the argument that we are less emotional.

Science and technology may have also made us less human as we become less moral and ethical in judgement after being affected by the new logical ethics structured by science and technology. Our blind pursuit of knowledge has caused us to ignore the moral implications and repercussions. For instance, the scientific discovery of cloning has sparked off controversies as some researchers value the attainment of personal prestige over the ethical concerns. Similarly, the availability of euthanasia has opened up a Pandora’s Box as it pushes the boundaries of the foundational ethics and morals of knowingly taking another life. Abortion is also another hot-button issue best highlighted in the divisiveness and controversy over the issue in the United States. Detrators are concerned that the increasing accessibility and reduction in regulation of abortion which would lead to moral degradation and the loss of our identities in the process. Hence, Science and technology could be said to make us less human as it could lead to the degradation in moral and ethics of a society.

However, it can be argued that we still possess the capacity to make judgements that display our strong beliefs in the moral and ethics to build our civic society which defines our human civilization. While it can be acknowledged that science and technology has opened many untold possibilities on how it affects human lives, we also become more cautious in the way we use our knowledge for the greater good. This can be seen through the efforts of scientific research, where our understanding of the destructive nature of environmental degradation gave rise to the green social movements that convinced people to adjust their social behaviour and minimize the carbon footprints. In addition, Scientists and research institutes are heavily regulated by the state to ensure that their inventions do not cross moral and ethical boundaries. Organisations such as the World Commission on the Ethics of Scientific Knowledge and Technology (COMEST) and the Bioethics Advisory Community in Singapore are great examples. This is testament to our ability to still make ethical and moral judgements, an assertion that we are maintaining our human identity.

In addition, Science and technology has made us less human as it causes the decline in communication and interaction skills, compromising our innate human desire for social bonding. For instance, the use of social media tools has shaped the way we communicate with one another. Although we are no longer bound by the constraints of time and space, humans are increasingly accustomed to online rather than face-to-face social interactions. This is best seen in the rise of the phenomenon of hikikomoris in Japan and other parts of the world. Explained by the advent of social media and online services, where we are able to satisfy our basic and social needs through social media and online delivery services respectively. People now attain every aspect of the Maslow hierarchy of needs without leaving the comfort of our houses. Consequently, we gradually lose the ability to express ourselves and empathise with one another which is a cornerstone of our identity as humans.

However, it can be argued that we are still social beings but have simply modified our means of communication and ways of interaction. Similar to other herd creatures, humans will subconsciously desire social contact. Science and technology has instead strengthened this aspect as it feeds on our desire to be part of each other’s lives. For example, the ‘fear of missing out’ notion was discovered through studies. The popularity of new social media sites such as Instagram and Tik Tok shows that people still crave social interaction and acceptance. This is especially evident during the outbreak of the coronavirus global pandemic where the implementation of the lockdown has led to the collective fall in mental well-being as people’s interaction were minimised. Science and technology has instead fostered stronger social ties through the advent of social media.

In retrospect, we can see that science and technology has influenced human characteristics and this is part of human evolution. The extent of impact on how science and technology changes human features will depend on the pace of technological advancement and how human beings adapt to these changes. In the process of integration, it is inevitable that science and technology will be part of human civilization. Therefore, it is imperative for us to be cautious of the impact on how science and technology will deface our human features.