Advantages & Disadvantages of Technology

Technology can be defined as a set of skills, techniques, processes and methods that help humanity to accomplish certain goals in the production of goods or services.

The rate of technological development has significantly increased over the past decades and continues to do so.

Due to this rapid technological progress, it is hard to imagine what the world will look like in twenty years.

Even though technology has significantly improved our quality of life and has several upsides, it also implies serious problems.

In this article, the pros and cons of technology are examined.

Advantages of Technology

1. Increase in production
2. Efficiency improvements
3. Better working conditions
4. Higher wages
5. Higher corporate profits
6. Higher tax income for governments
7. Improvements in safety
8. Higher life expectancy
9. Mitigation of global hunger and starvation
10. Easy communication
11. Easy information sharing
12. Online banking
13. Connects remote areas to the public infrastructure
14. Cheap energy production
15. More convenient everyday life
16. Travelling has become quite easy
17. Improvements in entertainment
18. Improvements in healthcare
19. Education possibilities improved significantly
20. Technology is necessary to solve our global problems
21. Necessary for the energy transition process
22. AI may make the “impossible” possible

Increase in production

Technological progress over the past decades allowed us an enormous increase in industrial production.

Due to the use of machines, companies are able to produce large quantities of goods with a low unit price.

This benefits the general public in a way that the average consumption levels increased significantly.

With an average job, people are able to earn much more money and to consume much more compared to a few decades ago.

Efficiency improvements

Technological progress also implies increases in the overall efficiency of processes.

For instance, a few decades ago, many technologies had been rather new and not mature yet, which also implies significant levels of inefficiency.

Over time, due to extensive research, processes have been significantly optimized.

Better working conditions

Over the past decades, also the average working conditions increased dramatically.

For instance, while a century ago, farmers had to do all the hard work with their bare hands and only had quite basic tools, they can now use sophisticated machines which can vastly reduce the manual physical work.

Thus, instead of working quite hard all day long, those farmers are now able to use machines that support them with most of the physical work.

The same is true for many other industries.

Moreover, also the focus of work shifted. In former times, most of the work had been done in construction, farming and other jobs that had been physically demanding.

However, in the past decades, we had a shift to a more service-oriented work environment.

This implies that many jobs are now carried out in offices and don’t imply hard physical work anymore.

Thus, most people would agree that the overall working conditions improved significantly over the past century.

Higher wages

Our rapid technological progress also made it possible that the average person is able to consume much more material things compared to a few decades ago.

This is due to higher wages and also due to the cheap production of material goods for mass production.

Thus, while people one century ago had to work quite hard just to survive, the average person in the rich Western World will be able to live quite comfortable with a normal 9 to 5 job.

However, it should be noted that this is only true for rich countries and that there are still many people on our planet who struggle to earn enough money to be able to buy basic things for their daily life.

Especially in those countries, it is crucial that we enhance the technological progress in order to fight poverty, hunger and starvation on a global scale.

Higher corporate profits

Over the past decades, overall corporate profits increased significantly.

Due to technological progress, processes in supply chains can be optimized and costs could be lowered, which leads to higher profits in the long run.

If you have a look at the stock prices of major companies, you can see that the stock price of most of them increased substantially over the past decades, which is also due to higher income prospects.

Higher tax income for governments

Due to technological progress and the positive development of revenue and profits of firms, also the overall tax revenue for governments increased drastically.

With higher tax income, governments are able to spend more money on infrastructure projects and research and development, which will likely lead to improvements in the overall quality of life for the local population.

Improvements in safety

Since poverty and crime are highly correlated, an increase in average incomes due to technological progress also implies lower crime rates and improvements in the overall safety level of the local population.

People have to be less worried to get robbed in rich countries compared to poor developing countries where people sometimes have no other option to make money than to engage in stealing and robbery.

Higher life expectancy

It has been shown by many different studies that the level of technological progress and the income significantly [influences the life expectancy](https://environmental-conscience.com/low-life-expectancy-causes-effects-solutions/) of the local population.

For instance, according to the United Nations Development Program, as of 2020, people living in Hong Kong have a life expectancy of almost 85 years, while people in the Central African Republic have a life expectancy of 53 years.

Thus, if you are borne in rich industrialized countries, chances are that you will live much longer than in poor developing countries.

This is mainly due to large differences in technological progress which result in large income differences and also significant differences in the ability to afford proper medical treatment.

Mitigation of global hunger and starvation

Technology is also able to [fight global hunger](https://environmental-conscience.com/global-hunger-extent-causes-effects-solutions/) and starvation.

Due to technological progress, agricultural processes can be optimized.

Thus, it is possible to harvest higher crop yields, which in turn could reduce the hunger issue for the local population.

Moreover, through the use of the internet, even people in poor developing countries are now able to access education channels of several sorts.

For instance, for various different topics, Google and YouTube often provide users with high-quality education for free.

Thus, technology is crucial in order to fight the causes of hunger and starvation in order to improve the overall living conditions of people on a global scale.

Easy communication

Through the invention of the internet, it is now possible to connect to people all over the world with a device that is small enough to fit into your pocket.

Do you understand how crazy this really is? The invention of the internet can be regarded as one of the greatest things humanity ever accomplished.

We can basically communicate in real time with people all over the world through messenger services for free.

This is also important when it comes to the workplace. It is now no longer necessary to be physically present for conference meetings since people can also join those meetings through virtual presence from home.

Thus, the compatibility of family and work will be much easier through those virtual means of communication since you can participate in meetings while looking after your children at the same time.

Easy information sharing

Through technological progress and information sharing through the internet, it is also possible to get the latest news on your computer or your smartphone.

Accessing information in real time has never been that easy in the history of mankind, which makes it possible for people to inform themselves about what’s going on in the world.

Online banking

Through technological progress, it is now possible to execute almost all payment transactions with the help of your online banking account.

It is no longer necessary to attend a local bank for wire transfer, you can do it conveniently while sitting on your couch at home.

Moreover, you can buy stocks and other financial instruments through online banking platforms and brokers, which gives you a huge advantage, both in terms of lower fees and also in terms of speed compared to buying stocks in bank branches.

Connects remote areas to the public infrastructure

Especially for remote areas that do not have that many possibilities for communication, the internet can be regarded as huge blessing.

Even if it might be rather slow in remote parts of the world, it still can connect local people to the outside world and they might be able to get more education opportunities compared to a world in which the internet didn’t exist.

Cheap energy production

While in former times, our ancestors relied on campfires for cooking and heating purposes, we are now able to use electricity for all purposes of our daily life.

Not only is it much more convenient to use electricity instead of campfires, it is also much safer.

Over time, energy has become quite cheap compared to the average income of people in Western countries, which makes it possible for the average person in the Western world to consume large amounts of energy.

More convenient everyday life

Technological progress also helps us in all tasks of our daily life and makes it much more convenient to organize ourselves.

Thus, by using technology in a responsible manner, it could greatly improve our overall quality of life.

Travelling has become quite easy

Travelling has become much easier and much cheaper with the invention of the internet on a global scale since prices are much more transparent now compared to years ago.

Now, you can compare prices from many different travel companies and book the cheapest flight.

Two decades ago, you had to rely on travel agencies, which could basically sell you anything and you had much less room to compare prices.

Moreover, it is now possible to book your flight online, which gives you the opportunity to spontaneously book a flight and travel to any place on earth as soon as tomorrow if you want to.

Additionally, through all this information that is around on the internet regarding places you have to visit and customer reviews, it is much easier to make choices regarding what you want to see and what to skip on your travels.

Improvements in entertainment

The internet also gives us quite many additional entertainment opportunities.

For instance, you can now watch any movie you want for just little money from your couch at home.

Moreover, you can play several games online and interact with people all over the world in real time.

Thus, compared to a few decades ago, also the variety of entertainment options increased substantially.

Improvements in healthcare

Also our overall global improvements in healthcare are remarkable.

We are now able to treat diseases that caused millions of fatalities in the future, which allows us to increase the overall life expectancy and also to improve the quality of life for people suffering from serious chronic diseases.

Moreover, our medical knowledge increases quite rapidly, which may give us the chance to even cure diseases like HIV in the future.

Education possibilities improved significantly

Another advantage of technology is that it offers us the possibility to increase our education levels, even if we sit on our couch.

For instance, you can educate yourself by watching courses of several sorts.

Moreover, you can engage in discussions in forums and improve your knowledge on all kinds of different topics.

Technology is necessary to solve our global problems

Every problem that humanity solved in the past has been due to technological advancements.

Technology will always be a main tool when it comes to solving problems on a global scale.

For instance, this could mean that improvements in technology could help farmers to harvest higher crop yields.

It could also mean to ensure the water supply in hot and dry climates in the context of global warming.

All those major issues can only be addressed if we continue to improve technology on a global scale.

Necessary for the energy transition process

Improvements in technology are also crucial in order to accomplish the transition process from fossil to renewable energy sources.

While some renewable green energies are rather new and not mature yet, they will responsible for our energy supply in the near future if we want to fight global warming in a viable manner.

AI may make the “impossible” possible

Through the invention of [artificial intelligence](https://environmental-conscience.com/advantages-dangers-of-artificial-intelligence/), humanity may have options that would have been inconceivable only a few decades ago.

This could imply that we may be able to colonize other planets or that we increase our life expectancy to an unbelievable age.

For sure, AI will help to optimize complex processes in all parts of our daily life.

Disadvantages of Technology

1. Can harm humanity
2. Pollution of several sorts
3. Destruction of habitats
4. Endangerment and extinction of species
5. Deforestation
6. Ozone layer depletion
7. Acid rain
8. Information overload
9. Mental health problems
10. Obesity
11. Social isolation
12. Addictions
13. Laziness
14. Social tensions
15. Unemployment for low-skilled workers
16. Surveillance of the general public
17. Technological dependence
18. Data misuse
19. Genetically modified viruses
20. Ethical concerns
21. Dangers from intelligent machines

Can harm humanity

Even though technology has important advantages, it also implies serious problems.

For instance, advancements in technology can also be used to invent and produce horrible arms.

One prominent example of this are atomic bombs, which can cause the death of millions of people and could potentially destroy our whole planet if they were used in nuclear wars on a global scale.

Pollution of several sorts

Technological progress and the implied increase in production and consumption levels also [imply an increase in overall pollution levels](https://environmental-conscience.com/types-causes-effects-solutions-for-pollution/).

For instance, since more people own a car, overall emissions have increased over the past decades.

Moreover, the water quality in many water bodies worldwide decreased significantly due to the fact that many companies just illegally dispose of their industrial waste in nearby rivers or lakes.

However, technological progress could also lead to lower emission levels.

For instance, through the use of electric cars, the overall emission levels could be lowered.

Thus, depending on the type and the use of technological progress, it could either increase or decrease the level of pollution.

Destruction of habitats

In the past decades, many natural habitats have been destroyed and the living conditions of many animals and plants have been altered in an adverse manner.

Thus, through technological advancements, for instance, in the context of mining, large areas of land have been made unsuitable for animals and plants to survive.

Endangerment and extinction of species

Through human intervention, many [animal and plant species](https://environmental-conscience.com/flora-and-fauna/) have become endangered or even extinct in the past decades.

Thus, if our technology is not used in an environmental context but rather for economic optimization purposes, chances are that we continue to lose many species in the near future.

Deforestation

Technological progress and the economic possibilities that come along with it can also [contribute to the deforestation issue](https://environmental-conscience.com/causes-effects-solutions-for-deforestation/).

For instance, farmers in the Amazon Rainforest intentionally burn and cut down large areas of forest in order to get more room for farming since it is more profitable for them.

However, deforestation contributes to global warming and to the horrible adverse effects related to it.

Thus, if technology is not used wisely, it can also cause serious environmental issues.

Ozone layer depletion

Through the use of excessive amounts of chemical fertilizers and pesticides which have been invented by using the know-how from technology, [our ozone layer may become depleted](https://environmental-conscience.com/causes-effects-solutions-for-ozone-depletion/), which could increase the probability of serious health issues like cancer and other severe diseases.

Acid rain

Our excessive levels of greenhouse gas emission from the use of cars but also from industrial processes [contribute to the formation of acid rain](https://environmental-conscience.com/acid-rain-causes-effects-solutions/).

In turn, acid rain can lead to lower crop yields and other serious environmental issues.

Thus, acid rain can be another consequence of technological progress.

Information overload

Although it can be regarded to be a good thing that the world is highly connected through the use of the internet with smartphones and computers, information overload may be a significant danger from this rapid technological progress.

In our nowadays society, many people feel the pressure to be available all day long.

However, this may lead to a state where people are simply not able to deal with all those tasks anymore since their mental capacities may be exceeded.

Mental health problems

Through information overload related to our technological progress, mental diseases like [burnout](https://environmental-conscience.com/burnout-causes-symptoms-effects-solutions/) and other mental issues may increase in numbers.

It has been shown by many studies that mental issues increased over the past decades.

This may be attributed to excessive stress from rapid technological progress, at least to a certain extent.

Obesity

Since our working conditions improved and people are much more convenient compared to a few decades ago, [obesity](https://environmental-conscience.com/obesity-extent-causes-effects-solutions/) has become a big health issue for millions of people, especially in our rich Western world.

It is estimated that currently, even more people die from the effects of obesity than from hunger and starvation.

Thus, convenience related to our technological progress can literally kill people on a huge scale.

Social isolation

Since we can communicate over the internet, some people may lose connection to the real world and may [become socially isolated](https://environmental-conscience.com/social-isolation-causes-effects-solutions/).

They may just live in the digital world and may no longer meet family and friends in the real world.

This may lead to several issues, including mental health problems since humans are social creatures that need a certain level of human interaction to stay mentally healthy.

Addictions

Some people may literally become addicted to their smartphones.

This can be observed when you simply look at how people behave in public spaces.

Most of them are looking at their smartphone all the time.

Even if a group of people hangs out together, they often just look at their phones instead of talking to each other.

Laziness

Since our rapid technological progress allows us to get assistance with almost all things of our daily life, people may become quite lazy.

In turn, this could lead to serious levels of obesity, which can already be observed in many rich Western countries since people simply eat unhealthily but also lack exercise and physical work at the same time.

Social tensions

Technological progress may also lead to serious social tensions.

While many people will greatly benefit from it, people who do not want to improve their knowledge and to use new technologies may be left behind, which may lead to serious levels of frustration and social tensions since these people may no longer be able to participate in our society anymore.

Unemployment for low-skilled workers

Technological progress may also [imply higher unemployment rates](https://environmental-conscience.com/unemployment-types-causes-effects-solutions/) in industries where many processes could be outsourced to machines.

Thus, a fraction of our global population may become unemployed due to technological progress since many jobs may simply be carried out by machines instead of workers in the near future.

Surveillance of the general public

Another problem with our technological progress is that it allows our authorities a high level of surveillance of the general public.

People can be tracked by using cameras and also through the GPS of their phones.

Thus, our individual level of freedom and independence may become lower as technology progresses further.

Technological dependence

Many people will also become quite dependent on technological assistance.

If some devices were no longer working for a longer period of time, people may feel lost and may no longer be able to carry out tasks of their daily life since many people become quite dependent on their technical gadgets.

Data misuse

Since our data is stored in clouds of large companies, they may be stolen and misused by hackers.

Personal data is a quite expensive commodity and hackers can make millions of dollars by selling this data.

Thus, compared to a world that worked quite manually only a few decades ago, the risk for data theft and misuse increased significantly.

Genetically modified viruses

Although our medical research progress is crucial to produce new drugs that can cure serious diseases, accidents in those research institutions may also lead to the development of genetically modified viruses that could be potentially deadly for millions of people on our planet.

Ethical concerns

Our technology provides us with many possibilities, however, some of them are quite questionable in ethical terms.

For instance, there are serious discussions on the topic of cloning and if it is morally appropriate or not.

Dangers from intelligent machines

Artificial intelligence has the potential for unbelievable technological progress, however, there is also a significant danger related to it.

If machines become too intelligent, they may be able to take control over our planet and may exterminate the human race.

For instance, Elon Musk once said that AI is one of the greatest dangers to humanity.

Conclusion

Technology has many important advantages.

It can definitely help us to fight poverty and global hunger and may also be crucial to fighting global warming.

However, technological progress also implies serious problems.

Thus, we as humanity should take great care regarding how far we want to go since we might destroy ourselves at one point in time if we take it too far.