

Harmonious Development of Society and Science and Technology

HuDie Liao*

Basis international school park lane harbor, Huizhou, 516200, China

**Corresponding author. Email: 1254547025@qq.com*

ABSTRACT

Nowadays, with technology and society continuing to develop, human life has huge changed. Working by hand is not only an option that people use in the factories, technology convenience the whole society, and society also contributed to the development of technology. More and more people focus on contributing to development the of society and technology to solve the social questions that humans face now. In society and technology these two perspectives, the harmonious development of these two can form a lot of benefits, it not only can give humans more opportunity and change their future, but it also can continue to stimulate the technology development, especially the social situation under COVID-19. Therefore, the relationship between society and technology is close to each other, and the harmonious development of this two creates a solid fundamental to the society's future. They promote and influence each other, and together build a well-developed world.

Keywords: *society, science and technology, innovation, COVID-19*

1. INTRODUCTION

From the current social phenomenon, science and technology play an important role in human life. It not only reflects the progress of human intelligence but also promotes the progress of the whole society, including agriculture, population, and environment. With the continuous development of society, more and more people are willing to spend time inventing products that can support human life and create better living conditions for human beings.

In addition, many scientists are thinking about how to build a harmonious society between society and technology, just like the relationship between animals and the environment, they cannot be separated from each other. At the same time, human beings have been used in human society for a long time, supporting a lot of valuable information and important data through different types of technology.

Therefore, building a harmonious system has become the key element of this huge project about humans and technology. The human society promotes the development of science and technology through financial support, at the same time, science and technology also affect the development of human society.

In another word, "technology is a vitally important aspect of the human condition,"[1] weather a person is poor or rich, their most of the clothes and food are produced by machines because there is only less percentage of people still produce product by hand. This means that the development of human society and science and technology are complementary, most countries in the world are constantly developing by the development of science and technology, people now use science and technology to improve their ability and innovation, this can make science and technology benefit mankind, let mankind continue to develop forward.

Under this social background, people have different perspectives with the relationship between society and technology can harmoniously develop or not. Some of the population think they cannot develop harmonious because some of the innovation brings a lot of negative effect to the society; while some of the population think technology and society and develop together because they can mutual promotion.

Throughout history, the Industrial Revolution around the world and Market Revolution in the United States all formed the foundations for progress in society. During that time, technology developed very rapidly including science, transportation, information, and the internet. In modern society, the internet accounted for

21 percent of the GDP growth over the past 5 years, and the national economies have major benefits from the technological revolution [2].

To be more specific, China, a country very focused on the construction of a harmonious society under the new society background, the main point is sustainable development strategies, which can help the society and technology harmonious develop together. However, the COVID-19 has a huge impact on society and technology development globally, it not only changes the working style that people usually use, but it also changes the economic and social system. During the COVID-19, people use online meeting apps more frequently, such as Zoom and Teams, which the society force the community's technology to quickly develop.

However, many people in the society think that technologies and society cannot have harmonious development together because some technologies hurt the society, including people become lazy and do not participate in their work, while more people believe technologies and society are jointly promoting and can contribute a better society together because they all let each other have huge progress and development. Through this research paper, we design to find the benefits for society and the technology field separately, to have a deeper understanding of this social phenomenon.

2. HOW TECHNOLOGY BENEFIT THE SOCIETY

In a harmonious development society, the first advantage for people and society is they can gain a lot of benefit from it. With the technology continuing to develop, most companies and individuals begin to have online shops to let their consumers do not need to spend time going to the store.

2.1 How many people use internet?

Under this background, the international trade and foreign direct investment more frequency, this cause most of the people can gain what they need more quickly. As of January 2021 there were 4.66 billion active internet users around the world - 59.5 percent of the global population [3], which these huge populations have different kind of good demand for different aspects of the global economic system to develop.

2.2 The development of the innovation

In the past few decades, the technology develops from Gutenberg Printing Press in 1440, Telescope in 1608, Light Bulb in 1879, X-ray in 1895 to Google in 1998, Facebook in 2004, Alibaba in 2003, twitter in 2006, and Bitcoin ATM in 2013 [4]. These different type of companies develops cause people have more

satisfied with life because some of these technologies support people's daily life, some of these technologies gave people a more convenient way to buy the products that they need and some of these technologies gave people some places that can ask a question, getting help and having communication. These innovations not only improve the global quality of life and also increase output and boost economic growth around the world.

2.3 Job opportunities

Besides, people also can get benefit from different types of innovation about they can provide a lot of jobs that can decrease the unemployment rate around the world. For example, Alphabet (Google's parent company) had 156,500 full-time employees [5], Facebook has 58,604 full-time employees as of December 2020 [6], and 251,462 people work in Alibaba. These big companies hire a lot of technicians to maintain a company's normal operation, and lots of people to serve the society, which lets the global GDP increase very fast. In 2020, "Alphabet generated almost \$183 billion in revenue. and over 80% came from Google's ads business, according to the company's 2020 annual report," [7] and Alibaba, Huawei, and Baidu this Chinese company contributing the world's second-largest economy and produces 9.3 percent of global GDP [8]. Therefore, technologies and innovation contribute to each company, each company contributes to the world economic system and a well economic system let most of the people's lives better than before.

In the past 100 years, the technologies involved in the agriculture field, which help the farmer save more time and solve a lot of problems. Comparing the United States at the 1920 and 1990s, although the harvested cropland has declined and the labor force has decreased from 26 to 2.6 percent, the grain production per person has increased by about 12 percent [9] (when the global population growing). In China, the technologies used in the agricultural is later than the United States, but after 1949, China have a huge agricultural production developed, it not only provided enough food to the huge population, it also played important role in the national economic system [10].

2.4 Under COVID-19

Looking back to the current society, COVID-19 sweeping the world with a huge impact. The first impact was some companies gain a lot of revenue during this time, like Bluemoon and MrMuscle a type of cleaning product company. In China, the market scale of China's disinfection and sterilization equipment industry was about 17.665 billion yuan in 2018. About 18.622 billion yuan in 2019, 19.658 billion yuan in 2020, and 21.879 billion yuan in 2022. The market scale of

the sanitary products industry is also increasing. In 2018, the market scale of absorbent sanitary products reached about 118.87 billion yuan, an increase of 4.4% over 2017 [11]. Therefore, the COVID-19 also gives society some positive impact on the global economic system. COVID-19 not just impact the sterilization equipment industry, also have a huge economic impact on the companies who produce medical protective appliance. China produced more than 5 billion masks, with a daily output of more than 20 million, since March 2020, the daily output of masks in China exceeded 100 million [12]. Therefore, the society economic develop around the world is the one of the most important reason why technologies can have fast develop.

3. HOW THE SOCIETY BENEFIT TECHNOLOGY

Next, not only the technologies let society gain huge benefits, but society also has huge improvements to the technologies. The global economy grew 5.7% in 2021, and 3.4% in 2020, which means each country's society and government can give more financial support to the technologies development. For example, United States spending on technology products, services, and the staff was estimated to reach around 1.94 trillion US dollars in 2021; Germany is to invest 2 billion Euro in quantum computing and technologies, and Japan was estimated at almost 13 trillion Japanese yen involved in technology in 2020 [13]. These data mean humans need to use a lot of money to support technological development, this has very close related to society's economic system.

3.1 How population influence technology develops

Population always is a hot topic for society development, there are difference countries government want their country's birth rate increase because "greater population spurs technological change." The population not only have close related with the economic development; the level of population also determines the pace of technological change [14]. Under the situation with population growth, there are more scope for innovation, invention and creative genius and economies of scale from higher population in a country [15], which bring huge benefit to the society economic and technologies development.

3.2 How can advertisement benefit technology develop

Similarly, society always uses advertisements to spread information about technology, to attract more technical talents. Not just time, some of the advertisements also influence a lot of parents because there are more parents send their children to contact with

the technologies, and have strong interest with it, which continuously accumulate potential talents for the country. In China and United States, there is a lot of advertisement about Python and young child coding, therefore, 46% of females and 62% of male high school students say that they are interested in learning programming. [16] Under this situation, the consequence of this situation has a close relationship with society's development, because the society can spread the information very quickly through different ways, which can form a mutually beneficial situation.

3.3 Motivation for better life

At the same time, society influence what aspects or fields of technologies are developed. Most of the population have some idea that technology is used to serve society because humans want to improve their quality of life (convenience and safety). Due to that, many technologists try their best to continue innovation and development.

3.4 Human cannot leave electron devices now

Some of the population want to play games or have meetings on a bigger screen, iPad be produced in 2010, the iPad is ideal for lightweight tasks such as email, browsing, editing documents, and delivering keynote speeches at meetings. At the same time, there are many productivity applications, games, and other applications on the app store designed for the iPad. Some of the population want to exploit other planets in the solar system, so Curiosity lands on Mars in 2012, which can satisfy human curiosity and constant interest in exploring the unknown. Some of the population amputation due to injury, ReWalk exoskeleton be innovating to help people with spinal cord injuries walk again and have a better life [17]. As a result, Social demand is like the flagpole of scientific and technological development, it leads to the development and progress of different scientific and technological industries.

3.5 Under COVID-19

Under COVID-19, racial social change forces the technologies to continue to break through. In this special period, people constantly use the Internet to spread information and quickly create a special website to record the number and location of patients in real-time. This requires not only satellite positioning, but also the efforts of various scientific and technological personnel. Also, many high technologies in medical treatment have emerged, such as ventilators and temperature detector. At the same time, some areas with serious epidemics have taken the measure of telemedicine. Most hospitals have rebuilt their exclusive websites so that people in need of medical treatment can get some help. Not only

telemedicine, but distance education is also the most common situation in the epidemic. Online class platforms such as Zoom and Teams have also been constantly updated in order not to delay students' class progress.

4. CONCLUSION

To conclude, both technology and society can benefit a lot from each other. Although the development of science and technology will bring a small part of the bad effects, harmonious development brings unmatched benefits. In every social background, there will be different degrees of scientific and technological development, because the development of science and technology also depends on the development of society. If the social development is not well, then the science and technology sector will be badly affected, but if the social development is good, then the science and technology sector will be well affected.

The two are mutually reinforcing and make progress together. Society is like a guiding lamp for the development of science and technology, which illuminates the road to future development. Good social development lays a solid foundation for the development of science and technology. Many people think that vaccine research is just a human effort, but it would not have been possible without the support of science and technology. Therefore, technology and society are closely related, and the harmonious development between them has created an incomparable world now.

The research on the relationship between technology and society's harmonious development can give a hint to humans that they cannot leave others alone, COVID-19 was one of the most meaningful examples, when the technological people create something new products, they need to consider the influence in the society, and the society cannot leave with the technology now due to people already accustomed with using high-level technology that can service their life. In the future, we can be sure that society and technology will continue development in different fields, it not only means that the people can have a better and more convenient life than now, but it also means that the development also shows the value of human and the value of the evolution. Science never stops, and the development of the society and the world never stops, in order to build a strong and wealthy society, development of the technology was one of the primary motivations or needs that society has.

REFERENCES

[1] Mackenzie, Donald. "The Social Shaping of Technology." Eprints.lse.ac.uk, Aug. 2012, <https://eprints.lse.ac.uk/28638/1/Introductory%20essay%20%28LSERO%29.pdf>

- [2] Manyika, James. "The Impact of the Internet on Economic Growth and Prosperity." McKinsey, Oct. 2011, URL: www.mckinsey.com/~media/McKinsey/Industries/Technology%20Media%20and%20Telecommunications/High%20Tech/Our%20Insights/The%20great%20transformer/MGI_Impact_of_Internet_on_economic_growth.pdf.
- [3] Johnson, Joseph. "Internet Users in the World 2021." Statista, 10 Sept. 2021, URL: www.statista.com/statistics/617136/digital-population-worldwide
- [4] Written by Will Martin, Markets Reporter. "How Technology Has Changed the World of work2018." World Economic Forum, 16 Apr. 2018, URL: www.weforum.org/agenda/2018/04/chart-shows-every-major-technological-innovation-in-the-last-150-years-and-how-they-have-changed-the-way-we-work.
- [5] Johnson, Joseph. "Number of Google Employees 2018." Statista, 8 Feb. 2022, URL: www.statista.com/statistics/273744/number-of-full-time-google-employees/#:~:text=At%20the%20end%20of%202021,were%20reported%20as%20Google%20employees.
- [6] Eira, Astrid. "Number of Facebook Employees2022/2023." Financesonline.com, 14 Jan. 2022, URL:financesonline.com/number-of-facebook-employees/.
- [7] Cgraham, Megan. "How Google's \$150 Billion Advertising Business Works." CNBC, 13 Oct. 2021, URL:www.cnn.com/2021/05/18/how-does-google-make-money-advertising-business-breakdown
- [8] Yifu Lin, Justin. "China and the Global Economy." Frbsf, 2013, URL: www.frbsf.org/economic-research/files/Lin.pdf.
- [9] Sunding, David. "Research and Technology Adoption in a Changing Agricultural Sector." Are.berkeley.edu, 2000, URL: are.berkeley.edu/~zilber11/innovationchptr.pdf.
- [10] Hossain, Shoyeb, and Huang Delin. "Technology Implication of Agricultural Sectors in China: A CGE Analysis Based on CHINAGEM Model." Researchgate, 2019, URL:www.researchgate.net/publication/336565375_Technology_Implication_of_Agricultural_Sectors_in_China_A_CGE_Analysis_Based_on_CHINAGEM_Model.
- [11] Jiahao, Bai. "Covid-19." Novel coronavirus

pneumonia is more than 76 million 850 thousand in the world, and there is a huge supply gap in the disinfection industry., 24 Dec. 2020, baijiahao.baidu.com/s?id=1686937338875964975&wfr=spider&for=pc.

- [12] Guandian, Zhinen. "Situation of COVID-19 protective equipment in 2020, COVID-19's impact on public health system and medical device industry Industrial Information Network,19 Mar. 2020, URL: www.chyxx.com/industry/202003/844233.html.
- [13] Published by Statista Research Department, Department Statista Research, and Nov 24. "Japan: Private IT Investment Market Size 2023." Statista, 24 Nov. 2021, URL: [te-it-market-investments/](https://www.statista.com/statistics/1101147/japan-private-it-investment-market-size-2023/).
- [14] KLASSEN, STEPHAN. "Population Population Density and Technological Change." Cesifo, June, 2004, URL: www.cesifo.org/DocDL/cesifo1_wp1209.pdf.
- [15] Pettinger, Tejvan. "Advantages and Disadvantages of Population Growth." Economics Help, 24 Feb. 2022, URL: www.economicshelp.org/blog/167320/economics/population-growth-pros-cons/.
- [16] Tamm, S. (2022, January 8). 100 essential E-learning statistics for 2022 - e-student. 100 Essential E-Learning Statistics for 2022. Retrieved April 8, 2022, from <https://e-student.org/e-learning-statistics/>
- [17] Turakhia, Bhavin. "Top 10 Technological Advances of the Past Decade." Flock, 2007, URL:blog.flock.com/top-technological-advances-of-the-2020