Technology Which Beats Covid-19

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ABSTRACT — We all faced a drastic change by Covid-19. It changes our day-to-day life and our economy also. Although it mainly affects our technology also. This research paper regarding to the what are the technology used in pandemic to beat corona virus and what are the after effects on technology by Covid-19. We are very glad to have such powerful technology with us, but main purpose to conserve it and built it to beat such big problems easily. Surely, these research paper will cover all the topics regarding which technology used and how this science is beneficial for us and of course for our economy.

Keywords — Android, Artificial Intelligence, Blockchain, Database, Nanotechnology, Robotics, Technology, Telehealth.

I.   INTRODUCTION

The corona virus that attacks and causes many drastic changes in the world is known as Covid-19. It is a biological or natural fight with not only humans but other living beings also. It does not affect life of human only but also the economy of whole world.

Covid-19 first detected to appear in Wuhan city, China. On 30 January 2020 World Health Organization (WHO) declared a global emergency against corona virus because it had spread over 18 countries.[1]

During this situation, all the schools, colleges, companies, and other work places get stops. As life of each person is our first priority. At this time only technology helps us from treating a patient to teaching students from comfort of their home. As we know technology has become our basic need as well. From the electricity to our new smart phone technology plays an important. This article is for getting known about which technology is useful in this situation and what are the new changes in technology.

This paper will specifically present the role of technology and information technology in order to respond to the Covid-19 epidemic. This paper is expected to be one of the sources of comprehensive information that involved role of information technology in the successful beating of Covid-19 pandemic.

II.   NEEDS OF TECHNOLOGY IN PANDEMIC

Technology was already added into our modern lives but during global pandemic it was the only one key to students learning, kept businesses running and families connected as we all faces hatches and tried to ride out the storm.

In this situation education changed dramatically. All student had to adapt and adjust to this 'new normal' style of learning. For this online platform is preferred and study goes online via platform like zoom, google meet and other applications. Digital learning has now become as a necessary resource for students and schools all over the world.

As in our day- to- day life all places of our uses technology the most widely used things is internet. Information technology plays the important.[2]

III. USES OF TECHNOLOGY IN COVID-19

3.1 Artificial Intelligence

In the case of Covid-19, AI has been used mainly to help detect whether people have coronavirus through the detection of visual signs of Covid-19 on images from computerized tomography, changes in body temperature through the use of wearable sensors, and the open-source platform to track the spread of Covid-19. The main use of Artificial intelligence is for making vaccine. A lot of time-consuming process is made easy with help of AI. Covishield, Covaxine, Sputnik are some vaccines on coronavirus. By the use of AI and computer-based technology scientist able to check various variants of corona virus and also how to deal with them. [3]

Other than medical use, AI also concerned with deliver medical supplies by drone, disinfect patient's rooms and scan approved drug databases.

During such epidemic rumors are very hazardous than main thing. Hence it is necessary to have right information with us. Certain AI applications can also detect fake news about the disease by applying

machine learning techniques for mining social media information, tracking down words that are sensational and identifying which online sources are deemed authoritative for fighting what has been called an infodemic. Some social media platforms like Facebook, Google, Twitter have partnered with the WHO to review and expose false information about Covid-19.

3.2 Blockchain

Blockchain application could can monitor disease outbreaks over time by creating 'ledgers' that are both secure and updated hundreds of times per day. Additionally, using blockchain improves diagnostic accuracy and treatment effectiveness, streamline the rapid isolation of clusters of cases, track drug supply chains and medical supplies, manage medical data and identify disease symptom patterns. Blockchain can reduce uncertainty and offer computational trust and an automated platform for recording and exchanging consistent factual information between multiple parties. In order for application of blockchain to bring added value to public health emergency context compared with traditional surveillance mechanisms it should make extensive use of its encryption characteristics combined with decentralized peer to peer engagement so as to improve security, regularity compliance, durability, consensus, timing and selective privacy.[3]

3.3 Telehealth Technologies

Telehealth technologies allow patients to be seen and diagnosed remotely by doctors via audiovisual, real-time, two-way interactive communication system. This includes computers, tablets and smartphones, chatbots and automated algorithms. Firs, it allows hospitals to be kept clear for confirmed cases: second it reduces virus transmission rates, as there is no risk of being exposed to the pathogen: and third, since it is available anytime, it can handle more patients than in-person care.

Also, by television or radio technology we get know about situation surrounding us. News of which area is contaminated or not gives us waring to where we have not to go. During this pandemic, television and the social media is the only source to connect with all society.[3]

Also, the family members can meet virtually with their love ones. For students Telecommunication is the only key to learn. Covid-19 drastically change education system. Students got highly impacted with this. There is need to not only teach students but also give them sprit to fight with this situation, to become mind fresh and happy

as well because it affects health of students also. Thankfully, all students and teachers are connected by internet. And internet has become only one string between them. The question arises is what we will did if no Technology is there?

3.4 Nanotechnology

Nanotechnology is a multidisciplinary field that makes use of nano-sized particles and devices for various applications, including diagnostics, targeted drug delivery and the production of new therapeutic materials. Nanoparticles such as gold and silver have been used in biomedical and diagnostic applications, for the detection of viral particles for instance.

It includes Graphene, Graphene tubes, quantum dots and nanoflowers. It is a technology by which we can perform nano changes in body. Also, it is highly demanded in health care to treat cancers.

3.5 Robotics

Robots are being deployed across the globe in the fight against the coronavirus pandemic. From robots that disinfect whole hospitals, decontaminate public and private sites, handle biohazardous waste or deliver food and medication, to robots that take patients temperatures and act as medical assistants, robotics technology is being used to reduce the risk of person-to-person transmission, especially in pandemic hotspots − as an intelligent solution to combat the coronavirus.[3]

Mainly following robots created:
- self-driving ultraviolet disinfection autonomous robots
- staffed by robots
- germ-killing robot
- delivery robots
- telemedical robot

3.6 Android Application

Number of applications has been developed to beat effects of Covid-19. The application is made which will give all people information about their surrounding contamination and risks of coronavirus, due to this we can take safety measures as required. "Aarogya Setu" is an Indian app about up-to- date information of Covid-19. For getting information about vaccines, vaccination centers, its availability and for taking appointment "Cowin" app is developed.

IV.   AFTER EFFECTS ON TECHNOLOGY

After this pandemic, world and its technology changes dramatically. Most of the changes are as follows:

4.1 Online Education Technology

All students got connected through online mode like WhatsApp, telegram, zoom, Microsoft teams, etc. As teaching method is change, the exam pattern also got changed. Mostly exams taken are Multiple Choice based questions which is in online mode. Various platforms like YouTube stand out like a one of the open sources for all people, where they can learn, entertained, and get connected to whole world.

4.2 Tech for Business

Small business had to face dangers situation during this pandemic. Some got stop also. But at the same time some business owner uses up-to -date technology such as online purchase, spreading their business to whole world by use of technology, as no one allow to travel dur to pandemic, but online platform connect their business with more than person connected with them before this epidemic. The Covid-19 crisis has accelerated the digitization of customer interactions by several years. Hence use of latest technology upgraded Businesses.[4]

4.3 Increase in Database

In this situation, use of internet goes up and large amount data is gathered due to same. Hence a lot of loads created on IT sector. As database increases there is need a large space to store that data. Hence Cloud computing, Database management and field grows suddenly. Due to this there was another role to store this data more securely. Privacy and security of database is key role in technology.

V.   BENEFITS

As no one can predicate correctly what will happen in future. This corona virus destroyed life of many people, but we always have to positive and see positive side of situation.

Due to use of technology only we are able to treat patients, we can meet our love ones through virtual meeting, students can learn from their home, lot of work get online and it saves our time.

The people, especially women who does not able to give time to their work due to their children, by the WFH (Work from home) method lot of women came back into their carrier and some them start their new business also, which is great thing.

Due this pandemic some creators, artist entertained audience through various channels like YouTube, Tiktok where lot of audience involved to get entertained in quarantine situations. [4]

This situation also gave a new task for scientist and researchers to find vaccine as a key to new healthy world. It builds ability to find quick results and medicines by use of technology.

VI. LEARNING FROM THIS SITUATION

Everyone got a lesson from this pandemic as every problem has solution, the task is to find it wisely. In this world nothing is impossible. Using latest technology, can keep you upgrade and also you can find your solution by using them. Don't go for daily working life, find your happiness as you got your childhood guitar in Lockdown, play it.
This situation tells us that, we forget ourself in this daily working life so, go outside nature is waiting for you. Do what you make happy.

VII.   CONCLUSIONS

This article is about how we won battle against Covid-19 by use of technology and also how this pandemic affect technology. Hence, Technology is not only a working thing but it has become a weapon against problems. Our daily working involves various things but they can't be complete without use of technology. We are very glad to have such technology with us, which was built up by great scientist. It is our role to maintain right technology use, to update it and to enhance its beauty.

REFERENCE

- https://ieeexplore.ieee.org/abstract/document/9211290
- https://www.bkkkids.com/blog/the-importance-of-technology-during-the-covid-pandemic/
- https://www.europarl.europa.eu/RegData/etudes/IDAN/2020/641543/EPRS_IDA(2020)641543_EN.pdf
- Google, Wikipedia