

Tech Trends of COVID-19 Pandemic

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Abstract: With the current outbreak of the novel coronavirus called several acute Respiratory Syndrome Coronavirus (SARS-COV-2) was first selected in Wuhan (Hubei, China) in December 2019. This disease has spread to almost all the countries in the world with hundreds of thousands of deaths. This study aims to review the tech trends topping the chart in the COVID-19 pandemic. It intends to highlight the impact of Information and Communication Technology (ICT) and how it has improved the quality of human lives by increasing business operations, economic and social activities in the world.

Keywords: COVID-19; Tech trend; ICT; Pandemic; SARS-COV-2

1. INTRODUCTION

Amid COVID-19 Pandemic, it is pertinent to have a closer look at the impact of technology and how it has been maximized to improve the quality of human lives by increasing the business operation, economic and social activities throughout the world.

2. TECH TRENDS IN COVID-19

2.1 Smart Office

This is one of the IoT applications that turns office equipment into connected things by using Sensor technology. This fulfills the overall environmental objective by lowering energy consumption protecting equipment and resource conservation, also improving the economy. It does this by reducing the cost of using the devices and improving the overall

quality of life. Official meetings like weekly meetings, conferences during the COVID-19 pandemic are now been done via zoom applications and Virtual Reality applications[3].

2.2 Delivery Drones

This also uses IoT technology to render automated delivery services of medical materials and blood during lockdown[4]. It is also used to make food deliveries to COVID-19 patients to reduce physical contact with the patient, making it timely, efficient and thereby reducing the spread of this life-threatening infection. For instance, JD.com, Pudu Technologies uses robots and drones to deliver medical supplies within the hospital and supply food to patients during lockdown periods. Companies like Walmart, Amazon, Domino pizzas have started testing their drones in accordance to the standards set by the US government and will soon deploy theirs for retail items and food deliveries. In Rwanda, Zipline medical drone company has been in operation since October 2016 for

transporting blood and medical supplies within the country and is set to move its services to the US government later this year thereby solving global problem rural health care at this crucial period[5].

2.3 Robot Workers

Due to lockdown, robot workers are now being used in most manufacturing companies to do a larger percentage of the workforce in factories for economic sustenance. It is pertinent for manufacturing companies to use robot workers during COVID-19 lockdown to ensure the sustainability of the company and eventually save lives[6].

2.4 Voice Technology and Smart Home

This is one of Artificial Intelligence-powered technology also known as Speech Recognition[7]. In [8] severe active respiratory syndrome coronavirus(SARS-COV-2) can stay on surfaces like mobile phones, plastic, stainless steel for 48-72hrs, this prompted phone makers to develop apps that use voice tech thereby reducing physical contact with phones like Google voice, Alexa, Youversion rest. In December 2019, a survey from Comscore Mobilemart speakers that allows the owners to stream music, ask general questions, make weather forecast and listen to sports updates with just voice tech[9].

2.5 Telemedicine /Asynchronous Healthcare

This technology uses autonomous Robots to treat patients with confirmed cases of COVID-19[10]. This is done to create a social distance between them and the patients thereby reducing the COVID19 spread among Frontline Workers. Most Hospitals, Clinics, and Private health. The US government has expanded the Telehealth consultation for Diabetics. The US government has granted

telehealth consultation to 50% of Medicare beneficiaries that allow Patients to get treated via videoconferencing and phone calls[11]. Asynchronous Healthcare is the process of giving virtual care in the treatment of chronic disease or life-threatening disease. In[12], One drop health management treats diabetic patients via self-tracking mobile app by offering services directly to their consumers like medical counseling, blood sugar monitoring device, glucose monitoring with the use of Bible app. Patients also have online access to online counseling thereby reduce hospital readmission, eliminates transportation cost and most importantly, relieving Front line workers for COVID-19 related medical issues[13].

2.6 Instant Messaging and Social Media

World Health Organization (WHO) in collaboration with Nigeria Center for Disease Control (NCDC) deploys a dedicated messaging service in English, Arabic, French and Spanish language to educate people on COVID-19 symptoms and how to stay safe. the use of Instant messaging via Twitter handles, Whatsapp and Facebook can reach nearly 2billion people, to update the general public on important global epidemic prevention and strategic information on COVID-19[14].

2.7 Social Virtual Reality (VR)

Due to the COVID-19 pandemic, where human interaction and social gatherings have been banned, sharing personal items with strangers like VR Headsets to play games in parks, explore travel destinations becomes a difficult task [15]. People can download social VR apps like Altspace VR, Rec room, IVR chat to communicate with their families and friends thereby eliminating social imbalance

and loneliness during this lockdown period[16]. Now, Businesses are exploring VR platforms to conduct training their employers, hold scheduled conferences, conduct meetings with their partners all over the world thereby increase sales continuity and sustaining the economy[17].

2.8 5G Connectivity

As demand for higher network bandwidth increases during COVID-19 Pandemic, to avoid a total shutdown of the economy, a worker needs an effective network for telecommuting. This has forced the 5G market to launch it earlier than the expected which will, in turn, increase the Internet of things(IoT) applications for a time like this with 5GIoT technologies[18].

2.9 Biometrics and Computer vision

In [19]Security sector uses Sensor technology like Biometrics companies like Baidu, Dermalog, and Tempo to apply the use of Biometrics technology to identify suspected cases of COVID-19 by combining facial recognition via Real-time CCTV cameras and temperature sensing technology. It makes use of RFID sensor and raises alarm if the temperature exceeds 99 F.SuperCOM Biometrics tracking technology uses ankle bracelets, fingerprint, a smartphone app to monitor quarantined COVID-19 Patients to reduce the careless spread of this severe respiratory infection.

2.10 E-Learning/ Online Education

The Educational sector has taken a quantum leap during this COVID19 pandemic by introducing E-learning which stands for

Electronic, Electronic, Enhanced, and Easy-to-use. It makes use of cheap and affordable technology like smartphones, personal computer and apps like Youtube, whatsapp, zoom making it easy-to-use for students to access across the globe. In [20], the Leading Group of the Ministry of Education of China to respond to the COVID-19 epidemic has issued the “About Guiding Opinions on Online Teaching Organization and Management of General Colleges and Universities during the Period, Notice on Supporting Education and Teaching with Information Technology during Epidemic Prevention and Control, and Several Suggestions on Targeted Teacher Work during Epidemic Prevention and Control Notice” on February 4, 2020. This has also increased the popularity of Massive Open Online Courses (MOOC), making different courses to be globally recognized. This has accelerated the integration of online education into the educational sector thereby reforming the teaching methods and improving the overall quality of education[21].

3. SUMMARY AND CONCLUSION

This paper has reviewed the technology trends topping the chart during COVID-19 Pandemic. This has touched virtually every aspect of human lives from managing businesses via AI technologies to improving our state of mind through Social VR and most importantly, continuity in learning with MOOCs. It has revealed the highs embedded in this pandemic. It has also informed us about the relevant technologies we can take up in other to survive this dark phase of our lives and not put our lives on hold.

4. REFERENCES

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