TECHNOLOGICAL INGENUITY IN COMBATING COVID 19: A STUDY IN KARNATAKA

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ABSTRACT

The outbreak of Covid 19 which is widely known as Corona virus was declared a public health emergency of international concern on 30th January, 2020 by World Health Organisation. As the cases increased across the world, Covid 19 was declared a global pandemic on March 11, 2020. The global pandemic has hit the nation also. A nationwide lockdown was imposed on March 24. It was important to address lot of needs - from migrant farmers to fake news. The state of Karnataka employed technology to support these unusual times. The present study aims to understand how the Government of Karnataka utilised technology media and media in combating Covid 19. The study also tries to understand the initiatives taken by the Government of Karnataka in spreading awareness about the novel corona virus. The paper adapts an exploratory method of study to gain a broader perspective. The study is anchored on Technological Determinism Theory. The scope of the study is that it will throw light on the present status of health communication in Karnataka and will further lend insights to improving the quality of health communication. The major limitation is that the study is based on secondary data analysis and the data used at time of analysis is specific to that time period.

Keywords: COVID 19, Corona Virus, Media, Technology, Pandemic

INTRODUCTION

World Health Organisation defines a pandemic, "As the world spread of a new disease. The pandemic has had implications on various aspects of life. In the last century, the world has witnessed three pandemics. The novel coronavirus is the most recent one and it has brought with it, life changing effects. The Corona virus had its epicentre in Wuhan in 2019 and has affected over 200 countries and territories globally, with 66.7 million people affected and more than 1.5 million fatalities in span of a year (upto 6th December 2020) since then. During these turbulent times and growing crisis, nations across the globe have implemented different strategies to address challenges associated with the virus. Science and technology are engaged with the arduous task of relentlessly curbing the spread of virus.

ORIGIN OF CORONA VIRUS

The Coronavirus (COVID-19) is a virus found in animals. The virus was transmitted initially from animals to human. It is believed that the wet markets / seafood market which is known for trading wild animals was the epicentre of the virus outbreak. The team of virologists from Wuhan Institute for Virology in a research paper stated that the genetic makeup of the corona virus is new and it is 96% similar to the coronavirus found in bats. Another study argues that the genetic sequence of the corona virus found in pangolins is 99 percent similar to human viruses. The mode of transmission was from human to human through droplets. The cases in Wuhan increased day by day. The city had patients reporting to hospitals with symptoms of pneumonia and SARI, without identified causes. The

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situation of China worsened and the virus started spreading, transcending the boundaries of China. All continents have been affected except Antarctica.

CURRENT SCENARIO IN INDIA AND KARNATAKA:

The first case of COVID-19 in India was reported on 30th January, 2020 in Kerala in a traveller returning from China. The second confirmed case was reported on 2nd February, 2020 in Kerala in a person who was travelling regularly between India and China. The third case in India was also reported in Kasargod, Kerala. As on 5th December, 2020 MHFW (Ministry of Health and Family Welfare) has reported 9.8 million cases out of which 9.14 million have recovered in India with 141k mortality.The below graph represents the corona cases in the country.
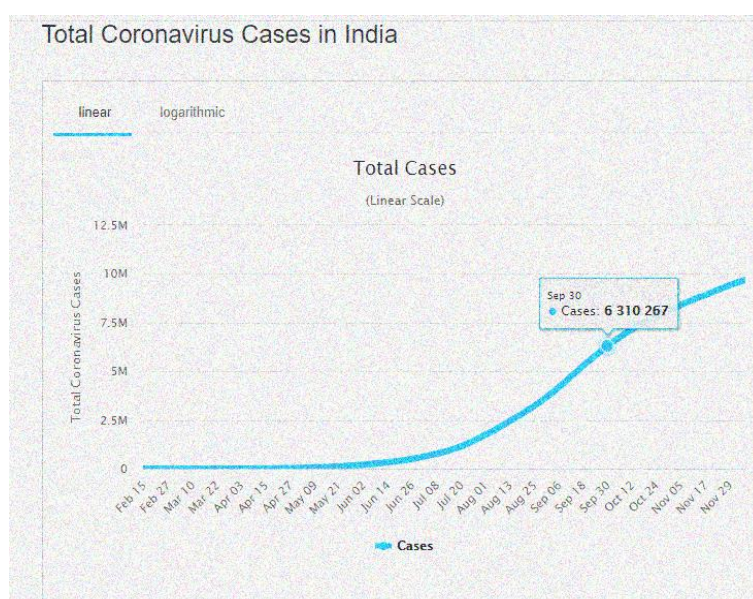

Figure 1: Representing the corona cases in the country.

Ever since the first case was reported in Karnataka on 9th March,2020 in an international traveller, two days later, the state became the first in India to enforce the Epidemic Disease Act, 1897. As on December, the state has reported 894004 cases out of which 24767 are active cases. The response strategy of the state, including contact tracing, isolation, and treatment is primarily guided by the use of technology and innovative approaches. The state has extensively used technology for data collection and dissemination of information through web-applications and telecommunications. The planned partnerships between the public and private sector, the support of IT Sector and community engagement, has contributed in strengthening the state's response to COVID-19. The State Task Force was chaired with senior officials and experts was set up to coordinate and guide actions in the field.

REVIEW OF LITERATURE

Kumar, Aishwarya & Gupta, Puneet & Srivastava, Ankita (2020) in their research, "A review of modern technologies for tackling COVID-19 pandemic" discuss the various aspects of modern technology used to fight the COVID-19 crisis at different scales, the study explains that the progress in modern technology and artificial intelligence has contributed in improving people's lives affected with corona virus.

Khandelwal, Anju & Agrawal, Ashish & Kumar, Avanish. (2020) in their research article, "An Outbreak of Coronavirus (COVID-19) Epidemic in India: Challenges and Preventions"

study the effect of COVID-19 on Indian citizens, their states of minds. The study also tries to understand the Indian Government's actions to manage the crisis created by the disease.

Kummitha, Rama. (2020) in their research paper "Smart technologies for fighting Pandemics: The techno and human driven approaches in controlling the virus transmission" explains that a techno driven approach may be more productive to identify, isolate and quarantine infected individuals but it also results in the suppression and censoring of the citizen views. He further recommends that human interaction with technology, mediated by a political and institutional context in tune with technologies be implemented.

Rajan Gupta, Saibal K. Pal and Gaurav Pandey (2020) in their study "A Comprehensive Analysis of COVID-19 Outbreak situation in India" explain the Covid 19 situation in India. The study gives a detailed picture of the exponential growth of virus in the country The study also concentrates on .

Lakshmiprabha, S & Mahalakshmi, K. (2020) in their paper, "Role of digital technologies and applications against covid-19 in India" explain that as India is a developing third world country with a large population and that information technology provides tremendous support to spread awareness and help governments in controlling the virus. The paper also identifies how digital technologies and its applications help people of India to manage the crisis of pandemic COVID-19.

Vaishya, Raju & Haleem, Abid & Vaish, Abhishek & Javaid, Mohd. (2020) in their research, "Emerging technologies to combat COVID-19 pandemic" argue that the technologies play a crucial role in disaster management. Smartphone-based applications are developed and are helpful for people and resources and even to determine if they are in contact with an infected individual. The use of artificial intelligence and an upgraded telecommunication infrastructure to 5G functionality could aid the crisis management.

THEORETICAL FRAMEWORK

The present critical times have made government and medical communities work overtime to curb the spread of the virus. Basic public health concepts like social distancing and awareness about the spread of new virus and handling the crisis was at the forefront. Today, due to science and technological advancements nations use technology to mitigate the situation.

The present study is anchored on Technological Determination theory. The theory presumes that a society's technology drives the development of its social structure and cultural values. Technological Determinism is a term coined by Thorstein Veblen (1857–1929), an American sociologist. The very first elaboration of this theory was given by Karl Marx who believed that technological progress lead to newer ways of production in a society and this ultimately influenced the cultural, political and economic aspects of a society, thereby inevitably changing society itself.

Most media academicians today associate McLuhan with the theory of Technological Determinism, which posits that technological development determines cultural and social change. When McLuhan first began studying Popular Culture using the methods he had learned as a study of literature that is, by treating the Popular Culture phenomenon as texts, as if they were books – he determined that the content of the texts was not nearly as interesting, or in his view as important, as the way the texts were being constructed. His focus turned to studying the influence of communication media independent of their content. "The medium is the message" his famous aphorism calls attention to this intrinsic

effect of communications media. What is communicated may not be so important as how it is communicated. He entrenched himself into a position whereby technology trumped the message in importance.

Later Langdon Winner provided two hypotheses for this theory,

- Firstly, that the technology of a given society is a fundamental influencer of the various ways in which a society exists.

- Secondly, changes in technology are the primary and most important source that leads to change in the society.

SCOPE OF THE STUDY

The study attempts to throw light on how the state of Karnataka has utilized technology in combating the pandemic. The crisis has reshaped health communication across the globe. In these critical times, access to authentic information is vital. In this view, it becomes more important to analyse the present status of health communication in the world and how technology could lead to change in the health communication sector.

OBJECTIVES OF THE STUDY

COVID-19 has affected many countries. It becomes crucial to address challenges in these times of crisis. The use of technology has been supportive in handling the crisis

Therefore, the objectives of this study would be:

- To critically examine the utilization of technology by Government of Karnataka to handle Covid-19 Crisis.

- To analyse the various initiatives taken by Government of Karnataka in this pandemic.

METHODOLOGY

The outbreak of COVID-19 has posed challenges to various sectors in the world. The present study is a prospective paper and tries to understand the nuances of the digital age and the use of technology for addressing the COVID-19 crisis. The study is based on secondary data analysis. The present study is confined to Karnataka only and hence is trying to look into the various initiatives and programs by the state that would help in a better understanding of this crisis management.

UTILIZATION OF MODERN TECHNOLOGY TO CURB COVID-19

Various technologies have been used to design, depict, and predict the huge information-based models. These technological initiatives such as artificial intelligence will help ease various concerns like accessing key information, tracing cases in the last 24 hours, comprehending testing rates, analysis of hospital bed/ventilator occupancy, etc. To combat the Corona virus, on one hand the major focus must be on the diagnosis of the patients and then virus, medical imaging process, disease tracking and its prediction. On the other, the focus should be on creating awareness and social control through the internet. The below list contains some innovations where technology is used in Karnataka to fight against COVID-19.

Development of Dashboard

The National Association of Software and Service Companies (NASSCOM) has developed an end-to-end Corona virus tracking platform for Karnataka. The dashboard provides the district-wise summary of testing, bed availability. This will allow real time streaming of data.

Application for Contact Tracing

Contact tracing is the most critical step to curbing the pandemic. The Government of Karnataka has developed its own app to enable building the database of infected patients and their contacts. The application has enabled sharing of such details across the state.

Corona Watch

The state launched the application to track the location of corona affected patients and their movement history for 14 days. The data gathered is also stored. The application also lists the government designated hospitals for COVID-19 where a person with symptoms can go. Also, a containment watch app has been developed to survey containment zones and ensure the provision of essential services.

Seva Sindhu Portal of Government of Karnataka

The portal was used to issue e-Pass during different phases of lockdown and unlock period for the movement of persons into the state. The data from the Seva Sindhu app is synced to the Quarantine Watch app which will help in isolation and quarantine process of travellers.

Karnataka Health Watch

The state launched a Karnataka Health Watch, a mobile application to map high-risk households and vulnerable populations through. The application will also help in tracking the older adults, people   with co-morbidities and pregnant women. A teleconsultation will also be provided for the affected.

Apthamitra Helpline

The state government also launched Apthamitra Helpline with a toll-free number and a mobile app, to provide online medical assistance to the people during the lockdown. The platform also follows up constantly with low risk patients until they are cured and also provides assistance in guiding to fever clinics.

Tele ICU Programme

The Tele ICU programme has been launched in the state with support from healthcare professionals and intensivists to train the ICU staff working in different hospitals across the state. Training is provided through the online platforms. This program has been of immense help in providing quality care to patients admitted at the district level hospital This model is getting replicated in other states now.

Karnataka Private Medical Establishments (KPME) Portal:

Through this portal the state has traced influenza like illness (ILI) and severe acute respiratory infections (SARI) patients, as people with ILI and SARI are at a high risk of developing COVID. The state made it mandatory to all hospitals to report such cases on the Karnataka Private Medical Establishments (KPME) portal. Through this, high-risk patients were on surveillance. The districts have also used Google forms and Epicollect to trace of high-risk patients.

Busting Fake News

During any crisis handling fake news is a major issue. It becomes important that the people have access to right information in such challenging times. To address this the State set up a full-fledged Social Media Centre and Control Room which is 24*7 operational. The Janasnehi team setup by the government started operating like a COVID Awareness and

Response centre for the general public giving the right information. It debunked fake news through its Twitter handle. They also created social media pages to provide and to facilitate essential information. A Facebook page and Telegram page, 'Covid-19 Karnataka Sahaya' has been created to answer the queries of the common man.

CONCLUSION

The world is battling a global outbreak of Covid-19, technology provides a fool-proof plan to fight these challenges. The Government of Karnataka made the right decisions and actions at the right time to control the spread of COVID-19. Being the IT Hub, Karnataka has used technology to handle the crisis. The state used all possible ways to spread awareness. They extensively used the Internet and social media to spread awareness about the pandemic. The response of the state to implement technological innovations to population through thorough screening, tracking contacts, allocation of resources, and use of mobile applications to provide surveillance serve as great examples. The state has created a solid foundation and for health communication while managing the pandemic.

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