Impact of Covid-19 on Digital Transformation

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Abstract

The study explores the impact of the COVID-19 Pandemic on Digital Transformation in India. It discusses the factors which pushed people to embrace technology. This Research is conducted one year after the occurrence of the first corona positive case. The researcher used the qualitative method to gauge the impact of COVID-19 on Digital transformation in terms of acceptance of Aarogya Setu app, e-learning and OTT platforms.. All the responses were discreetly analysed and interpreted. It was found that initially people were enthusiastic in reception of Aarogya Setu App, but in long run it couldn't become very popular because of technical glitches. In case of e-learning, private School, universities could easily shift to online mode than government ones. Keeping the benefits of e-learning in mind, educational institutions might adopt hybrid teaching method (Offline+Online) in future. Popularity of OTT platforms had augmented during pandemic. Netflix, Amazon Prime, and Disney+Hotstar were the most popular OTT platforms in India. Features like Diverse content, innovative pricing models & flexibility will help Internet streaming platforms to grow more in the coming years.

Introduction

COVID-19 was declared a global health emergency on January, 30, 2020. On 24 March 2020, Prime Minister Narendra Modi ordered a nationwide lockdown for 21 days. This was the first measure step of the Government of India as a preventive measure against the COVID-19 pandemic. As a result, 1.3 billion people were confined to their homes. Markets, offices, schools, universities, Movie theaters, modes of transport were suspended. After this one by one three more nationwide lockdown were exercised, this lasted till May 31 (Bansal & Hasin,2020). This was the time when technology came in handy. Keeping this in background, paper

will study the Impact of COVID-19 in paving way for Digital transformation in the field of health, education and entertainment.

Literature Review

COVID-19 has impacted our lives badly, be it personal or professional. During this time of fear and uncertainty, each other's support and accepting the need & early adoption of technology have played a vital role in the fighting pandemic. Whitelaw et al., (2020) point out many countries had adopted digital technology and integrated the same into policy and health care for effective implementation of surveillance, testing, contact tracing, and implement strict quarantine strategies. Jiang Nan & Ryan Julie, (2020) explains how authorities across the world had used digital platforms to provide official, trustworthy, and on-time information about COVID-19. 167 countries out of 193 worldwide updated their citizens about the information related to pandemic through national portals, mobile apps & social media platforms. In China, mobile phone locations, mobile payment applications have helped in collecting real-time data of people who had visited the Wuhan market, the epicenter of the pandemic (Wu et al., 2020).

Likewise, South Korea implemented tools for aggressive contact tracing, GPS data from vehicles and mobile phones to provide real-time data and detailed timelines of people's travel. With the help of digital technologies, free treatment, and early isolation, South Korea came as a role model for the rest of the developing countries (Lee et al., 2020).

In Singapore, the health ministry keeps a tab on individuals through a mobile phone application. This app records the data of encounters between people & stores it for 21 days, which can be used later for identifications (Andrews, 2020). A smartwatch did the same job in Germany. It indicated the alarming symptoms by measuring pulse rate, temperature, and sleep patterns (Busvine, 2020). In Australia quarantined people were put under surveillance with the help of tracking devices. In India Government of India launched the Aarogya Setu app to combat the spread of Virus. It is a Bluetooth-based digital service that helps in contact tracing, syndromic mapping, and self-assessment. This app reached more than 100 million installs in 40 days.

E-learning: Covid-19 has directly impacted education around the world. Schools and Higher Educational institutions were the first to be shut down following offices, markets, theaters in an attempt to control the spread of the Covid-19 pandemic. According to the UNESCO report, this had impacted 1.57 billion students across 191 countries. In India, more than 32 crore learners were affected (Sharma, 2020). However, Pandemic couldn't deter the spirit of teaching and learning.

There are 993 universities, 39931 colleges, and 10725 stand-alone institutions listed on the portal of the Ministry of Human Resource & Development (Kumar DNS, 2020). MHRD & UGC have made several arrangements on the governmental level to make sure the studies of students do not get affected by the pandemic. Many virtual platforms like e-GyanKosh an online depositories, e-Adhyayan an e-books platform, Gyandarshan an educational channel, and radio were promoted for students (Kumar Jena, 2020). Most of the private educational institutions shifted to e-learning by providing online classes for teaching and assessment activities on multi-device supporting video conferencing tools like Zoom and MS Teams, dedicated educational portals, and social media apps (Rajhans et al., 2020). However, E-learning has its limitation. Students from remote areas and marginalized sections have been facing massive hurdles in the form of resources and internet connectivity to carry on their studies during the pandemic. (Kapasia et al., 2020)

OTT platforms: Someone's loss is someone's gain. This happened in the case of film theaters and Over the Top platforms popularly known as OTT. Pandemic and lockdown collectively forced people to stay at home. The only option left for recreation was Television, People reluctant to watch TV Soaps and old movies wholeheartedly shifted their loyalties to OTT platforms (Bhavana, 2020). Boston Consulting Group (BCG) reports that pandemic has increased the growth of OTT platform subscriptions by 60%. (Pinto, 2020). As of July 2020, India had as many as 29 crores OTT platform users.

Increasing penetration of broadband, accessible high-speed smartphones, innovations in media streaming technology, customized OTT apps & innovative pricing models have made OTT popular. (Gupta, 2021). According to research conducted in August 2020, the lockdown has played a crucial role in increasing the popularity of OTT platforms. Average hours spending on OTT has gone up from 0-2 to 2-5 hours. (Madnani et al., 2020). This signals that the OTT popularity is not going to diminish but rise only after life returns to normalcy.

Objective

To study the impact of covid-19 pandemic on digital transformation in health, education and, entertainment sector

Research Method

Digitization is the demand of the day. Technology has become part of everyone's life like never before. This research was conducted to explore the motivation or compulsion behind this new shift. Researcher did a pilot study to identify three sectors where impact of covid-19 in paving the

way for digitization was more than evident. These three sectors were Health, Education and Entertainment. The research is qualitative in nature and used Case study technique. These case studies were done by content analysis & in-depth interviews. Three case studies were focusing on one aspect of the research. Out of these nine in-depth interviews, four interviews were conducted face-to face, three on telephone and two with the help of MS teams. All the interviews were semi-structured and conducted at length. To get more insight about the applicability of Aarogya Setu app, reviews available on App stores & Play stores were also studied. Age of the samples ranges from 19 years to 35 years. All these responses were recorded and analysed.

Interpretation & Discussion

Best of the Indian brains from industry, academia and government worked 24x7 for 21 days to build Aarogya Setu app. On 2nd April Government of India launched Aarogya Setu app to respond to the emergencies of the pandemic. People living in terror of being caught by the virus didn't take long to download this app. Within 13 days Aarogya Setu app was running on more than 50 million mobile devices (Burman, 2020). By August 2020, the app touched the mark of 15 crore downloads (PTI).

Aarogya Setu app built by the National Informatics Centre had already traced 85 lakh Bluetooth contacts till September 2020. Out of this 85 lakh, fifteen lakh had been tested & four lakh were found positive (Agarwal, 2020). Many private, government Organisations made it mandatory for their employees to download the Aarogya Setu app. It was found that Corona Warriors found it very useful, as the app used to alert them in case they would have come in proximity with an infected person. Now, moving a step further this app has been integrated with CoWIN. A digital platform, CoWIN helps to monitor the movement of vials and their availability at all centers. With the integration of CoWIN on Aarogya Setu app users would be able to download their inoculation certificates & access vaccine data (Rajagopal, 2021). The app was a blessing for people stranded abroad. These people had registered themselves on the Aarogya Setu app. Later government evacuated them with the help of the registered data on the app. But when it comes to utility people do not have high regard for the Aarogya Setu app, as they complain that it doesn't give proper alerts, and sometimes these come after days.

E-learning: Forced closure of educational institutions due to Covid-19 has paved way for the digitization of the Indian education system and it has worked only in pushing the sector forward with technological innovation and expansions (DNS Kumar, 2020). E-learning has become the new normal for teachers & students since the closure of the schools and colleges in March 2020. The sudden decision to go online didn't give ample time for schools-colleges to explore various options available. In jiffy schools & colleges grabbed Zoom, the most popular video conferencing app available for teaching. The purpose was not to falter the pace of education. But soon Indian Government raised the flag over security issues. On the other hand, MS Teams security policy ensured that none of the users' data would be shared with any third party provider. This made the school transition from Zoom to MS Teams & Google meet. Webex, Hangouts, GoToMeeting & Skype were some of the other apps used for various academic purposes.

During the research, many benefits and challenges of the digital shift in the education sector came to light. Closure of school & colleges was nothing less than an extended vacation for the students of all age groups. Initially, everyone was happy but soon excitement turned into irritation. It became difficult for them to stare at the laptop and mobile screens the whole day. As a result, students started getting depressed, annoyed and developed many health issues. The infrastructure was another hitch for governmental institutions to go online. While private schools, colleges smoothly started functioning online, government aided were struggling to get started. During the pandemic, teachers were instructed to teach through online learning platforms. Senior teachers, professors couldn't deal with so much technology of a sudden. Poor Internet connectivity also made it difficult for students to take uninterrupted online classes.

E-learning facilitated students to continue their studies during the pandemic. Many universities took entrance exams through the online proctored method. It was convenient to take classes from anywhere. It saved time and energy spent on travelling which in exchange increased productivity. Recorded classes gave the flexibility to access them anytime. All these benefits signal that e-learning is going to be an integral part of the Indian education system in post COVID-19 period.

OTT Platforms: Content is streaming on the OTT platform & OTT platform is streaming in the lives of people now. Lockdown has played a substantial role in mushrooming of OTT platforms. Before that, OTT platforms had a niche market in India. Now with the availability of OTT platforms such as Netflix, Disney Hotstar, Amazone Prime, Zee5, Voot, AltBalaji, MX Player, Sony Liv; audiences have a plethora of options to watch content that is localized with multiple genres & customized according to their personalities (Hattangadi, 2020). After doing a content

analysis of the interviews and available secondary data; it is been found that young people's preference in terms of entertainment has changed. Lockdown gave ample time to people to try new things. Since then Subscription of OTT platforms has gone up considerably high.

Netflix originals in movies and series have made Netflix the most popular streaming platform. In 2020, Netflix also partnered with Jio to provide a mobile-only subscription. According to Netflix, India has the highest film viewership on Netflix globally. Over 80% of the users have watched at least one film every week during Lockdown and trend continued later. Extraction & Raat akeli hai were the most-watched movies in 2020. It was the leisure time that gave the audience to watch diverse content. Viewership of Korean dramas in 2020 rose by 370% in comparison to the year 2019. Amazon Prime is second in the rank order and gives a tough fight to Netflix. With series like Family man, Paatal Lok & Mirzapur 2 popularity of Amazon Prime had only mounted. Alt Balaji had added 1.2 million subscribers to its base in the first quarter of 2020 only. When it comes to the users Disney+Hotstar takes the lead in India with over 400mn monthly active users. It has 8 million paid subscribers. Disney-Hotstar is popular because the sports events like IPL can be streamed live on it.

Youth is quite inclined towards the OTT, so are the young homemakers. According to a report by Media Partners Asia, an independent research provider; streaming services are estimated to have spent more than Rs 5,100 crore in India last year. As a result, over-the-top platforms will see services upping their budgets by 25-30 percent to stay ahead of the curve in 2021.

Study of Objective: Interviews and reviews available on app download stores point out that the Aarogya Setu app has helped in identifying infected people but it could not do wonders like similar apps in foreign countries because of some technical glitches. Still, it was a good attempt made by the Indian government & can be developed further to provide better services in the future.

The transition from offline to online classes was more than a compulsion than the choice. Video conferencing apps like Zoom, MS Teams, Google meet, Skype which were catering to business enterprises till now started focusing on this newly emerged market. MS Teams advanced integration of the ability to share documents & data made it a comprehensive tool for e-learning. We can say Indian education system is gradually adopting digital platforms and we can expect a parallel online education system along with the offline pedagogy in post covid-19 India.

In 2020 OTT platforms took the TV industry by storm & made it a year of watching the content online. With over 40 OTT platforms more and more people are choosing to subscribe to OTT

subscription over DTH because these have better content, original movies & series, faster movie premiers.

Conclusion

This research is an attempt to study not only the Impact of COVID-19 Pandemic on digital transformation but the future ahead. Had technology not been there, the world would not have been able to fight the Covid-19 pandemic. During this period technology saved us from doom. It saved the lives of our near and dear ones by early detections and timely treatment, Kept people virtually close with the help of video conferencing apps when in reality they were separated from each other. Students could continue their studies through e-learning mode. People were working from homes, ordering groceries online. OTT platforms entertained people by filling the vacuum created by closed movie theatres. Indeed, technology cannot avert the outbreak of Pandemics; however, it can prevent the spread and strikingly lessen the impact.

Future Scope of Research

This research is based on secondary data and nine interviews conducted for the in-depth understanding of paradigm shift during COVID-19. However, this can't be considered as representable for all age groups and social strata. In the future different researches can be conducted focusing on each aspect individually with proper segmentation.

References

1. Jiang Nan, & Ryan Julie. (2020). How does digital technology help in the fight against COVID 19? Worldbank.Org. https://blogs.worldbank.org/developmenttalk/how-does-digital-technology-help-fight-against-covid-19

2. Whitelaw, S., Mamas, M. A., Topol, E., & C Van Spall, H. G. (2020). Applications of digital technology in COVID-19 pandemic planning and response. *The Lancet Digital Health,* 2, e435–e440. https://doi.org/10.1016/S2589-7500(20)30142-4

3. Lee, D., Heo, K., & Seo, Y. (2020). COVID-19 in South Korea: Lessons for developing countries. *World Development 135,*105057. Elsevier Ltd. https://doi.org/10.1016/j.worlddev.2020.105057

4. Wu, J. T., Leung, K., & Leung, G. M. (2020). Now casting and forecasting the potential domestic and international spread of the 2019-nCoV outbreak originating in Wuhan,

China: a modeling study. Www.Thelancet.Com,395,2020. https://doi.org/10.1016/S0140-6736(20)30260-9

5. Kumar Jena, P. (2020). Impact of Covid-19 on higher education in India. *International Journal of Advanced Education and Research.*Www.Alleducationjournal.Com, https://www.e-yantra.org/

6. Rajhans, V., Memon, U., Patil, V., & Goyal, A. (2020). Impact of COVID-19 on academic activities and way forward in Indian Optometry. Journal of Optometry, 13, 216–226. https://doi.org/10.1016/j.optom.2020.06.002

7. Kapasia, N., Paul, P., Roy, A., Saha, J., Zaveri, A., Mallick, R., Barman, B., Das, P., & Chouhan, P. (n.d.). Impact of lockdown on learning status of undergraduate and postgraduate students during COVID-19 pandemic in West Bengal, India. https://doi.org/10.1016/j.childyouth.2020.105194

8. Arora, A. K., & Srinivasan, R. (2020). Impact of pandemic covid-19 on the teaching – learning process: A study of higher education teachers. Prabandhan: Indian Journal of Management, 13(4), 43–56. https://doi.org/10.17010/pijom/2020/v13i4/151825

9. Madnani, D., Fernandes, S., & Madnani, N. (2020). Analysing the impact of COVID-19 on over-the-top media platforms in India. International Journal of Pervasive Computing and Communications, 16(5), 457–475. https://doi.org/10.1108/IJPCC-07-2020-0083

10. Gupta, P. (n.d.). The factors effecting shift of Indian customers from T.V series to web series-The Future of OTT services in India. https://doi.org/10.36713/epra2013

Links

1. https://github.com/nic-delhi/AarogyaSetu_Android

2. Archived: WHO Timeline - COVID-19

3. https://economictimes.indiatimes.com/tech/information-tech/aarogya-setu-app-launched-by-goi-in-public-privatepartnershipmode/articleshow78916970.cms? utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

4. Aarogya Setu, the Indian contact search application, becomes open-source – Technology News, Firstpost | FR24 News English

5. https://www.firstpost.com/health/of-5-covid-19-lockdowns-in-india-1st-phase-most-effective-shows-data-but-policy-changes-have-not-eased-public-movement-8434601.html

6. COVID-19 lockdowns in India, 1st phase most effective, shows data, but policy changes have not eased public movement - Health News , Firstpost

7.   Aarogya Setu becomes open source (newsonair.com)

8.   https://www.itnonline.com/article/deployment-health-it-china%E2%80%99s-fight-against-covid-19-pandemic

9.   https://cities-today.com/singapore-launches-app-to-combat-spread-of-covid-19/

10. https://www.reuters.com/article/us-health-coronavirus-germany-tech-idUSKBN21P1SS

11. aarogya setu app: Aarogya Setu's new feature to help organisations get health status of staff, other users, Telecom News, ET Telecom (indiatimes.com)

12. https://telecom.economictimes.indiatimes.com/news/aarogya-setus-new-feature-to-help-organisations-get-health-status-of-staff-other-users/77694480

13. https://economictimes.indiatimes.com/industry/healthcare/biotech/healthcare/you-can-access-cowin-vaccine-info-on-aarogya-setu/articleshow/80739030.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

14. http://www.newsonair.com/News?title=10%2C800-people-from-Karnataka-registered-on-Aarogya-Setu-app-to-seek-evacuation&id=38783

15. https://theprint.in/india/education/in-india-over-32-crore-students-hit-by-covid-19-as-schools-and-colleges-are-shut-unesco/402889/

16. Impact of COVID-19 on Higher Education - Higher Education Digest

17. https://www.livemint.com/education/news/pm-modi-chairs-meeting-on-education-emphasizes-need-for-technology-adoption-11588352046875.html

18. https://www.financialexpress.com/opinion/covid-19-ott-platforms-go-over-the-top-amid-pandemic/2149267/

19. https://news.cleartax.in/role-of-technology-in-the-era-of-covid-19-pandemic/

20. https://www.business-standard.com/article/companies/covid-19-pushes-up-ott-subscription-growth-by-60-bcg-report-120121601311_1.html

21. https://www.moneycontrol.com/news/trends/entertainment/ott-platforms-to-up-budgets-by-25-30-this-year-6331391.html

22. https://www.livemint.com/news/india/netflix-likely-to-close-2020-with-4-6-million-paid-subscribers-in-india-report-11604309259509.html

23. https://www.indiatoday.in/magazine/news-makers/story/20210111-win-some-lose-some-1755080-2021-01-03