

ICT plays a vital role in social and educational sector on accidental occurrence of covid-19

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Abstract: In digital era, Information and Communication Technology (ICT) plays an important role in almost all spheres of our life. Application of ICT tools in social and educational sector has changed the total scenario of social and educational life. In emergency situations like spreading COVID-19 Disease, to overcome viral spreading of covid-19 some decisions need to be taken forcefully, various activities from various fields need to be stopped .in such cases, ICT tools are used to communicate with citizens of country in order to decide further strategy to run so as routine activities are going on smoothly. Because of covid-19 spreads in all over the world, most of the countries in world are locked down. All social, financial and economical activities are almost stopped, which may cause on economical growth of country. In such situation, only digital world which uses various ICT tools like Devices working on Satellite communication, Video conferencing, Internet, Drone camera's, CCTV Camera's, Aarogya setu app, various social media as per requirement, should continued their work without any interrupt. In educational sector, all schools, colleges and universities remain closed because of lockdown. This affect on academic loss of students. To overcome, ICT tools are used to prevent student's academic loss, helps to keep in student's touch, keep student's engage, assign some work to them and take response. This paper discusses definition of ICT, features of ICT, various components of ICT, how ICT tools provides services for social and Education sector, discuss how ICT tools are useful and may be used in emergency situations with live examples.

Index Terms: ICT tools, Social media, Video conferencing, Drone Camera, Aarogya Setu, Internet

I. INTRODUCTION

Internet is one of the primary source of information to search desired information because of which whole world became closer to each other. But in emergency situations like spreading COVID-19 Diseases, entire world is in trouble, face many problems, can't able to perform many routine activities smoothly in all fields such as industries, businesses, societies, lives of people and education etc., they have to maintain social distance.

In such situations, ICT plays an important role. ICT tools are used to communicate with each other and able to perform many routine activities smoothly of all fields.

Government of each country in world fight against spreading COVID-19 Diseases. Because of COVID-19 Disease, most of countries are locked down. All social, financial and economical activities are almost stopped. It's affect is on almost all spheres of our life .In social life, to defend their citizens, planned and implement various policies and use one of the ICT tool to increase the awareness among people about different plans and policies. By using ICT tool, communicate with citizens of country in order to decide further strategy to run, make citizens aware about different plans and policies, decisions taken, information about current situation, survey made for tracking etc.

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II. DEFINATION OF ICT

ICT stands for Information Communication Technology. Information Technology (IT) includes technology used for collecting, processing, manipulating, storing and protecting data. The processed data is known as information. Communication Technology (CT) refers to the use of technology for telecommunication, broadcasting media, audio-visual processing and for transmitting information through wired and wireless networks. It includes the internet, wireless networks, phones etc.

III. FEATURES OF ICT

1. **Transforming the society-** ICT has transformed our society into digital one which is known as 'Information Society'. It is a society which is driven by information in social, economic, political and cultural spheres with use of phones, internet, networks etc.
2. **Speed-** Interactions with use of ICT take place rapidly. We have real-time interactions in the form of chats, voice calls, video calls, emails etc.
3. **Research and Development-** it is easy to record data, sort, analyse and present it using computer software. Researchers can communicate his research findings through online platforms.
4. **Versatility-** ICT has as ability to perform multiple task at the same distance.one can play a video, work on an Excel sheet, download a file, transfer data to pen drive at the same time. Split screen function has enhanced versatility of smart phones.
5. **Precision-**ICT provides always precise output.

6. **Cost**-Considering the requirement of hardware and software, ICT can be expensive. But the expenses get justified considering the great reach and coverage it provides.
7. **Storage**-data can be stored electronically with the help of computers, hard disks, pendrives etc. Cloud or server based services like Google Drive, dropbox and icloud can also be used to store data.
8. **Facilitates learning**-Use of ICT in teaching implies the use of slides, Projectors, presentations, Videos, podcast, radio stream, interactive boards and online courses facilitate learning. These will lead to student-centered learning. ICT adds the element of flexibility and makes the student independent.

IV. COMPONENTS OF ICT

1. **Satellite communication**- India launched a satellite for communication called INSAT and for Education purpose EDUSAT was launched in the year 2004. Broadcast media refers to mass media outlets, such as television and radio stations. ABC, CBS, NBC, Fox Broadcasting, PBS & CW are examples of broadcast network.[11]
2. **Video conferencing**- It is a two way communication system. The use of television video and sound technology as well as computers to enable people in different locations to see, hear and talk with one another.
3. **World wide web**- The World Wide Web is one of the several internet resources developed to help, publish, organize and provide access to information on the Internet. The web was first developed by Tim Berners Lee in 1989.
4. **Social media**- social media like Facebook, Twitter, whatsapp are used for sharing messages, audio-video file, photos, images etc.
5. **Drone camera**-Drones are devices which fly without a pilot on board – they are remotely controlled, either manually (perhaps from a mobile smart phone or tablet) or through programmed instructions. They can be very large and heavy (often carrying cameras, with a big battery capacity to enable long range in the air), or small, lightweight and able to be carried in the hand (with very limited battery capacity and air time but more suited to indoor use in a classroom).[5]
6. **CCTV camera**-Closed Circuit Television (CCTV) also known as video surveillance. It is a system where all the elements like video camera, display monitors, recording devices are directly connected. CCTV also known as video surveillance, is the use of video cameras to transmit a signal to a specific place which are monitored, primarily for surveillance and security purposes
7. **Aarogya setu App**-Aarogya Setu, the government's Covid-tracker app, is helping govt in contact tracing, and also raised one's alert level if one was in the vicinity of someone who had been tested Covid-19 positive. It also provides guidelines about covid-19 awareness.
8. **E-mail**: E-mail is a most popular and excellent web-based media. Teacher can use E-mail for various purposes specially for delivering some web-based services. Through e-mail teacher should be able to send e-books, study material attachments etc. whereas students should be able to communicate with teachers by asking queries, questions, doubts etc.
9. **Mobile learning** : The term M- Learning stands for mobile learning., which means learning with the help of hand held technology such as Mobile Phone, Laptop and other portable devices, Mobile is a portable device, M-learning is convenient as it is accessible virtually from anywhere. MLearning means, acquisition of any knowledge and skill through using mobile technology anytime, anywhere that results in alteration of behavior (Tejwani & Silviya Thomas, 2013). Now days, Smart Phones are available in the market and they have most common features like laptop and computers, and they are relatively less expensive than Laptop and Computer. M- Learning also brings Strong portability by replacing books and a note with a small RAM's filled with tailored learning contents. It can download a PDF File or E-books with the help of Android or Windows Phone and store it in its RAM.[11]

V. APPLICATION OF ICT IN SOCIAL SECTOR

1. **Communications satellites** are commonly used for mobile phone signals, weather tracking, or broadcasting television programs. In lockdown Period of covid-19, following list along with references explains use of ICT Tools for various purposes in different situations.
 - A. In 'Man ki Baat' program, Indian Prime minister Narendra Modi convey message to Indian Citizens on 29th March 2020[1].
 - B. Through television broadcasting programs, Indian Prime minister Narendra Modi calls citizen curfew to fight corona virus on 22nd March 2020 from 7am to 9 pm [1].
 - C. Through television Broadcasting programs, Indian Prime minister Narendra Modi urges citizen for 'Let us switch off lights at home and light a lamp for 9 minutes at 9 pm on 5th April 2020.[2].
 - D. Through television Broadcasting, Chief Minister and Home Minister of Maharashtra convey some information to citizens about planning and implementation of different policies determined on impact of COVID-19.
2. **Videoconferencing** (or **video conference**) means to conduct a **conference** between two or more participants at different sites by using computer networks to transmit audio and **video** data. Each participant has a **video** camera, microphone, and speakers mounted on his or her computer.
 - A. Apr 2, 2020 - Sonia Gandhi held CWC meeting via video conferencing [3]
 - B. PM Modi to interact with CMs on April 27 through video conferencing[4]
 - C. PM Modi to interact with Chief Ministers via video conferencing[7]
3. **Drone Camera**-
 - A. PM Modi has announced 21 days lockdown in the entire nation to combat the deadly corona virus. Despite the lockdown people in various cities are stepping out of their homes and violating the lockdown rules. The Police are using drone cameras to

keep an eye on the violators of social distancing and lockdown. In a bid to maintain the lockdown amid COVID-19 outbreak, Police is monitoring the situation using drone cameras and making sure that people are not breaking the law on 10 Apr 2020[8]

B. Lockdown over corona virus: Mumbai police use drones to monitor situation[10]

VI. APPLICATION OF ICT IN EDUCATION SECTOR

In lockdown Period of covid-19, all school, colleges are remaining closed. To decide educational policies, to keep students engages various ICT tools are used.

1. Through Video conferencing, Principals and Staff members of school and colleges participate in meeting to decide what to do, how assign task to students and keep them engaging in their studies.
2. Through Video conferencing, students should participate in video conferencing to attend meeting, any online workshop/course.e.g. Zoom app,Cisco Webex meetings app.
- 3.



4. School/College teachers use social media like whatsapp to share audio-video files,images,PDF,documents on Mobile phones to engage students in lockdown period by assigning task like watch video, solve assignments, solve test and upload results etc.

Table 1: School Teachers Interacts with students about study through whatsapp.

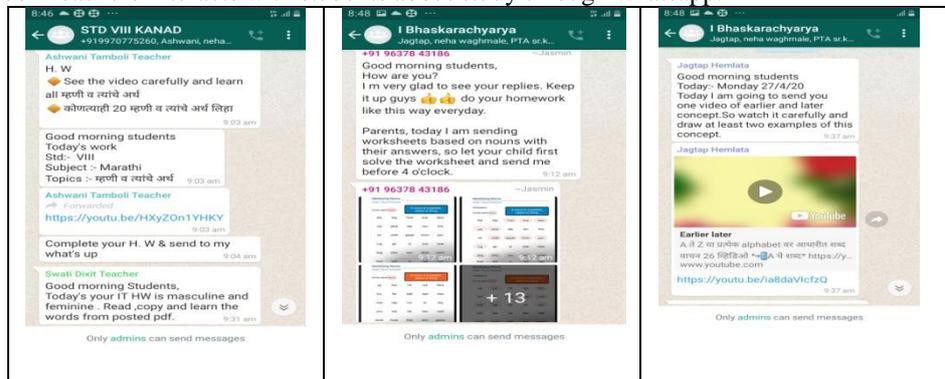


Table 2: College Teachers Interacts with students about study through Google Classroom.



5. Through Internet, create Google forms in order to make survey about awareness about COVID-19 Video “Coding with students – Using Tynker and coding with Drones” by Richard Poth – showing how to use the Parrot Mambo minidrone using the Tynker app in a classroom.[9][5]
6. CCTV cameras are the best possible safety for students, staff and valuable school equipment. When placed in the right areas of a school such as a corridor or outside areas, CCTV can be extremely effective, and should not be dismissed by key decision makers. Classroom CCTV can be a valuable tool in assisting with teacher training, enabling specific lessons to be reviewed - without the distraction of a teaching colleague in the classroom - and valuable feedback provided.

VII. CONCLUSION

In emergency situations like spreading of covid-19 diseases, working of all fields are stopped. Only online task are carried out by using various digital devices. In such situations, main aim of using ICT tools is to make every citizen digital literacy and awareness about beneficial use of ICT tools. So in complex and crucial conditions ICT tools make task quite easy.

REFERENCES

- [1]. <https://aceutical.technology.com>
- [2]. <https://www.narendramodi.in>
- [3]. www.news.abplive.com › News
- [4]. <http://newsonair.com/>
- [5]. <https://blogs.glowscotland.org.uk/fa/ICTFalkirkPrimaries/drones-in-the-classroom/>
- [6]. <https://news.abplive.com/videos>
- [7]. <https://news.abplive.com/videos/news/india-pm-modi-to-interact-with-chief-ministers-via-video-conferencing-1206826>
- [8]. <https://news.abplive.com/tv-show/sansani/drone-camera-captures-lockdown-violators-sansani-1194365>
- [9]. <https://youtu.be/mQe2cmOhWtU>
- [10]. <https://youtu.be/tBy2bI2b92g>
- [11]. Sudipta Deb Roy “Application of ICTs in Teaching-Learning Process”, *IRJIMS*, ISSN: 2394-7969, Volume-I, Issue-VII, August 2015,