

PHYGITAL TECHNOLOGY IMPROVES EDUCATION STANDARDS OF DIGITAL INDIA (IN CONTEXT OF ACADEMIC ARENA DURING COVID-19)

ANOOJA A & SOURABH MUNJAL

Assistant Professor (Kanchan Devi College of computer science)

Assistant Professor, Poddar Group of Institutions

ABSTRACT

Phyigital term is the combination of physical and digital. Mixture of physical education and digital education creates an improved and innovative education world. Phyigital technology creates an experienced and trained student as well as digital academic leaders. The recent example of phyigital technology is Online Classes. Due to covid-19, the world, as well as India, was totally in lockdown situation and some places are in curfew. During this pandemic situation, having the internet access ability through mobiles, laptops, tablets or desktop builds student and teacher's communication from their home or any other location easily. This helps to continue their studies without hurdles. This paper introduces the impacts of phyigital technology to create a physical and digital space in education sector as well as hurdles or difficulties for students and teachers. Phyigital technology can transform and create a new experience in every field like retail, aviation, marketing, health, education etc.

KEYWORDS: Digital, Physical, phyigital, Technology, Education, Students & Teachers.

INTRODUCTION

Phyigital term was first used in advertisement and marketing field. In education field Phyigital is a concept of smart learning which combines digital or online data and physical experiences or contexts. It relies on advanced technologies, contents, online study material and online lectures etc among the students. In the future, physical and digital space will not be apart. Live online classrooms are the first example to implement this concept. In phyigital education term we can't connect it with lectures from remote location but also adding new technologies for digital classrooms like removal of white board, digital structured syllabus or course material. Phyigital labs performing major roles in area of education they transforming what when and how teachers teach. Various Advanced technology app like Google meet made easy communication between students and teachers. Using the Google classrooms app students get notes, assessment records easily. Students and teachers felt they are in live classrooms. These technologies should attract the peoples to be more involved in digital learning. This blended learning makes students, research scholars, academicians to continue learn in any pandemic situation. Beyond the primary, middle, secondary and higher secondary education we have to focus on higher studies due to Covid -19 we can't step back in education sector. Honourable Prime Minister Shri Narendra Modi launched digital India programme to develop India. Through this program Rural and Urban areas are linked with internet facility. Phyigital India connects rural students and urban students simultaneously with digital technology and physical teachers without any hurdles. Students only need digital devices like mobiles or laptops. Digital learning is best solution for education in any pandemic situation. These digital platforms create online meetings, e-learning to continue academic curriculum, bio

informatics to predict drug targets, big data science to predict disease pattern, tele-hospitals etc.

Education future in Phygital spaces:

Phygital learning will remove gaps from existing education system. In India 37 million students are affected due to school closures in covid-19^[2]. Thus online learning demand arises for continuity of school college studies. When we stepped outside, we can see each and every person is busy in their mobile or digital devices. There are no boundaries among age groups. If we want rural urban students learn from remote locations with different experiences then we think about phygital space in education area. In India top institutions as well as small institutions started their online classes which appreciable. To configuring phygital environment then we must include IOT [1]. Using various technologies classroom become transform in digital learning room. Instead of using black board or whiteboard teachers must use monitors, projectors. In phygital space we can easily communicate data faster and record that data. This will enable students to learn new experience quickly.

CONFIGURING PHYGITAL EDUCATION ENVIRONMENT

If online education is given in proper and effective way then result will be productive. It will be going to beneficial for students and teachers as well as academic persons. Teachers or educators must present their lectures in more effective way like quizzes, slides, animations, spread sheets charts etc thus students will stay connected with their online classrooms. To create a link between online and offline spaces, we have to configure a phygital environment ^[3]

- Digitally structured Classrooms are potential for webinars, live discussion boards etc
- Digital submission of students works
- Updated technologies (AR and VR)
- Teachers are able to switch quickly from campus to online campus as per requirement

Phygital Education Helping Apps:

Apart from online classroom apps (Google meet, zoom, Google classroom etc) in which student teacher will communicate there is various apps are available for online studies like^[4]

a) Meritnation



b) Byju's



c) myCBSEguide



d) Vedantu



e) Vidyakul



f) Toppr



g) Whitehatjr



and various apps for government exams, coding, language etc which provide virtual knowledge for students which shows that best teachers are not available in classrooms only but in worldwide.

RESEARCH METHOD

Our research provides an experience shared by students of college level how they felt in online or phygital classes and how digital India make phygital India in education field. Qualitative research is used, as per literature it helps to generate proper research reports^[5]. I started my search with Google scholar, academic search elite and various online educational resources databases.

After pilot study I generated two broad questions—

How are you experiencing your Phygital classes?

How effective does it seem, for your future?

And spread it to 340 students across the India who are accessing online classes. I received 270 answers. In which 202 answers are in favour of phygital education.

STUDENT EXPERIENCES (US AND INDIA)

According to research of Stephanie J. Blackmon and Claire in US Major some findings about student experienced in online classrooms are as follows^[6]—

- Ability to balance school and family life
- Time management skills
- Personal responsibility
- Educator accessibility
- Connection with peers

According to survey of this paper in India some major findings about student experienced in online classrooms are as follows---

- 1) Time management skills
- 2) Attractive presentations
- 3) Knowledge in depth
- 4) Proper study material
- 5) Efficient communication
- 6) Active participation
- 7) Entertained studies

ONLINE EDUCATION IN INDIA

Digital India spreads internet facility in all urban areas as well as rural areas. It is predicted that by 2021, in India 735 billion users will use internet which leads to increase online education^[7]. According to estimation online education users will increase to 9.5 million by 2021 but it's possible that these figures will increase due to Covid-19 pandemic.

UGC (University Grant Commission) has also been actively supporting online education since 2018. Online certification courses are also active, so we can say India have great future in phygital education. Virtual Classrooms are best option to give traditional classroom experience. Many syllabi are theoretical in nature but with the help of hybrid models students can experience best phygital education environment.

Energized Textbooks^[8]:

Users can easily access digital contents by scanning QR code. This code can be scanned by mobile cam etc.

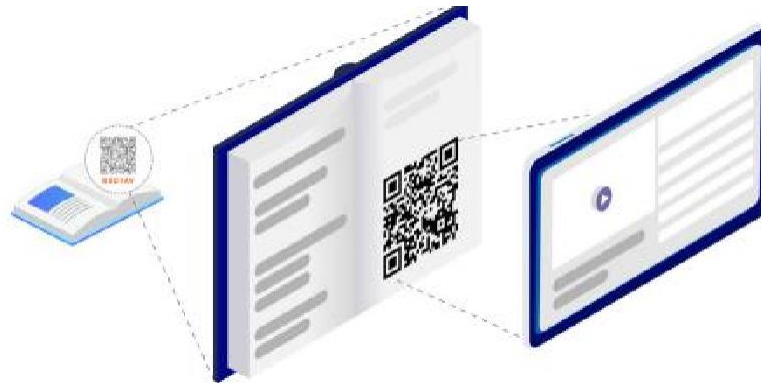


Figure 1

Some Institutions or organizations that Launched Phygital Education

- Sommet education institutions will provide Phygital academic program around October 2020. This curriculum fully depends on international who having travel restrictions etc due to any reason like Covid -19.
- India's biggest Information technology services company (TCS) ion has started to leverage both the physical and digital infrastructure to provide vocational courses across the country. Digitalizing the classroom program of central government is followed^[9].

PHYGITAL FRAMEWORK

Framework should be perfect and use to enhance education system. Knowledge of particular subject concepts must be clear. Face to face interaction must be there between students and teacher. Teachers must be skilled and updated, personalization is possible. Students have a clear path about their future. Phygital term collect data and use it for present as well as for future. Artificial Intelligence is used for store data. K-Modules are used to analyze big data.

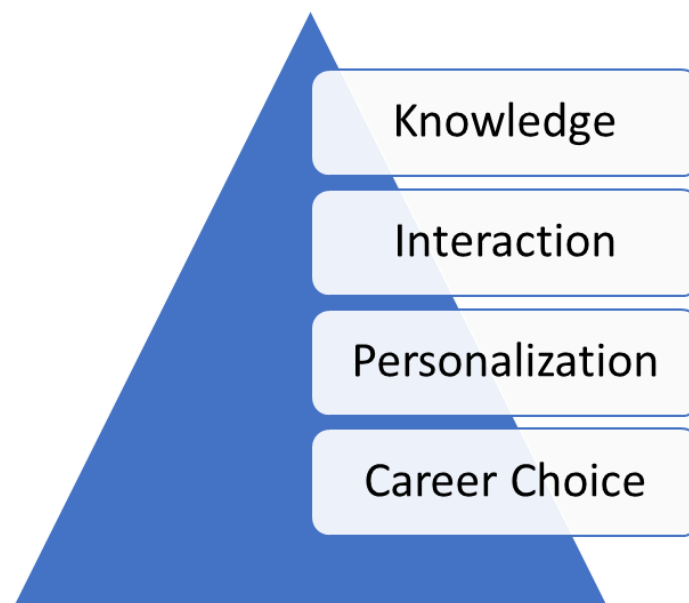


Figure 2

Traditional methods are not useful in current technology era. Predictive analytic algorithm is used to generate assessment ^[10]. The collected big data analyzed by various AI machines then input given to teachers who deliver interactive lectures. Through this way teachers would be aware about current requirement and teaching skills.

CONCLUSIOS

Phyigital Model is essential for current education world. Blending of physical and digital education is must for our future of India (Students). Phyigital world will not decrease the importance of teachers, lecturers, mentors and learners. It helps in proper utilization of Human brain and technology. This makes smarter choices for teachers and students. Cognitive abilities, skills, Teamwork enhance the education scenario of India. Digital India program and Phyigital India concept (Education, marketing, business, hospitality, travel etc) makes smarter India.

REFERENCES

1. 'Phyigital' the New Learning Space? <https://trenducation.wordpress.com/2019/07/11/phyigital-the-new-learning-space/>
2. Phyigital Learning
3. <https://www.businesstoday.in/magazine/special/phyigital-learning/story/412035.html>
4. Creating the Phyigital Footprint: Rahul Khanna <http://everythingexperiential.businessworld.in/article/Creating-the-Phyigital-Footprint-Rahul-Khanna/28-07-2020-302368/>
5. Top 21 education apps in India for online learning [2020 Updated]
6. <https://www.vdocipher.com/blog/2020/02/education-apps-india-2020/>
7. An Introduction to Qualitative Research Synthesis: Managing the Information Explosion in Social Science Research-Claire Howell Major, Maggi Savin-Baden
8. STUDENT EXPERIENCES IN ONLINE COURSES A Qualitative Research Synthesis <https://www.cu.edu/doc/student-experiences-online-classesqual-study.pdf>
9. Overview of online education in India <https://sannams4.com/overview-of-online-education-in-india/>
10. India report Digital Education, https://www.mhrd.gov.in/sites/upload_files/mhrd/files/India_Report_Digital_Education_0.pdf
11. Tata Consultancy Services <https://www.tcs.com/tcs-ion-reimagines-university-education-with-unique-phyigital-learning-program>
12. Phyigital Education Delivery Model - Need of the Hour! <https://edtechreview.in/research/3565-phyigital-education-delivery-model-need-of-the-hour?start=1>