ANALYSIS OF DIGITAL TOOLS OF LEARNING

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Abstract

Digital tools have become an important part of the education over the past few years. From a global perspective, India occupies an important position in the field of education. India is second in the world in the use of digital tools in the field of education. The digital tool changing the way of learning, concepts and theory of education. Digital tools can be defined as the use of a combination of technology, content and instruction in the education system to make the education more effective and efficient. Digital tools are fun learning for all students and particularly effective for child learning as the innovative audio-video feature boosts the cognitive elements in a child's brain. Schools are significantly adopting digital tools in their academic, and trying to make the classroom environment more inclusive and participatory.The digital tool equally significant for academic Institution, students, teachers and parents. Lots of digital tools have been evolved for education ie. SWAYAM, SWAYAMPRABHA, NATIONAL DIGITAL LIBRARY, e-Yantra, Virtual labs, e-gyankosh, Gyan Darshan, Gyan Vani, Diksha, SAKSHAT. In this paper we made an attempt to analysis the various types of digital tools run in India. The purpose of this paper is to give an attention on digital tools, types of digital tools, significance of digital tool and its challenges.

Keyword: Digital Tool.

Introduction

Education is a lifelong process, so it can be obtained anywhere anytime. There is a great need for it. The present time is of science and technology. Technology is used for the success and qualitative of any task because technical use makes the content interesting, simple and easy to learn. Information and knowledge are increasing continuously in education. Technology ensures our access to these information and knowledge stores. Traditional education system has been prevalent in India since the beginning, in which the teacher and students are present in the classroom. Teaching is done orally with the help of black board and chalk. But the modalities of education system are changing very fast.

Digital tools are programmes, websites or online resources that can make task easier to complete. Nowadays digital learning sounds as a catchphrase in the present scenario.The virtual classroom is not like the traditional classroom there are a lot of differences like geography increase time and size of class and time benefits. Students and the teacher can mutually decide geographically where their virtual class will be conducted so we can say virtual classroom are "Anywhere Classroom" with the benefit of being available 24/7 so the time limit in walls cannot constrain the teaching learning to happen. So, a lot of digital tools have been evolved during the corona period. MHRD has also initiated a lot of projects in the corona period to help students. Teachers in their teaching learning process projects such as SWAYAM, SWAYAMPRABHA, NATIONAL DIGITAL LIBRARY, e-Yantra, Virtual labs, e-gyankosh, Gyan Darshan, Gyan Vani, Diksha, SAKSHAT, and many more. As technology is an essential part of 21st century learners' authenticities, these tools need to be digital to be appropriate. When used for mapping digital tools elicit problem-solving behaviours in students which persist even when students are not using them (Chmielewski and Dansereau,1998).

Digital Tools of Learning by Government of India

There are so many digital tools available today that offer opportunities for promoting students creativity, student voice and expanding where and how students learn. Government of all the states and union territories of India use different digital tools of teaching learning to continue in the pandemic Corona period to make teaching-learning happen in a smooth way, so that the education for life time educators, students and teachers does not stop. The learners have access to education beyond classroom and at the comfort of their homes.Some of the platforms are –

❖ **SWAYAM: https://swayam.gov.in**
SWAYAM is a programme initiated by Government of India and designed to achieve the three cardinal principles of Education Policy viz., access, equity and quality. The objective of this effort is to take the best teaching learning resources to all, including the most disadvantaged. SWAYAM seeks to bridge the digital divide for students who have hitherto remained un-touched by the digital revolution and have not been able to join the mainstream of the knowledge economy.

❖ **DIKSHA:**DIKSHA is the national platform for school education available for all states and the central government for grades 1 to 12, and was launched in September 2017. DIKSHA can be accessed through a web-portal and mobile application. DIKSHA

provides access to a large number of curriculums linked e-content through several use cases and solutions such as QR coded Energized Textbooks (ETBs), courses for teachers, quizzes and others. As of July 2020, it is estimated that over 60 crore ETBs are being printed this year in India by 35 states and Union Territories, with more than 30 crore content plays and 200 crore page hits already on DIKSHA.

❖ **Consortium for Educational Communication: http://cec.nic.in**
The Consortium for Educational Communication popularlyknown as CEC is one ofthe Inter University Centres setup by the University GrantsCommission of India. It has beenestablished with the goal of addressing the needs of HigherEducation through the use ofpowerful medium of Televisionalong with the appropriate use ofemerging Information Communication Technology (ICT).

❖ **VIRTUAL LABS: http://vlab.co.in**
To provide remote-access to Labs in various disciplines of Science and Engineering. These Virtual Labs would cater to students at the undergraduate level,post graduate level as well as toresearch scholars.

❖ **e-GYANKOSH (IGNOU): http://egyankosh.ac.in**
A National Digital Repository to store, index, preserve, distribute and share the digital learning resources developed by the Open and Distance Learning Institutions in the country

❖ **NATIONAL MISSION ON LIBRARIES: http://www.nmlindia.nic.in**
The purpose of NationalVirtual Library of India is to facilitatea comprehensive databaseon digital resources on in-formation about India and on informationgenerated in India, inan open access environment.

❖ **NATIONAL LIBRARY**: http://nationallibrary.gov.in
The National Library isthe ape & body of the librarysystem of India. Serving as apublic library, it is a permanent repository of all documents published in India.

❖ **Unnayan Bihar**: Is a holistic learning project providing quality education in school was launched by government of Bihar. It runs in both ways that is online as well as offline. It consists of interactive videos of the school teachers leading in the improvement of learning outcomes of the learners.

❖ **Kishore Manch**: it was launched by government of Chandigarh. Thisprogramme is accessible via television.Through this the head of the school, teachers and monitoring team can track the progress of the learners. It covers the students from grade 9th to 12th class. It covers all the three streams i.e., science, arts and commerce for senior secondary level and mathematics, social science and science up to secondary students.

❖ **Samarth 2.0**: it is the online professional development of primary teachers up to 8 class in collaboration with IIM Ahmedabad government of Gujarat.

❖ **VanchanAbhiyan**: it was launched by government of Gujarat to improve the reading and comprehension levels of learners or students of class 3rd to 8th.

❖ **HarGharPathshalacampaign**: it was launched by government of Himachal Pradesh to engage students during pandemic COVID-19.This programme was launched to ensure continuity of learners learning from home.

❖ **Samadhan AI**: based educational chatbot - it was launched by government of Jammu and Kashmir. It was a platform developed by the government to interact with the learners regarding the runtime queries. This tool helps the students and teachers to get quick response to their educational queries.

❖ **Makkala Vani**: it was launched by government of Karnataka to engage students in useful activities during COVID-19.Theprogram telecast stories,songs, craft, magic shows and riddles.

❖ **Odisha ShikhaSanjog**: it was launched by government of Odisha. In this program students of grade 2nd to 10th participated, under this program WhatsApp group were created by teachers to send e- content through video clips, audio clips.

❖ **Project SMILE**- It was launched by government of Rajasthan.It was launched to ensure continuous learning of the learners from home for grades 1st to 12th in which students received videos related to their curriculum daily by their teachers on their WhatsApp group.

❖ **KalviTholaiKanchi** - it was launched by government of Tamil Nadu.It is a television channel for students. It was started to help the students to prepare for the exams in the comfort of their homes and beyond classrooms.

❖ **National Programme on Technology Enhanced Learning (NPTEL): http://nptel.ac.in**
The National Programme on Technology Enhanced Learning (NPTEL) was initiated by seven Indian Institutes of Technology (Bombay, Delhi, Kanpur, Kharagpur, Madras, Guwahati and Roorkee) along with the Indian Institute of Science, Bangalore in 2003.

❖ **e-PG Pathshala: https://epgp.inflibnet.ac.in**
An MHRD, under its National Mission on Education through ICT (NME-ICT), has assigned work to the UGC for development of e-content in 77 subjects at postgraduate level. The content and its quality are the key component of education system.

Significance of Digital-Tools

Digital Tools can increase student engagement and help teachers improve the lesson plans and facilitate personalize learning.It also helps students built essential 21st century skills digital tools can save teachers a lot of time. Test generators can create assessments in seconds and online learning management tools can help teachers provide quick feedback to learners. Some more benefits are

- Digital tools have more advantages of making education consistent secure efficient and effective. Many a times a student hesitate to ask a question to his teacher in classroom training but with digital education even if he does not understand anything at one go he can attend the recorded sessions to clear his doubts. Technology enables a student to learn at his own pace.
- Personalisation of teaching and learning - Instructors or teachers can set individual learning pathways for students based on their needs their interest or their level of proficiency.
- Digital tools caters to the shortage of teachers and lack of basic resources in rural India.
- A collaborative space for eg- Using an e-portfolio to share reflect on and evaluate a capstone project.
- Centralised and definitive data.
- Flexibility i.e no barrier of location and time. You can very well access your curriculum wherever you are.
- A Dedicated Communication hub.
- Consistency and transparency.
- Digital tools promote the active learning environment.
- Digital tools assures that every student get equal amount of learning.
- Digital tools are student-centered.
- With the help of digital tools, the students can learn at a fast pace.
- Students are more interested in learning through digital tools than traditional teaching methods.

The pace of technological change in society and in school have been exponential and will continue to be so. Teachers are using ICT to support their role in providing students with structure and advise monitoring the progress and assessing their accomplishments.

Challenges of Digital Tools

Internet speed & Technological challenges: Internet Speed is a major problem in India. According to a report by broadband speed analysis company UKLA, India ranked 128th in terms of mobile internet speed. The condition of internet speed is worse in rural areas, due to the power outages, the internet either gets stalled or you cannot hear and see anything. Apart from this, majority of students of the country do not have the resources to read and teach.

Language &Lack of e-content: Languages is one of the main barriers for the development of digital education in India, there are several different languages in different state have been spoken all across country, pushing all the digital content in all these regional languages some time becomes difficult for the agencies.

Insufficient funds: Digital tools involves effective and efficient usage of appropriate and latest hardwareand software technology available in the market. In developing countries like India, digitaltechnology implementation into education systems is a difficult task as it requires huge fundsand infrastructure. Through Digital India programme, the government has promisedavailability of funds for technology implementation but lack or insufficiency of finances leads to redundant and obsolete infrastructure and equipment's in rural schools.

Technology addiction and side effects: while learning with the help of digital tool, both a student and a teacher are spending about eight to nine hours online. Which is fatal to their mental and physical condition. Is even more harmful for young children. Apart from this, excessive use of technology also creates problems of depression, anxiety, loneliness etc. Effective thinking is needed to avoid these problems, so that they can save the future of the country.

Shortage of trained teachers:A major obstacle in the use of digital tools in rural area is the lack of knowledge andskills. There is a shortage of teachers, formally trained on digital technology. In some of the academic institution in rural areas, school teacher and college professors are not interested inusing digital tools for conducting classes. They feel that a lot of information is explained tothe students at one go through the digital medium and they prefer traditional teachingmethods of chalk and blackboard. In rural areas, primary teachers and senior teachers arereluctant to get trained and adopt digital technologies for digital education in school becausethey are in view that these disruptive technologies are out to replace them permanently.

Conclusion

Education sector in India has conferred a lot of changes which has helped the country to transform into a knowledgeable heaven. With so many different ways of educational approaches of transferring learning to the learner are creating a learning environment in the comfort of their houses during covid-19. It is the conclusion of this author that the digital tools of learning are an innovative approach to learning. All these digital tools create an environment of collaboration choice an array of technological resources that supports a successful online learning experience. However, the learners need to overcome the challenges more

awareness regarding the digital tools of learning need to be done to have proper utilization and access to education. Digital tools of learning are a boon to the society and benefits can be obtained by anyone at any time. E- learning portals and website should be owned by the governments of the particular country for easy and free access of these learning resources by the people were desiring to learn and equip themselves. Digital tool of learning a boon to teachers as well as they can save themselves from the repetitive classes and focus much on the students equipment in their respective subject as it saves a lot of time.

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