**“DIGITAL EDUCATION: A NEED OF THE HOUR”**

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**Abstract:**

Technology has swept and is sweeping fast in all spheres of life and almost everything is based on use of technology and application of ITC starting from communication, to visual and audio entertainment, electrification, security, travelling, voting rights to mention a few. Even education is transforming with rapid pace from being traditional chalk and talk based and book based study to internet based education system. The traditional class rooms with black boards are being replaced by smart classes fitted with audio and visual system followed by PPTs presentation. Teachers are been second by online teaching assistance by way of online tutorials and teaching aids provided by a number of online learning applications such as BYJU’S, Cue math, GuruQ.in, E-Pathshala, Google Classroom etc., which are providing on spot solutions to students. Text books are being replaced by e-books. The point to make is that we are moving far from physical way of teaching and learning towards virtual teaching and learning skills. This change in education system has produced vast advantage in terms of horning knowledge base of students and making them more confident to compete in the dynamic environment. Thus, to resolve the shortcomings of the traditional education system, the world is moving towards digital education which addresses all the issues and challenges of traditional education. Through this research paper, an attempt has been made to discuss the upcoming trends in digital education system that will shape the future of our coming generations for the better.

**Keywords: Education System, Digital Learning, Technology, Digital Education**

**INTRODUCTION**:

In the present scenario online teaching may seem like the logical method to continue imparting education.Education which is the basic fundamental of creating knowledge resource and the base of better lifestyle and promoter of happiness has also undergone exemplary changes with the development of economy and society as per the varying needs to suit the given environment. In India, if we go back to Vedic era education was imparted through Gurkul system where guru teaches the disciple in natural environment under the tree where students were under strict control, guidance and monitoring of guru and have to observe strict BhramcharyaJeeven. Thereafter, came the era of class room teaching and learning where education was imparted in instructive mode based on black board explanation and text books for further readings. With the opening of Indian economy in 1991 and with the emergence of information technology revolution the way of teaching and learning has changed enormously, where black boards have been replaced by smart boards, connected with LCD projector and computer, explaining the concepts to students not through the basic medium chalk and talk but replacing it with Power Point Presentations and talk, audio recordings and visual clippings. We are digitizing our education system and moving gradually towards paperless society thus traditional books are been replaced by e-books, paper assignments are been replaced by e-assignments in soft copy and so on. Even teacher – taught relation is going the electronic way through various tutorial web sites and on-line learning applications. The digitization of education has made available huge loads of information just at the click of button and has resulted in boundless material available to the end user who can quench the thirst for knowledge easily.

**Digital Education: Concept & Practical Understanding**

Digital Education is the innovative use of digital tools and technologies during teaching and learning and is often referred to as Technology Enhanced Learning (TEL) or e- Learning.Learning tools and technology enable students to develop effective self-directed learning skills. They are able to identify what they need to learn, find and use online resources, apply the information on the problem at hand, and even evaluate resultant feedback. This increases their efficiency and productivity. In addition to engaging students, digital learning tools and technology sharpen critical thinking skills, which are the basis for the development of analytic reasoning. Children who explore open-ended questions with imagination and logic learn how to make decisions, as opposed to just temporarily memorizing the textbook.

Educational tools by Young Digital Planet such as Bingiel teach children how to collaborate and work successfully in groups. This is typically done through gamification. Gamification is a great feature of interactive learning because it teaches children playing in a group to depend on and trust each other in order to win a game or achieve their goals. They also promote cooperation and teamwork which are very important skills, in every aspect of life.Interactive social skill games are excellent learning tools that teach children discipline because playing games requires children to follow rules and guidelines in order to participate. Even children who might grow frustrated with other learning methods may stick with games longer because playing itself is rewarding. This ends up helping them develop patience, another useful life skill.Children also develop positive feelings of accomplishment from mastering new knowledge and skills using digitized learning tools giving them the confidence they need to want to learn even more new things. It is commendable that millions of courses by the best educators are available for free to anyone with an internet connection. The possibilities are endless.

Digital education is a revolutionary method of imparting knowledge, especially since it levels the playing field for all students. India is home to the largest population of children in the world, with an estimated 430 million children in the age group of 0-18 years in the country. The state of education in the country, especially in rural areas has been deplorable, with challenges such as archaic teaching methods, shortage of teachers, highly disproportionate student-teacher ratio, and inadequate teaching materials plaguing the sector. Digitization of education helps in mitigating all of these concerns by providing multimedia teaching tools to teachers and engaging students through learning methods that utilise digital tools, such as smart-boards, LCD screens, videos, etc. It also makes it possible for one teacher to deliver information remotely across several locations, through interactive digital media addressing the shortage of teachers in the country.According to a report by the UK-India Business Council, India’s e-learning sector is expected to grow at a compounded annual rate of 17.4 per cent between 2013 and 2018, twice as fast as the global average. This, along with the government’s efforts towards building a digital future for its citizens with the Digital India program, and increased investment on Skill India campaign, is shaping an ecosystem which can foster the seamless inclusion of technology in education.

**Here’s why digital education is the way forward:**

* ***Customized Courses:***A good Learning Management System (LMS) can help shape information and add learnability quotient to it. With the right ‘knowledge management tools’ it is possible to design a ‘student-centred courses’ to impart education.
* ***No Language Barriers:*** Majority of India’s population is incapable of reading or writing English, but thanks to technology, learning material can digitally be made available in regional languages as well.
* ***Offline Learning:*** Connectivity is still an issue in India, especially in rural areas, but thanks to e-learning and m-learning initiatives, educators can access the content offline as well, that can be synced as and when internet connectivity is available.
* ***Open Education***: Open resources are an important part of online education that consists of freely accessible media for learning, teaching and research purposes. This allows students to gain access to an extensive array of study material fostering an ecosystem of free learning.
* **How Digital Education Is Transforming Teaching Methods:**

Schools are slowly looking at technology as an opportunity to develop teaching methods and resonate with students on a technology level. Regardless of age, almost everyone owns a smartphone. Google is our library, and Wikipedia is our encyclopaedia. Thesaurus is our dictionary, and Kindle is our textbook. At a time like this, learning to change our teaching methods by incorporating technology is the only way to bring light to the lives of our students.

**1. Smart Class:** Teaching with a whiteboard, chalk, and markers are now a thing of the past, and teachers have shifted to making use of projectors, VCD, DVD players and [eLearning system](http://www.wesuggestsoftware.com/listing-category/e-learning-system/) to display tutorial videos and short sessions online to help understand that learning can be fun too. Many schools now come with a TV or a projector attached to their whiteboard where it is easy to shift from a normal classroom session to an interactive digital session. This can make students pay more attention as we are now in the digital era where Google is our go-to place.

* **2. Being Digitally Updated:** In a tech-savvy world, education can become easily outdated, as there is always something new happening. Equipping students to be updated with news and other subject-related topics is the best way to teach students to grow as a person. Students spend most of their time on their laptops, their phones, and their iPads. Knowing what sources students can refer to, online, and knowing which websites offer the best information can be a great way to guide students.
* **3. Converting Books to PDFs:** Books are now taken to Kindle and other Tabs. Sending those notes, references, and other information in PDF formats that can be easily accessed on laptops, phones, and tabs is a good way to encourage students to choose to study better.
* **4. Encouraging Online Tests:** Training students on subjects by conducting fun online tests from time to time can create a good learning environment for them. Students can be given online quizzes and assessments that they can take from home, replacing general homework that they find excuses for.
* **5. Conducting Online Webinars:** How attentive are students when there is only a one-way communication with the teacher standing in front of a whiteboard? We find the classroom becoming noisy or students becoming easily disinterested in the topic. Conducting online seminars and webinars, enabling all students to engage in commenting and participating in questionnaires can help them stay alert. Keeping students interested throughout a lecture is an art and a talent that teachers need to have, to benefit from the entire teaching-learning process. It is very vital that students engage in seminars and the lectures involve two-way communication.
* **6. Supporting Online Research:** Similar to how a teacher is well prepared for a classroom session, encouraging students to be prepared too, can drive students to be excited about taking up classes. Online research is trending and people find exciting careers in Market Research and more. Asking students to find something online that is difficult to find or encouraging online research by giving them a list of things to find before the next class is a good way to keep students looking forward to more classes. It really does feel like a great achievement knowing you’ve found something that no other student could find. Giving them rewards or appreciating their online findings can encourage students to make the best use of the digital resources they have.
* **7. Creating Communities:** The interaction between a teacher and a student does not have to end at school, in a classroom. An online community is where a group or a team stay connected online, submitting projects, discussing topics or expressing ideas. Teachers can set a platform for students to communicate their ideas, suggestions and subject-related queries, for them to solve any time. Being open to online activities like these keep students more focused even outside of school, without realizing the fact that the learning process continues even after classes are done.

**EMERGING TRENDS OF DIGITAL EDUCATION:**

 1. Digitalized classroom/Flipped Class rooms a growing Trend: A complete revolution in the way we learn today has been brought by Technology. Teachers teaching in the classroom can capture the students and the full strength in the class by digital screens, thus facilitating each child to get the same base content and input from the teachers. This feature of digital era has increased the Student engagement as it combines various instructional styles. Each student gets in contact to world-class education, which is not easy to impart by the traditional white chalk and black board teaching. This new learning is more interesting, personalized and enjoyable. With this technological inclusion in the school teaching the students feel studying as enjoyable, easy, competent and above all interesting. The aim of a teacher however should be to create such an atmosphere which makes every student want to study.

 2. Video based learning: Video-based learning as a part of digital marketing has geared up in Indian Education Sector and has made education engaging, entertaining and exploring. It enables learning with a pedigree of learning out of leisure with creativity, fun and entertainment on cards via the wonderful Apps, podcasts, videos, interactive software, e books and online interactive electronic boards. Children are excited and operative with interest to manage the showcase via their intelligence, exploring the weak techno skills of teachers and assist them in public with pride and honour and recognition.

3. Massive open online course (MOOCS) &other distant learning programs: A massive open online course (MOOC) is an online course aimed at unlimited participation and open access via the web. India is considered to be the biggest market for MOOCs in the world after the USA. Since the population of India is huge, massive open online course (MOOC) are said to gateways for a lot of Indians in terms of bringing an educational revolution. Online distant learning programs give a great opportunity to avail high quality learning with the help of internet connectivity.

 4. K12 sector Game based learning: K-12 School is a terminology used as Kindergarten through XII grade. Various start-up companies have been the contributor for this sector. Today the world is of Y-generation people who are acquainted with the technological developments taking around them, and they are also surrounded with the required skills and abilities. K-12 creates the game based learning environment, which enables the learner to easily get the word of education in India and give us a better self-trained Y generation.

**ADVANTAGES OF DIGITAL LEARNING:**

 Digital Learning has become very popular with time. The following are the advantages of Digital Learning:

1. No Physical Boundaries: Digital Learning has no locational and time restrictions. In case of face-to-face learning, the location limits the group of learners to those who have the ability to participate in the area. But this is not the case in digital learning. In digital leaning, there is no physical restriction and the learner can attend the sessions anytime, anywhere according to his/her comfort.

 2. More Engagement: Digital learning is a more engaging experience as compared to traditional learning. Through digital learning, a course can be designed in a way that makes it interactive and fun through the use of multimedia. Even, the more recently developed methods of gasification can be used to enhance the engagement factor.

 3. Cost Effective: Digital learning is cost effective way of education as compared to traditional learning. This is directed towards both learners and teachers. In digital learning, here is a good chance that you don’t have to pay exorbitant amounts of money to acquire textbooks for school or college. As textbooks often become obsolete after a certain period of time, eLearning is definitely a cost effective way of learning because of the reduced cost.

4. Comfort Zone: Comfort zone can be established in digital learning as you can study at the time that suits you. In case of traditional learning where all the students have to present in the class when the teacher is teaching. The same is not the case which digital education. In digital education, the student can study at the time of his own comfort.

**MAIN REASONS FOR THE GROWTH OF DIGITAL LEARNING:**

• With nearly a billion people on mobile phones and over 200 million mobiles connected to the internet, there has been a considerable rise in digital learning.

• The use of best-in-class content, real-time learning and feedback methods, and personalized instructions has encouraged online learning.

• People are stepping towards digital learning as the Ed-tech firms are providing them the comfort of 'live and interactive' anywhere learning in digital format, through its online programs.

• These online courses are affordable and easily accessible.

• Digital learning aims to break the numerous barriers that are preventing people from receiving quality education in the physically bound classrooms.

**CHALLENGES OF DIGITALLEARNING & MEASURE TO OVER COME THEM:**

Digital Learning has become very popular with period of time. But it imposes certain challenges which need to be overcome. Someone rightly said, “Digital learning should be more about the human touch that just machines”. The following are the challenges of digital learning along with the measures to overcome these challenges: Resistance to change every improvement has two sides of coin, with one leading to advancement and development and other relates to certain challenges associated with the implementation of this advancement. Unfamiliarity of employees towards technology is one of the biggest challenges of Digital Learning, which the managers need to work with it. People commonly resist change, even if the changes are superior to what they had previously. They might not trust that a technology-based learning program will be as effective as interacting with an instructor. It's a fact that eLearning implementation can create enormous change within a company, so implementers can expect to face some resistance.

To overcome this resistance certain measures can be taken

• Refresher benefit: Feature of multimedia learning enables to makes the material more engaging. Easier to assimilate. At the time of refresher, such learning material will be at their fingertips when they want. This will enable to complete the learning within a span of time.

• Effective communication processes: Communication is the key to incorporate a digital Learning.

• Programme effectively. Communication will enable to understand and accept your digital Learning program quickly. It is important that, trainees need to know what benefits digital learning offers them, and what are the objectives, among other aspects. Learners Motivation Classroom which are run in the form of a seminar and discussion have the advantage of accountability and supervision.

One of the common challenges in digital Learning is that, left to their own devices, employees may not explore the course material. Even worse, employees may resent using their own time to do coursework, rather than enjoying the "vacation" from their everyday responsibilities afforded by an in-person seminar. Therefore, it becomes rather important and a big challenge on how can we keep our students motivated enough to complete the course.

• Incentives: Accreditation of the courses and certification gives employees a tangible goal that benefits themselves as well as the employer. More broadly, any job training that can lead to career advancement or resume building is valuable to today's employee.

• Appealing: One of the best methods to motivate your participants or audience is to make sure the Digital Learning courses you develop are visual and very appealing to the eye. Take a look at this info graphic, where you can get ideas on how to make eLearning more attractive. Technological Skills of Learners the Digital Learning implementation will be dependent upon the computer literacy of the employees using it. The ability of the learner's to access and interact with the course material dictates the utility he will get out of the program. To overcome this resistance certain measures can be taken:

• Adaptability: This eLearning challenge can be mitigated by scaling the complexity of the system to the needs of the course and of the employees. When the content being taught is fairly basic, a simple interface can be used to impart it; the complexity can be scaled up as the course material and technological expertise of the learner demands.

• Help when required: When students run into problems while using the Digital Learning courses, technical support services should be there, like live chats, auto-help buttons, emails, discussion boards. Availability of digital learning facilitators available will also make them feel they are supported in the programme. Evaluating effectiveness yet another important challenge of Digital Learning is the task of determining whether the course is having the intended effect. In the absence of pop quizzes and report cards, how can an employer tell whether the eLearning implementation is achieving its goals? Solution: Assessing the result is important, it is essential to know how many employees are using the Digital Learning program, how long they spend on it, and how many complete the course, but above this it is more important to know the performance reflects their newly-acquired knowledge. If they display the skills and information gleaned from the digital Learning program in their work, then the Digital Learning implementation has been effective.

• E-Learning should be more focused on knowledge creation rather than merely on knowledge acquisition. As knowledge is the integral part of this century.

• Developing collective cultural practices, physical learning is important as learning takes place between people and their cultural surroundings.

• Along with emotional and cognitive development, ell-being and Social and Emotional Learning (SEL) are also essential for the development of the students.

• Instead of computer-supported learning, it would be advisable to talk about new forms of Socio-Digital Participation (SDP). This includes media literacy, such as using social media and search engines.

• Constant reforms in schools and teacher education is essential for development. The schools are not following the important developments of society. There is no evidence that learning styles or types would be informative in designing learning environments. Alternatively, it would be advisable to observe users’ motivational profiles or study orientations. Meaningful and engaging learning methods are advisable, which support collaboration and self-regulation.

**Why Digital Education is the way forward for India?**

India is waking up to the realization that industry 4.0 needs education 4.0. With the digital transformation, we must radically alter both how we learn and what we learn. Our nation’s young minds as a collective generation that will constitute our future workforce. Digital education can encourage an independent inclination to learn amongst today’s youth and engage themselves in the vast sea of knowledge available to them. India’s online education market size is set to grow to $ 40 billion by 2017 from the present $ 20 billion.” According to a recent study in a global online learning program, after the United States, India has been reported to have the second highest number of online course enrolments with more than over 1,55,000 students from the country. By 2020 it's estimated there will be 1.5 million new digitised jobs across the globe. Today, however, 90% of organisations currently have an IT skills shortage, while 75% of educators and students feel there is a gap in their ability to meet the skills needs of the IT workforce. Research by the World Economic Forum estimates that 65% of children entering primary school will find themselves in occupations that today do not exist. It is imperative, therefore, for the education sector to prepare the talent needed for the digital economy, by adapting as fast as the increasing demand for IT skills. In order to affect change in the era of digital education, government, businesses and industry need to work together to ensure that digital education, in the greater sense, facilitates accessibility and wider societal inclusion, so that every individual learner, of whatever age and background, has access to the opportunity for digital learning and the benefits which digital technology can offer.

**HOW DOES DIGITAL EDUCATION BENEFIT THE CHILD?**

• Interactive: With digital education, classroom teachings have become more fun and interactive. Children tend to be more attentive. They are not only listening but also viewing it on the screen which makes their learning all the more effective. Here, sounds and visuals go hand-in-hand which is easy for the child to grasp.

• Attention to details: Interactive Online presentations or practical sessions in educational content through interactive screen time help the students to pay more attention to details which enable them to complete their activities on their own.

• Quick completion: Using tabs, laptops or notepads, instead of pens and pencils, motivates children to complete their tasks quickly.

• Vocabulary: Active online screen time helps students develop language skills. By reading eBooks or accessing study materials online, they learn new words and expand their vocabulary.

• Learn at his pace: Many a times, a student hesitates 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.

• User-friendly: The best thing about digital education is that it is user-friendly. You can very well access your curriculum wherever you are. You can learn on the go. Even if you miss certain classes, you can access the class notes and download files from the school website.

• Learn on his own: Also, nowadays, online study materials are easily available. Even if the entire education system is not digitalized, yet students can leverage the power of digital content depending upon their capabilities. So students, can access exclusive online study modules of various subjects, which help them to enhance their knowledge even without a teacher.

• External guidance: With online education, students can even further connect with distant counsellors and faculty to seek guidance or resolve queries.

**DISADVANTAGES OF DIGITAL EDUCATION FOR CHILDREN:**

 However, digital education also has its disadvantages:

• Expensive: First of all, it is expensive. That is why we see that most International schools and schools that have digital education are far more expensive than the regular schools.

• Infrastructure: To have digital education means, you need to have a proper infrastructure not only at schools but also at homes, particularly affordable broadband.

• No fixed schedule: Online learning requires much better management and rigid schedules, whereas in traditional classroom training, everything is as per a fixed schedule.

• Reduces creative abilities: Getting all answers on the net easily also reduces the children’s own creative abilities.

• Lazy approach to studies: This may lead to poor study habits and can develop in children a lazy attitude. Digital education can also make children forget the basic way of studying. Even for simple problems and homework, they are used to seeking help from the net.

• Security: Last but not the least, going online does not mean that your child is only looking for study materials. There are many things which a child might come across that are not good for him. Digital education has its pros and cons. So, students need to be properly guided by their parents and teachers every time they are going to use the online technology.

Traditional lectures may still exist along with the new-age learning tools and technology, but the lecture materials should be provided as a supplement to classroom activities and moved online for students to reference outside of the classroom. Classroom time is better used for discussing the curriculum, engaging in activities with teams and completing class projects. Students often have the option to pace their learning and even study ahead with a digital learning tool if they wish to do so. By helping children think outside their typical learning modes, digital learning inspires creativity and lets children feel a sense of accomplishment that encourages further learning.Digital learning tools and technology fill the gaps where traditional classroom teaching falls behind. In fact, some of the efficiencies such tools bring are simply unmatchable by traditional learning techniques. From the environmental impact recognized by the need for less paper for hand-outs and books to saving time with quick access to information and the ease of research, digital learning provides an effective way to cut costs, maximize resources and heighten both reach and impact for students and educators alike. Yet, there is a long way to tread before realizing the actual potential of Digital Education in India. Some of the prominent hurdles are Digital Literacy & Infrastructure. The majority of the Indian population still does not have the required internet bandwidth and many are illiterate in digital terminologies and devices.

**CONCLUSION:**

Digital education is fun learning for all cadres and particularly effective for child learning as the innovative audio-video feature boosts the cognitive elements in a child’s brain. The INFO-TAINMENT combination involved in digital learning makes it more practical, applicable and relatable to our life and surroundings in an interesting manner. There is no disagreement over the fact that digitization of education is the requirement of the hour in order to match the educational environment and system prevailing all over the world, but at the same time it has to be analysed as to how this system has to be adopted so as to nullify the adverse impact, of excessive dependence on electronic medium of information sharing, on the youth and protect them from behavioural and psychological imbalances. At the same time it is the need of hour that policy makers come up with such system which is a blend of traditional and modern ways of teaching that is protecting the teacher and taught relationship along with promotion of digital education system. Also measures be initiated that the students do not have access to information which is not meant for them and may misguide them to wrong direction propelling unsocial behaviour and violence thinking in them. We have to tackle our youth asset very carefully so as to convert them into meaningful population full of capabilities and responsible natives.

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