

Digital Readiness and capabilities for future learning

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Plagiarism Report

Abstract - Digital readiness and skills played an important role in this era. During covid -19 our education system had also been affected and interrupted but with the help of digital tools, techniques and applications, it was ongoing round the clock. Traditional classrooms were replaced by the digital classroom. Really , it was a drastic change in teaching and learning at every level i.e primary , secondary and higher education. In 2015 the Indian government initiated the digital India campaign to provide citizens with electronic access to government services by enhancing digital infrastructure and boosting internet connectivity to strengthen the nation's technological foundation. It was a flagship programmed with a vision to transform into a digitally empowered society and knowledge .It will work Properly when our education system becomes digital in nature. Education basically involves the teachers and the learners. Teachers are the reformers of society and students are the prospective citizens of our country. Digital readiness and capabilities make teachers and students more sophisticated. Digital knowledge and skills promote the trend of online or blended way of learning among the learners, which is working very effectively today. It makes a person smart and techno savvy and also helps to adjust in the present circumstances .So the digital Readiness and capabilities are the most effective factors to affect the Sustainable development of learning and teaching. This paper focuses on the importance of digital readiness and capabilities for future learning.

Keywords -Digital Readiness and Capabilities, Education, Teaching, Learning, Knowledge, Skills, Information and Communication Technology, SDG-4 (Sustainable Development Goals).

Introduction

Education is a fundamental right and essential for achieving sustainable development and global peace. All objectives of the 2030 agenda depend on education to equip individuals with the knowledge skills and values necessary for societal progress. The 1986 policy, revised in 1992 emphasized utilising educational technology to enhance education quality. The policy statement led to two measured centrally sponsored schemes , namely educational technology (ET) and computer literacy initiatives like CLASS laid the groundwork for the broader Central ICT @ School program introduced in 2004.Educational technology also found a significant place in another scheme on the up gradation of science education. The significant role ICT can play in school education has also been highlighted in the 2005 National curriculum framework.

The use of ICT for enhancing education quality is also a part of the Indian government server Shiksha abhiyan initiative moreover CABEs 2005 report on universal secondary Education strongly advocated for incorporating ICT in standard educational practices. With the convergence of Technologies it has become imperative to take a comprehensive look at all possible information and Communication Technologies for improving school education in the country. The comprehensive choice of ICT for holistic development of education can be built only on a sound policy. The initiative of ICT policy in school education is inspired by the

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tremendous potential of ICT for enhancing outreach and improving the quality of education. This policy endeavours to provide guidelines to assist the states in optimising the use of ICT in school education within a national policy framework.

Thus we see that it promotes universal, equitable, open and free access to education and ICT tools and resources to all students and teachers. Also promote the development of local and localised quality content and to enable students and teachers to participate in the development and Critical use of shared digital resources.

Today more than 262 million children and youth are out of school. Six out of one are not acquiring basic literacy and numeracy after several years in school. Ambitions are clearly reflected in SDG4 which seeks to guarantee inclusive equitable and quality education along with life long learning for everyone by 2030. The educational blueprint 2030 for action adopted in November 2015 outlines how governments and other stakeholders can implement their educational pledges. UNESCO is responsible for coordinating the international community to achieve this goal through partnership, strategic advice, skill building efforts, regular evaluation and support for education related initiatives.

This goal(SDG 4) ensures that all girls and boys complete free primary and secondary schooling by 2030. It further seeks to ensure fair access to low cost vocational training, bridge gender and income gaps and enable universal entry into quality higher education. A good quality education is one that provides all learners with the capabilities they require to become economically productive, develop sustainable livelihoods, contribute to peaceful and democratic societies and enhance individual well being. SDG-4 made some targets to fulfill by 2030. These targets are:-

- 1. Free and Compulsory primary and secondary education:-** By 2030 guarantee that every girl and boy finishes free, fair and high quality primary and secondary schooling leading to meaningful and impactful educational achievements. The provision of 12 years of free , inclusive ,equitable , quality primary and secondary education of which at least nine years are compulsory, leading to relevant learning outcomes should be ensured for all , without any discrimination.
- 2. Equal access to quality pre primary education:-** By 2030 ensure that all girls and boys have access to quality early childhood development, care and pre primary education. Offering a minimum of one year of mandatory and cost free education. Quality pre primary education is encouraged to be delivered by well trained educators.
- 3. Equal access to affordable, technical ,vocational and higher education:-** By 2030 ensure equal Access for all women and men to affordable and quality technical, vocational and tertiary education and to provide lifelong learning opportunities for youth and adults.
- 4. Expand the population equipped with essential skills for economic prosperity:-** Learning opportunities should be increased using a wide range of education and training modalities so that all youth and adults especially girls and women can acquire relevant knowledge skills and competencies for decent work and life.
- 5. Eliminate all discrimination in education:-** By 2030 eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities and children in vulnerable situation.

6. **Universal literacy and numeracy**:- By 2030 ensure that all youth and a sustainable proportion of adults both men and women achieve literacy and numeracy skills.
7. **Education for sustainable development and global citizenship**:- By 2030 ensure that all learners acquire the knowledge and skills needed to promote sustainable development, including, among others, through the education for sustainable development and sustainable lifestyle, human rights, gender equality, promotion of culture and peace and nonviolence and global citizenship.
8. **Build and upgrade inclusive and safe schools**
9. **Enhance access to higher education through scholarships** : Enhance access to higher education through scholarships, which can significantly support disadvantaged individuals and adults in pursuing their studies.
10. **Increase the supply of qualified teachers.**

So these are some targets to be fulfilled under the SDG -4. And somewhere digital technology can assist and help the teachers, learners, teacher educators and policy makers to achieve these goals for the betterment of our nation as the kothari Commission stated that the destiny of our nation is being shaped in the classroom . Hence digital readiness and capabilities play an important role for further demand in the educational field.

Digital Readiness

Readiness refers to being mentally and practically prepared to act digital pertains to tools and applications based on digital tech hands. Digital readiness means being open and prepared to adopt digital tools, using digital technology creatively to unlock new opportunities that help individuals, organisations , industries and Nations achieve their objectives more efficiently and effectively. We can say digital readiness is the capacity for people to engage with online resources with full information and services for all purposes. Many people who have the tools to access the internet, computer, tablets, smartphones and home broadband subscriptions lack adequate preparedness or capability to use online tools and platforms. So digital readiness plays a crucial role in effectively utilising digital tools and technology particularly in advanced education. Digital readiness and capabilities for further learning refer to the ability of individuals, organizations, or educational institutions to effectively utilize digital technologies to support lifelong learning and professional development.

Key Components of Digital Readiness

1. **Digital Literacy**: Possessing the skills to effectively use digital technologies, such as computers, smartphones, and software applications.
2. **Technical Infrastructure**: Having access to reliable and high-speed internet connectivity, as well as suitable digital devices and tools.
3. **Digital Learning Platforms**: Utilizing online learning platforms, learning management systems, and other digital tools to support learning and professional development.
4. **Data Literacy**: Being able to collect, analyze, and interpret data to inform decision-making and drive continuous improvement.

Digital readiness includes several things:-

- **Digital skills** include the ability to start virtual activities, navigate the internet and distribute digital content.
- **Trust** involves individuals' confidence in assessing online information credibility and protecting their private data.

These aspects influence the third element of digital readymades which reflects how extensively people utilise digital tools to complete tasks online

Levels of digital readiness may be :

1. **Basic**
2. **Developing and**
3. **Advance level**

Basic level includes basic infrastructure like digitization of equipment, establishing digital communication with others. Developing level includes effective Usage of ICT and internet . Advanced level includes mastery over the digital tools, techniques and applications. It equips man to adopt the digital changes around us and develops a positive attitude towards the digital world.

Digital readiness comes , sometimes from the inside i.e. self-directed where a person gets self-motivated to adopt the digital changes around us. On the other hand It may occur from external factors eg : when any other person or situation oriented you towards the digitization. so we can say that digital readiness is initiated by your own but may be sometimes through the other external factors.

Digital capabilities:-

Digital capability refers to the competencies and mindset essential for individuals and organisations to succeed in today's digital landscape. At an individual level we define digital capabilities as those which equip someone to live, learn and work in a digital society. At the organisational level we need to look beyond the capability of an individual and consider the extent to which the culture and infrastructure of an institution enables and motivates digital practices.

Capabilities for Further Learning

1. **Self-Directed Learning:** Ability to take ownership of one's learning, setting goals and seeking out resources and support as needed.
2. **Collaboration and Communication:** Ability to effectively communicate and collaborate with others in online environments.
3. **Critical Thinking and Problem-Solving:** Ability to critically evaluate information, analyze complex problems, and develop effective solutions.
4. **Adaptability and Flexibility:** Ability to adapt to new technologies, tools, and learning environments, and to pivot when faced with unexpected challenges or changes.

To build up the digital capability of an individual the six elements are important to adopt:-

1. **Basic ICT competence (practical digital abilities)**

2. Information data and media literacy (critical use)
3. Developing innovative digital solutions and engaging in creative digital production
4. Working together and communicating through digital platforms
5. Growth through digital education and training

Developing a secure digital identity and ensuring personal digital wellness

To develop digital capability at organisational level the six elements are needed:-

1. The digital mindset and practices embraced by an organisation
2. Quality and accessibility of digital knowledge and data
3. Conducting studies and fostering new ideas using digital tools
4. Communication
5. Education practices including instruction learning and evaluation through digital means
6. The hardware and connectivity systems supporting digital activities

Here are some additional points:

Benefits of Digital Readiness and Capabilities

1. **Improved Learning Outcomes:** Digital readiness and capabilities can lead to better learning outcomes, as individuals can access high-quality educational resources and collaborate with others more effectively.
2. **Increased Efficiency:** Digital tools and platforms can automate administrative tasks, freeing up time for more strategic and creative work.
3. **Enhanced Employability:** Developing digital readiness and capabilities can make individuals more attractive to employers, as they can adapt to new technologies and workflows more easily.
4. **Better Decision-Making:** With access to data and analytics, individuals can make more informed decisions, driving continuous improvement and innovation.

Challenges and Barriers

1. **Digital Divide:** Some individuals may lack access to digital technologies, internet connectivity, or the skills to use them effectively, creating a digital divide.
2. **Resistance to Change:** Some individuals may resist adopting new digital technologies and workflows, due to fear of change or lack of understanding.
3. **Cybersecurity Risks:** Digital technologies can introduce new cybersecurity risks, such as data breaches and cyber attacks.
4. **Over exposure to digital data:** over exposure to digital data may cause information overload entering once ability to concentrate and manage learning priorities. The abundance of digital information can lead to information overload, making it difficult for individuals to focus and prioritize their learning.

Strategies for Developing Digital Readiness and Capabilities

1. Professional Development Opportunities: Providing educators and professionals with training and support to develop their digital literacy and capabilities.
2. Investing in Digital Infrastructure: Ensuring that educational institutions and organizations have the necessary technical infrastructure to support digital learning.
3. Promoting Digital Literacy: Encouraging individuals to develop their digital literacy skills, such as through online tutorials and workshops.
4. Fostering a Culture of Lifelong Learning: Encouraging a growth mindset and a culture of continuous learning and professional development.

Future Directions

1. Artificial Intelligence and Machine Learning: AI and ML can enhance digital learning platforms, providing personalized learning experiences and automating administrative tasks.
2. Virtual and Augmented Reality: VR and AR can create immersive learning experiences, making complex concepts more engaging and interactive.
3. Blockchain and Digital Credentials: Blockchain technology can enable secure and transparent digital credentialing, making it easier for individuals to demonstrate their skills and competencies.
4. Human-Centered Design: Human-centered design can ensure that digital learning platforms and tools are designed with the needs and preferences of learners in mind.

So to become digitally ready and capable there is a need to acquire, develop and update digital literacy and competency within an individual or an organisation. To develop digital capability digital readiness is essential. More the readiness, the more will be the capability. If digital readiness will increase, digital capability increases itself. Thus the digital readiness is directly proportional to the digital capability.

Conclusion:-

So technology gives the equal opportunity of education to everyone. But there is a need to upgrade digital knowledge and skills to get this opportunity. Digital readiness and capabilities are the key elements for enhancing digital literacy and achieving sustainable development goals in education. Really digital skills and competencies made the learning ongoing and effective throughout the world. Digital literacy enhances the learner's interest and aptitude for the future learning. Today every child is using a digital way of learning. But after the reopening of schools and colleges he or she will get back to the traditional classroom. Then it will be difficult to move from the virtual classroom to the traditional classroom. Therefore a blended approach of learning can fill this gap and bring both the offline and online learning together in the same platform. But to adopt this approach a teacher should have digital readiness and capabilities. However it is not easy to take up this emerging trend suddenly, but gradually we can adopt it for future learning.

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