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INTEGRATION OF DIGITAL TECHNOLOGIES AND PREPAREDNESS OF HIGHER EDUCATION INSTITUTIONS (HEIs)

Dr. Madhumita Baidya[1], Ananya Baidya[2]
[1]*Assistant Professor, Department of Education, Sidho-Kanho-Birsha University, Purulia*
[2]*Research Scholar, Department of Education, Sidho-Kanho-Birsha University, Purulia*

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ABSTRACT
In the recent decade, the curriculum frame-workers and the educational stakeholders usually pay more attention to integrate digital technologies in Higher Education Institutions (HEIs). They opined that integration of such technology in the teaching-learning process may enhance the teachers' teaching competencies and enrich the learning experiences of the students by providing quality instructional materials. Hence, the present paper aims to provide the theoretical building of digital technology, digital education, digital curriculum and resources and digitalization in higher education. To meet the emerging demands in the domain of education, the Higher Education Institutions (HEIs) are required to possess the essential conditions that are necessary for the successful implementation of digital technologies in the existing curriculum. Therefore, the present paper identifies the role of Higher Education Institutions (HEIs) for integrating digital technologies and exclusively discusses the importance as well as relevance of such digitalization in Indian higher education system.

KEYWORDS: *Digital Technology, Digital Education, Digital Curriculum and Resources, Digitalization, Role of Higher Education Institutions (HEIs), Relevance of Digital Technologies in Education*

INTRODUCTION
In the recent decades, the integration of digital technologies has been gaining increased acceptance in the field of higher education. The educational stakeholders of the higher education system are constantly working in the designing and implementation of digital education as an effective form for students learning. Through this programme, students are encouraged more to use digital devices and technologies for the delivery of course content and programme instruction. Such massive use of digital technologies in the field of education has brought a digital revolution in the contemporary India. The policy makers and the curriculum frame workers have adopted necessary measures to incorporate digital tools and technologies effectively into the higher education curriculum. As a result, sharing of knowledge and information, collaboration of work, virtual classes, online meetings, innovative data searching methods and other navigation techniques are easily possible across the country. Despite of several efforts made by the educational stakeholders; the implementation of digital education has not been successful in many regions of the country. Moreover, in many cases, the introduction of digital education not only fosters significant possibilities but has brought several educational challenges, regional imbalances, and discrepancies among the individuals. Therefore, the existing digital education programme is required to be revised judiciously for optimum allocation of essential resources and to minimize the negative aspects hindering equal opportunities and accessibility of both the teachers and students in the field of higher education.

- **Digital Technology**

With the increasing demand of modern society and the advent of Information and Communication Technology in the field of education, it is therefore required to incorporate various facets of digital technology in higher educational institutions. Hence, a major paradigm shift has been observed in the overall system of education specially for higher education due to the adoption and implementation of digitally-equipped teaching-learning process. Digital technology in higher education enables individuals to be independent enough for solving various problems, decision-making processes, and modification of existing curriculum into a dynamic and appropriate one. An effective change in the classroom practices is needed for the use of digital technology in education rather than the acquisition of technical capabilities and skills only. At present, professional development of teachers are required to incorporate various digital technologies as an ongoing process of teaching and learning. According to **Kaur et al. (2016)** teachers should acquire the essential skills and desirable knowledge of digital technology to be professionally competent apart from imparting content knowledge to the students only.

Technology has immense potential to upgrade the existing curriculum and its structure. Recently, policy-makers and various other stakeholders in the sphere of higher education started paying attention towards the integration of ICT-based education with the traditional classroom learning and its ongoing curriculum framework. Hence, teachers are required to be confident and prepared enough in using such innovative practices for enhancing their competencies as well as upgrading the whole instructional approaches. Teachers should be

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equipped with all the necessary technical and pedagogical skills for effective teaching-learning process. **Awidi et al. (2017**) studied about the Kuwaiti teachers' perception and their readiness for implementing digital curriculum in the schools. In the paper, the authors determined the factors affecting teachers' readiness to integrate digital technology into the school curriculum such as knowledge, skill, time constraints, technical support, proper infrastructure. The findings observed that most of the Kuwaiti teachers are not ready to integrate digital technologies to implement digital curriculum at the school level.

Digital technology is significant enough in bringing about digital revolution for the progress of the society. Active use of digital technology can open new possibilities in the educational sphere mainly. Both the teachers and the students are constantly affected by the impact of digital revolution in the field of teaching and learning process to attain digital literacy as a basic competency. **Srivastava et al. (2018)** determined the role of digital technology to bring creativity and enhancing competencies in the teaching and learning methodology. The paper mainly focused on the perception of teachers regarding various challenges in using digital technology, discussed about various reasons behind such limitations and challenges, suggested proper recommendations for integrating new digital technology with the ongoing teaching and learning method.

- **Digital Education**

The word digital education is a commonly used term now-a-days in the field of education that fosters the traditional classroom teaching-learning process with the application of modern digital technical knowhow. Digital education aims to provide numerous opportunities to both the teachers and the learners in acquiring meaningful and personalized learning experiences, creating digital form of learning resources that would be easily available and accessible to all, maintaining a sound virtual environment for learning, adoption and use of techno-pedagogical tools and its approaches. Digital education encompasses various new concepts such as online learning, blended learning, flipped classroom materials, mobile learning, synchronous learning, webinar etc. In this contemporary situation, digital educational skills and its related capabilities, knowledge have now become key attributes of the individuals to engage themselves with the modern digital world efficiently. Hence, acquisition of digital skills is essential to adapt the emerging world of digital technologies for better proficiency and enhancement of competency.

The word literacy generally denotes the ability of an individual to read and write whereas the term digital literacy is a broad concept which means the ability to deal with digital tools and technologies and thereby act meaningfully upon digital media. That means a person to be called as digitally literate should possess all the qualities, skills, and required knowledge to deal with digital media platforms and technologies for engagement in online information sharing, active communication, analyze and use digital forms for designing any activities. Therefore, digital literacy requires necessary awareness, skills for reasoning, ability for divergent thinking, proper and meaningful understanding of the shared contents mainly of social issues, proactiveness, promptness in the attitude of the users. It has been observed that digital technology and digital literacy have advanced the society about the generation of youth employability and more productivity. The development of digital competency is necessary for life-long learning which acts as a basic indicator for the formation of knowledge society in this contemporary world.

According to **Pawar (2021**), digital literacy acts as a basic competency to achieve quality education in both the urban and rural society of modern India. Acquisition of digital literacy and application of Info-tech strategies have upgraded the existing teaching and learning process, instructional methodology, curriculum framing and thereby changing the nature of demonstration method and molding the role of teacher as well pupils in the educational activities. **Lea et al. (2011)** highlighted the issues and challenges for digital literacy in higher education system due to the prevalence of complex and rigid interrelationships that exist between the academic literacy and modern technological practices. In the paper, the authors emphasized upon more textual practice to understand the current changes that occurred in higher education rather than putting more attention to the digital technologies and their active applications.

In the present day, digital literacy is regarded to essential factor in the field of education since Information and Communication Technologies (ICTs) have already penetrated in various sphere of modern living society. Digital literacy encompasses the basic skills comprising of digital tools and processes that help to use and operate any digital media, online processing of information, their storage and proper retrieval, online sharing of knowledge and information through digital platforms and enable individuals to perform professionally needed basic digital computing skills.

Researchers have studied and reviewed various literary sources for analyzing the impact of digital technologies in the process of teaching as well as learning of students. It has been observed that digital technology is capable enough for bringing about equality in education by promoting social inclusion and reducing the unfavorable conditions hindering the path of access to quality education. Digital learning improves the overall efficiency of the education system and encourages parental engagement for the success of teaching-learning method. Digital learning may provide necessary assistance for overcoming any learning problem and thereby closing the gap in educational attainment at various stages.

Higgins et al. (2011) opined that digital form of learning tools and related resources could be helpful for the learners with special educational needs since those resources aim to provide greater practice for them ensuring individualized learning and can arouse motivation to learn effectively. **Masters et al. (2012)** opined that online training for teachers to make them confident in using digital technologies could bring satisfactory and better learning outcomes for the learners compared to that of any other teaching-learning approaches. **Zheng et al. (2014)** observed that digital tools in learning such as provision for laptops for secondary level science students to access any sort

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of resources digitally were very much effective in narrowing down the gap that exists between knowledge of the subject concerned and proper understanding of the related concepts specially in the science subjects. Thus, digital resources proved to increase interest among the students.

Proper execution of digital teaching as well as digital learning are possible when the teachers are able to identify and use the digital tools judiciously and effectively to achieve desired learning outcomes. For efficient application, teachers should possess the required knowledge and favorable understanding of this modern practice. Hence, successful usage of this innovative technology not only depends upon adequate access to digital tools and resources but also on the availability of necessary training and sufficient knowledge on the part of the teachers to utilize digital technologies smoothly.

Hess (2014) carried out investigations upon the impact of utilizing e-books by 9-10 years old in the classrooms of schools in USA where traditional printed books were being replaced by these e-books and teachers were being encouraged to use e-readers daily in the sessions. According to **Cheok and Wong (2015),** teachers' basic attributes such as attitude towards teaching practice, anxiety, confidence, self-efficacy are very much linked with the overall satisfaction and engagement of teachers with digital technologies. Hence, proper training, support and technical management are the pre-requisite conditions for the teachers to adopt with the modern technologies for effective utilization.

- **Digital Curriculum and Resources**

Digital curriculum means a digital course of study that are exclusively designed for imparting meaningful learning experiences to the students through digital platforms. However, **digital resources** refer to the digital learning materials or the course content that aim to support learners in their academic performances and bring better learning outcomes that include various forms of applications such as e-books, software programmes, websites, audios, videos, sound recordings, textual matters, graphics etc. Thus, the traditional form of curriculum needs to be revised to incorporate digital resources and technologies in education focusing on multidisplinary themes. Such form of digital curriculum tends to improve the thinking skills of the students by integration of relevant knowledge, experiences, and their adequate application. Digital curriculum and resources enable students to develop the digital skills facilitating their learning experiences, help them to navigate the relevant information. Digital resources may be used to provide timely feedback to the students. Hence, digital curriculum and digital resources have become an integral part of classroom in present times.

- **Digitalization**

To understand the concept of digitalization, it is necessary to know about the meaning and process of digitation since both the terms are closely associated. The term digitation can be regarded as the foundational connection existing between any physical objects or attributes and software systems. It is mainly concerned with the process of converting any physical objects into a meaningful digital form. Digitization is important in processing of data, their proper storage and easy transmission with accuracy and efficiently. On the other hand, digitalization simply denotes the accurate application of digital technologies to improve functioning of any business, trade or academics for bringing about new opportunities in revenue collection. It embraces the proper technical knowhow to collect necessary data digitally and thereby encouraging and improving the process of digitization. Digitalization aims to enhance the efficiency as well as the productivity of any business by minimizing the costs incurred by it.

The main purpose of digitalization in India is to ensure that the services provided by the Government of India are being electrically available to all citizens by improving the whole digital infrastructure and by accelerating online connectivity or by empowering the country digitally. It has been observed from various studies that digitalization in India has positively impacted upon the overall economic growth by increasing productivity, reducing costs, generating youth employability, enhancing literacy.

- **Role of Higher Education Institutions in Integrating Digital Technologies**

The major roles of the higher education institutions for integrating digital technologies are discussed below:

1. **Enhancing access to digital content:** It is of utmost necessary to establish equality in educational opportunities as well as digital equity since all the students and teachers may not have equal access to digital technologies and devices. Hence, proper Wi-Fi or internet connection and other sufficient infrastructural facilities may help to solve the problem confronting the learning opportunities for students and enable the educational stakeholders for conducting an effective teaching-learning process by teachers.
2. **Embracing full instruction of digital content:** The educational stakeholders especially the teachers may play a significant role in empowering students to utilization the digitally instructed learning material to the best of their abilities. Such full instruction of digital content by the teachers may enhance the accessibility of students in the field of education and enable them to develop their existing competencies.
3. **Emphasizing professional development of the teachers:** There must always be a scope for the teachers' professional development because it enables teachers to get acquainted with the updated productive skills that are necessary to impart quality education to students through digital platforms.
4. **Ensuring good network infrastructure**: Digitalization of education is not possible and successful without ensuring proper network infrastructure. Therefore, the higher education institutions must provide good hardware and software for assuring proper bandwidth connectivity to both the students and the teachers. This may help them to reduce disruptions caused in their higher education due to network issues.
5. **Virtualization of desktops for both teachers and students:** The Higher Educational Institutions must

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investigate the matter of virtualization of desktops for both the teachers and students through the application of appropriate software. Such technique would enable the users to access any application for their academics from any devices. Virtualization of desktops provide better accessibility along with more security to the students in their field of studies.

6. **Upgrading the existing hardware and network infrastructure:** The higher education institution must acquire the basic quality hardware and software and take essential measures for timely upgrading those to ensure good connectivity, storage options, accuracy, and flexibility to the users.
7. **Integrating varied range of digital technologies in to the curriculum and instruction:** The Higher Educational Institutions (HEIs) must adopt measures to integrate different range of digital technologies in higher education curriculum so that the students may obtain the necessary study materials and relevant information on time by using such technologies. Integration of digital technologies aims to support the classroom instruction with computer skills and create conducive environment for meaningful learning experiences.
8. **Use of electronic resources to assess students' performance:** Use of digital technologies enable students to complete their course assignments timely as well as provide them opportunities to know their performances quickly. Assessing students' performance has become easier and smoother using electronic resources.
9. **Helping students navigate the digital technologies in education:** It is extremely essential to encourage and help students to navigate the digital resources and technologies for their education by the teachers. For this to happen, the educational stakeholders and the higher education institutions (HEIs) must look forward towards the issue of equity and accessibility, equal opportunities for all to the existing infrastructural facilities.
10. **Reducing the degree of digital divide exists in the field of education:** The Higher Education Institutions (HEIs) must take initiatives for providing equal and accessible digital learning opportunities to all students across the country. The institutions must ensure proper, affordable, and accessible digital platforms and services for learning to all students. The Higher Education Institutions (HEIs), policy makers, curriculum framers, and other educational stakeholders must implement the necessary policies for integrating digital technologies into the curriculum as well as ensure internet-enabled services to all students to meet their learning needs.
11. **Encouraging higher level of student's engagement in representation, expression, and participation in digital education:** The Higher Education Institutions (HEIs) must promote engagement of students in varied programmes of digital education. For making the digital education successful in higher education, it is essential to encourage them for using more digital tools, learning spaces, and technologies, helping them to acquire the digital skills for more communication and interaction, providing opportunities for self-assessment, motivating them for personalized learning.
12. **Organizing physical space to facilitate digital education:** It is important to organize the classroom environment in such a way to facilitate digital education through effective management of instruction. The Higher Education Institutions (HEIs) must organize the physical space of any classroom for maximizing the students' opportunity to learn. This also tends to increase the active involvement of students in their studies.

- **Relevance of Digital Technologies in Education**

The significant relevance of digital technologies in the field of higher education are discussed below:

1. **Wider access to educational resources:** Using digital tools and technologies, it becomes very easier for both the teachers and the students to access a wide range of relevant educational resources required by them.
2. **Enhance student's engagement:** It becomes possible to enhance more engagement of students in learning activities through the utilization of digital technologies. The teachers may engage more students regardless of their geographical location for imparting education using digital platforms.
3. **Technology-based assessment and understanding students' performance:** A notable advantage of using digital technologies in education is digitization of assessment procedures for the students. Such techniques generate more accurate and timely result for evaluating the academic performances of the students. Thus, such technologies assist teachers to monitor students' progress in their studies and thereby guide them in formulating appropriate learning strategies for bringing better learning outcomes of the students.
4. **Effective demonstration of knowledge:** It plays an instrumental role in effective demonstration of knowledge. Digital technologies make the learning session of the students more interesting and interactive. It allows students for independent thinking, deeper understanding of the content through the access of diversified learning materials repositories. Application of flipped classroom, eBooks, lecture recordings, blended learning approach, online spreadsheets are some common examples that may be used as innovative teaching learning processes to obtain the desired educational goals.
5. **Encouraging collaborative learning:** One of the important aspects of using digital technologies in education is provision of the students for collaborative learning. This enables them the opportunity for interactive learning and develops several capabilities for solving real-world problems.
6. **Personalized instruction:** Utilization of Digital Technologies play a very significant role in facilitating

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personalized instruction for the students. It encourages students for independent and self-directed learning. It helps students to identify their learning requirements, guide them in acquiring learning resources and enhance their efficiency of using digital technologies effectively in a sustained manner.

7. **Personalized professional training:** Integration of digital technologies into the higher education curriculum promotes personalized professional training of the learners greatly. Such approach improves the knowledge base of the learners, their experiences, reasoning skills, communication skills for performing any productive work for the society. It enables the learners to accomplish any tasks digitally and prepares them for varied economic activities by improving their employability**.**
8. **Acquiring 21st century skills:** The effective and judicious utilization of digital technologies in education allows students to acquire the important 21st century skills such as problem-solving skills, reasoning and judgement, leader skills, communication, and management skills etc. By acquiring such skills, students may learn to utilize digital tools and technologies in education in a very strategic as well as responsible manner. Such 21st century skills may enable them for their life-long learning in future.
9. **Sharing knowledge and experiences:** With the advent of digital technologies in the field of education, the sharing of knowledge and experiences among each other have become easy and smooth. The information and communication technologies have paved the way for more communication and interaction for all by digital platforms such as mail, virtual meetings, webinars, video conferencing etc.
10. **Collaboration of several works and documents:** The relevance of digital technologies in education may be easily understood through the collaboration of scholarly works and documents among various participants across the country as well as worldwide. By using digital technologies, it becomes easier to collaborate and share the relevant documents in an accessible digitized format within in a very short period and with limited use of capital. Therefore, such techniques are very much less time consuming and cost-effective with respect to their maintenance and retrieval for future references.

- **Impact of Digital Technologies in Education:**

The integration of digital technologies in the field of higher education has several impacts upon the society and individual. These are as follows:

1. **Digital divide:** The term digital divide is a social phenomenon that poses a big threat to every spere of social life now-a-days. It is not a very recent phenomenon. According to various research studies, it has been started since the late 1980s, and at the beginning of 1990s. actually, digital divide defines the gap that exists between the haves and the have nots in terms of access to and efficient utilization of telecommunication and digitally advanced technologies or internet. Digital divide is being studied with respect of local, national, and global level where greater stress has been given in the context of education mainly to resolve the ongoing problem for closing the digital gaps that create imbalanced and improper access to information and communication technology. It is a problem basically caused due to disparities in the ability to use and access affordable information and communication technologies. Access to digital technologies is an essential pre-requisite condition for ensuring quality and equity as well as for fostering full participation in political, social, educational, and economic spheres. Digital divide can be properly explained in terms of time, infrastructural, economical, technological, and geographical factors since it happens between rural and urban areas, between the well-off and poor, between educated and less educated and between industrially advanced nations and others.

Banker et al. (2020) studied the digital divide that persists in higher education system in this digital era despite of the availability of digital technologies, internet etc., variation in utilization and access to digital information and technologies can still be observed due to various reasons in developing countries like India. Their study mainly focused on the role and responsibilities of the Departments of the Library and Information Science and their professionals to reduce the digital gaps that severely affected higher education system intensively. According to various literature studies, it has been noticed that from the educational perspective, digital divide can be categorized under five types-

a. Between educated and uneducated users of computer (Basically computer literate individuals can perform better in various tasks digitally compared to the uneducated users of computer).
b. Between digitally skilled and digitally unskilled users (since internet surfing needs adequate knowledge and appropriate training).
c. Accessibility and availability of digital information (users should poses necessary awareness and knowledge about the availability of digital information so that they can access, use and retrieve those resources and information as and when required).
d. Between digitally and technologically advance and poor (use of ICT, Internet etc generally demands huge costs for proper installation and effective utilization. Students belonging to lower income groups as such cannot afford these costs and hence face problems in access issues of these modern technologies.
e. Lingual Barrier (a vast range of information on the digital platform is in English which also put obstacle for many students whose primary language is regional one. Students with poor English language background face problems in using and retrieving information digitally.

Digital divide indicating the gap that exists between two groups where one representing proper access to and can utilize effectively digital technology and the other representing those

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who lack these access and utilization opportunities. Enabling public to access Internet by widening the opportunities to use digital technology and providing necessary technical skills may benefit one group to participate effectively in the digital economy.

2. **Regional imbalances and Economic disparity:** In the field of education, there persists severe regional imbalances and development because of prevailing economic disparity. Digital divide indicates discrepancies in various dimensions of the educational sphere due to several factors including accessibility, proper usage, availability of continuous service, necessary skill and knowledge about digital devices, awareness about digital technologies, social support system, linguistic hindrances, inadequate experiences (Dutta, 2018). All these factors are creating disproportionate development in education and society. Hence, the concept of digital divide may exist among rural and urban individuals, among students and teachers also. These differences in technological access creates digital division countrywide that generates many challenges for all the educational and administrative stakeholders to bridge the gap and ensure quality education for all.
3. **Instructional barrier:** The implementation of digital education would be successful at the classroom level if there exists sufficient digital tools and resources for course-content delivery. Therefore, the teachers are required to acquire those skills for the utilization of digital technologies and for managing the delivery mechanism using digital platforms. Moreover, the classrooms are required to be fully equipped with digital technologies that fosters students' learning by enabling them to access the desirable and relevant e-learning systems.
4. **Security concern:** One of the important negative aspects of using digital technologies is related to the issues and concerns of cybersecurity. Day by day, as the usage of digital technologies has been enhanced, there has also been an increased rate of cyber hacking and malware associated with the access, sharing and dissemination of information through digital devices. Hence, the higher education institutions must provide good network connectivity assuring with strong security measures to minimize the risks of cyber hacking and any damages.
5. **Problems regarding management of network and their proper monitoring:** While organizing digital education, the most common problems faced by the higher education institutions are the problems of data management through digital devices, issues related to confidentiality of information, filtering of digital content, issues of network connectivity services, threat of computer viruses and proper monitoring of any educational programme through digital technologies. Therefore, the higher education institutions must provide trained security professionals for ensuring secured and safe use of digital technologies in education while preventing the different technical issues, disruptions, and threats of cybersecurity effectively for the protection of various software programmes.
6. **Upgrading digital tools and equipment:** There has been always a lack of upgrading digital tools and equipments after installing any software programmes at different higher education institutions. Hence, this resulted into the problems of inefficiency and low productivity of work faced by the students and teachers while taking part in digital education. Hence, it is essential to investigate the matter of upgrading digital tools and technologies by the higher education institutions to reduce the operation costs of the existing systems and thereby improves the productivity, compatibility, and connectivity of the networking devices, digital devices, and storage facilities.
7. **Lack of technical support:** Apart from the problems of security measures, lack of necessary technical support hampers the academic performances of the students in digital educational programme. Hence, the educational stakeholders of the higher education institutions must provide adequate technical infrastructure, trained personnels for programme management and data handling, proper support to facilitate digital education as well as to solve the emerging issues of network connectivity, security, malware etc. through Electronic Document management System, Relational Database Management system, Local Area Networks, Web-based Search Engines.

CONCLUSION

Engaging the students with digital tools and resources may enable them to get proper and equal access to the learning materials effectively. Digitalization in education help the students by providing necessary learning content in accessible format as per their requirements. The higher educational institutions may bring positive reformatory changes in the field of education by introducing full-fledged digital education into the curriculum. Despite of having several shortcomings and disadvantages, digitalization may help both the teachers and the students to cope with the current educational problems and other situational aspects judiciously in a viable manner. Therefore, the higher education institutions (HEIs) may take affirmative initiatives to implement digital education successfully in the country.

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REFERENCES

1. *Alwidi, H. A., & Aldhafeeri, F. (2017). Teachers' readiness to implement digital curriculum in Kuwait Schools. Journal of Information Technology Education: Research, 16, 105-126.*
2. *Banker, V. P., & Vaja, B. L. (2020). Digital divide in higher education. An International Multidisciplinary Research E-Journal, 5(5), 1-8.*
3. *Cheok, M. L., & Wong, S. L. (2015). Predictors of e-learning and satisfaction in teaching and learning for school teachers: A literature review. International, Journal of Instruction, 8(1), 75-90.*
4. *Dhari, B., Aggarwal, L., & Aggarwal, R. (2020). On exploration and then establishing the interrelationships amongst the challenges in implementing digital divide in India. International Journal of Computer Applications, 176(34), 15-19.*
5. *Haleem, A., Javaid, M., Qadri, M., & Suman, R. (2022). Understanding the role of digital technologies in education: A review. Sustainable Operations and Computer, 3(4), 275-285.*
6. *Hess, S. (2014). Digital media and student learning: Impact of electronic books on motivation and achievement. New England Reading Association Journal, July.*
7. *Higgins, S., Xiao, Z., Katsipataki, M. (2012). The impact of digital technology on learning: A summary for the education endowment foundation.*
8. *Kaur, M. P. (2016). Teachers education in India: Inclusion of ICT in teachers education. International Education and Research Journal, 2(2), 62-63.*
9. *Khan, S., & Mohakud, L. L. (2020). Covid-19 and digital divide in higher education: Exploring the Indian scenario. The Novel Covid-19: The Human Rights, 353-372.*
10. *Lea, M. R., & Jones, S. (2011). Digital literacies in higher education: exploring textual and technological practice. Studies in Higher Education, 36(4), 377-393.*
11. *Masters, J., Kramer, R. M. D., O'Dwyer, L., & Dash, S. (2010). The effects of inline professional development on fourth grade English language art teachers' knowledge and instructional practices. Journal of Educational Computing Research, 43(3), 355-375.*
12. *Pawar, M. A. (2021). Role of digital literacy among teachers and students in 21st century India. Educational Resurgence Journal, 3(6), 93-101.*
13. *Srivastava, K., & Dey, S. (2018). Role of digital technology in teaching-learning process. IOSR Journal of Humanities and Social Science, 23(1), 74-79.*
14. *Stork, M. G. (2017). Implementing a digital learning initiative: a case study in K-12 classroom. Journal of Formative Design in Learning.*
15. *Tarman, B. (2003). The digital divide in education. International Conference for the History in Education, ISCHE XXV, Sao Palo, Brazil, 1-28.*
16. *Zheng, B., Warschauer, M., Hwang, J. K., & Collins, P. (2014). Laptop use, interactive science software, and science learning among at-risk students. Journal of Science Education and Technology, 23(4), 591-603.*