

Digital Literacy: Changes after COVID-19

Prerna Soni¹, Pooja Tripathi^{2*}, Shirin Alavi³

¹Management School, Delhi Metropolitan Education,Noida, Uttar Pradesh,India ²Jaypee Business School, Jaypee, Institute of Information and Technology, Noida, Uttar Pradesh,India ³Department for Humanities and Social Sciences, Jaypee, Institute of Information and Technology, Noida, Uttar Pradesh,India

Abstract

Digital literacy refers to the ability to use digital technology to search, assess, use, and create information. Digital literacy is required in the digital workplace to improve job satisfaction, engagement and expand digital competency. The present study will explore insight into digital literacy concerning the workplace, the role of digital literacy in technology adoption, and the impact of COVID 19 on digital literacy. The study will be exploratory and will undertake a literature survey. Papers from recognized journals will be selected to bring results. The ability to use digital technology will help in getting experiences in a cost-effective manner and a flexible learning environment for the employees. Hence, this study will help in getting more clarification towards the given objectives.

ARTICLE INFO

*Correspondence:

Pooja Tripathi tripathipooja019@ gmail.com Jaypee Business School, JIIT, Noida

Published:

20 January, 2022

Keywords:

COVID 19, Digital Literacy, Digital Work Place, Technology Adoption.

How to Cite:

Sonil, P., Tripathi, P., & Alavi, S. (2021) Digital Literacy: Changes after COVID-19. DME Journal of Management, 2(1), 14-20. doi: 10.53361/dmejm. v2i01.2

INTRODUCTION

iteracy has always meant reading with meaning and comprehension, rather than merely being able to read. It is the most basic form of cognition. In the same way, digital literacy pushes the concept of what it means to be literate. When utilizing a networked media, it is cognition of what is shown on the computer screen." (2019, RJ Baron). It entails many complex cognitive, emotional, and sociological skills that users require to function effectively in digital environments, and because it allows employees to use digital resources to manage their duties and collaborate regardless of time or location, the concept of digital work may assist in providing more autonomy and flexibility. (2019 - Elsevier). Digital literacy is a wide term that encompasses a variety of skills and literacies, including information assessment and knowledge collection (Computers & Education- Elsevier). However, establishing such technologies in place does not ensure their success; people must adapt and utilise them as intended in order to reap the advantages. The workforce's digital literacy may have a role in this result. At the same time, a rising corpus of research argues that workers' digital abilities are critical for both individuals and organisations to make the most of the digital workplace, despite a lack of empirical evidence to support this claim. The digital workplace is a cross-industry concept that has been defined as "the aggregated set of technology services that enable

DME Journal of Management e-ISSN: 2582-9432 © Delhi Metropolitan Education, 2021. **Open Access** This article is licensed under a Creative Commons Attribution 4.0 International License, which permits use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons licence, and indicate if changes were made. The images or other third party material in this article are included in the article's Creative Commons licence, unless indicated otherwise in a credit line to the material. If material is not included in the article's Creative Commons licence and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder. To view a copy of this licence, visit https://creativecommons.org/licenses/by-nc-sa/4.0/.

us to do our work, including intranets, unified communication, microblogging, HR systems, email, mobile applications, collaborative spaces, supply chain, and customer relationship management systems," according to one definition. (2018 E Marsh).

Adult learners, often known as andragogy, are self-directed learners who work in companies. Adult learners only seek out and study new knowledge or resources that are relevant to their job and interests in order to attain their objectives. Adult learners, on the other hand, find learning something new to be extremely difficult. As a result, knowledge management is an important medium for adult learners to be stimulated. Employees in new jobs can use Knowledge Management to study, share, and retrieve information from an organization's website while keeping expert knowledge. To address problems or grow work in the organisation, each role requires suitable expertise. Employees with expertise and experience are extremely useful (A Silamut, S Petsangsri -2020 - Springer). Failure to effectively use information, as well as a failure to leverage contemporary resources and technology that make ordinary work practises simpler, can sabotage an organization's capacity to achieve its objectives, wasting time, money, effort, and energy. Modern organisations should embrace successful information management efforts as an organisational strategy, offering relevant information to the correct people and through the appropriate medium, according to the basics of Information and Knowledge Management (IKM) literature (Master's Thesis_Bimesh).

Employees' digital literacy (Stordy, 2015) refers to a person's or a social group's skills, knowledge, and abilities used when interacting with digital technologies, which goes beyond traditional literacy perceptions that limit literacy to the capacity to read, write, and utilise written materials in a variety of situations. (Cetindamar kozanoglu 2020 (Kozanoglu, B Abedin - Journal of Enterprise Information,2020). The capacity of digital technology to change lives, economies, cultures, and societies is universally accepted (arts2015, K Arts, R van der Wal, WM Adams - Ambio, 2015 – Springer). In the creation of new ventures, technology is permanently present. New technologies have an impact on every stage of the entrepreneurship process, from identifying

new business prospects through technologyenabled systematic search methods to lowering manufacturing costs using technology, and integrating technology-enhanced bookkeeping and billing systems.(X Neumeyer, SC Santos, 2020). The Internet may be used as a communication channel in some situations, allowing for certain sorts of digitally mediated exchanges and digital communication. Communication may take numerous forms, such as two friends texting or sharing photos on a social networking site like Snapchat. In other circumstances, the Internet serves as a more generic technology, allowing for the digitization of previously non-digital media experiences. A user utilising a digital video streaming service such as Netflix or Hulu to watch a TV show or an audio streaming service such as Pandora or Spotify to listen to music is employing digital technology as a medium. (RJ Baron - The international encyclopedia of media literacy, 2019). Workplace circumstances are changing as a result of technological advancements, which have increased physical, psychological, and environmental demands. Furthermore, major changes have happened in job circumstances (e.g., contractual and social terms of work), as well as in industrial relations (e.g., how employers and workers manage their relationships and resolve problems). (A Cijan, L Jenič, A Lamovše - Dynamic, 2019). Digital technology may help individuals enhance their quality of life in a variety of ways and is seen as a necessary tool for learning. In 21st-century education, information literacy (IL), media literacy (ML), and information communication and technology literacy (ICTL) have all become required skills. These abilities, which include life and career skills, learning and innovation skills, and increasing access to digital technologies, can help employees improve their ability (A Silamut, S Petsangsri -2020 – Springer).

COVID-19 disclosed a number of defects and obstacles that have been in the industry for a long time, such as how to carry out daily duties from the perspective of traditional to digital interactions. Under the new operating strategy, companies may now decide which roles require face-to-face communication and to what amount. (delucasancillo2020, A de Lucas Ancilla, MT del Val Núñez - Economic Research ..., 2021 - Taylor & Francis). The current study analyses if digital literacy about digital technology adoption is required for all workplaces in order for startups and organisations to survive. The findings have the potential to expand existing knowledge of technology acceptability via digital literacy in the workplaces, as well as raise the present digital literacy rate and ensure its continuation; we have undertaken the study work in a methodical manner.

LITERATURE REVIEW

Understanding computers as a new communication medium was a major emphasis of previous digital literacy notions. Gilster (1997), In one of the earliest articulations of the concept, for example, defined digital literacy as "the capacity to interpret and use information in varied formats from a wide range of sources when it is supplied via computers." Literacy has always meant being able to read with meaning and comprehension, not just being able to read. It is the most fundamental type of cognition. Digital literacy stretches the definition of what it means to be literate in the same manner. When utilising a networked media, it is the comprehension of what is displayed on a computer screen. Gurak (1999) used the term "cyberliteracy" to define an electronic literate that incorporates features of both print and spoken word, and does so in ways that change the way we read, communicate, think, and interact with others. (RJ Baron - The international encyclopedia of media literacy, 2019). The notion of the digital workplace is that firms should utilise digital transformation (DX) to connect over internet, personnel, and business processes in order to increase the efficiency and achieve the organisational goals. Organizations and the creation of interventions to assist workers optimise digital tools at work may benefit from a better knowledge of the link between digital literacy and digital workplace acceptability. (E Marsh -on Digital Transformation, Organizational Change, and, 2021). Technical, cognitive, and societal abilities are the three components of digital literacy. These are used to solve difficulties in a digital society's environment. (S Kaeophanuek, J Na-Songkhla - International Journal of, 2018).

The process of developing, sharing, utilising, and managing an organization's information and resources is known as knowledge management (KM). Adult learners have an essential part in self-directed learning, which involves planning, establishing goals, accessing knowledge or resources, and evaluating the learning process. The knowledge and abilities needed to work with information technology and networks, such as obtaining, managing, sharing, and producing data and knowledge, are referred to as DLA. Learners rely on KM for information gathering. In order to access these materials, students must have a basic understanding of digital literacy (DLA). We used KM to create an SDL model to improve DLA: The model was developed by merging relevant efforts and having it confirmed by five experts from different fields. (A Silamut, S Petsangsri - Education and Information Technologies, 2020 - Springer).

The use of new digital technology in everyday organisational activity is referred to as digital transformation. (Warner and W€ager, 2019). Due to the particular nature of digital technology, managers and decision-makers face a number of challenges throughout digital transformations. The majority of businesses make use of digital technologies.

People must embrace and use benefits as intended in order to reap benefits (Emarsh-2018). Technology adoption (and adaption) is crucial for entrepreneurial organisations to enhance their company operations and compete with bigger, less resource-constrained firms. Customers' expectations, as well as external demands from competitors, suppliers, regulators, and others, might all be better satisfied with technology. It has the potential to enable supply-chain integration, manufacturing and operational cost savings, the creation of new value, and business expansion. (X Neumeyer, SC Santos-2020). Furthermore, environmentalists are typically hopeful about Information Age technologies because they offer more data, quicker processing, and easier access to information, and digital transformation is the continuing process of adopting new digital technology into everyday organisational life.(Warner and W€ager, 2019). Due to the particular nature of digital technology, managers and decisionmakers face a number of challenges throughout



digital transformations. Digital transformation is the application of new digital technologies to routine business operations. (Warner and W€ager, 2019). Digital transitions bring several difficulties to managers and decision-makers due to the unique nature of digital technology, including connection, new communication channels, fascinating visual representations, and empowering decision-making support tools. (K Arts, R van der Wal, WM Adams -Ambio, 2015 – Springer).

RESEARCH METHODOLOGY

A qualitative study is being adopted, and a literature survey is conducted from adequate index papers and is based on literature. The primary goal of this research is to analyze digital literacy in the workplace. It's the role in technology adoption, and the Impact of COVID-19 on digital literacy. By completing a thorough literature review of around 30 publications, we used an evidence-based practise for information systems approach and we also took ideas from our college's professional experts. Only specific and renowned journals were selected for the study for more accuracy and clarification. Keywords used are Digital literacy, Digital workplace, COVID Impact, Technology adoption, Knowledge Management, and Digital Technology. This study uses the affordance theory to create a new framework for thinking about the role of digital literacy in technology adoption in an organization. In the Introduction section, the study firstly accesses the meaning and the insight of digital literacy, then the meaning of digital technology and its adaption in the workplace, and then the impact of covid on digital literacy and the online and advanced methods and technologies adopted during and after it impacts. The current paper explains all the solutions for the issues being faced by the employees while adapting digital technologies, especially after the COVID impact. Modern organisations are advised to implement effective information management initiatives as an organisational strategy, providing the correct information to the right people, at the right time, using the appropriate medium, based on the fundamentals of Information and Knowledge Management (IKM) literature. The objectives mentioned above are to understand digital literacy in detail, technology adoption in workplaces, and the impact on digital literacy due to Covid. This research will create a clear understanding among the readers about the given study. This research will provide well-founded solutions to all the issues being faced at the workplace.

RESULTS AND ANALYSIS

Objective 1: To have an insight into Digital Literacy Concerning Workplace

The design of learning environments will always change in response to changes in educational and business goals. As a result, In the late 1800s, learning environments for the digital workplace were vastly different from those in the twenty-first century. As a result, society is on the verge of shifting from a commodity-based economy to one that emphasises information and highly trained people resources. Employees must be adaptive in their skill acquisition at work and eager to change jobs. Information and communication technology (ICT) is ubiquitous in the workplace, and ICT-skilled workers are in high demand. (ifenthaler2018, - Springer, E van Laar, AJAM van Deursen, JAGM van Dijk - Sage, 2020). As a result, Digital Workplace Learning seeks to shed light on how digital technology and digital learning might assist in bridging the formal and informal learning differences in the workplace. (ifenthaler2018, - Springer).

Objective 2: Role of Digital Literacy in Technology Adoption

With the growing use of technology, it is evident that the skills necessary are not just how to operate computers or obtain information, but also how to solve issues and generate value with the assistance of others via information networks.

The Internet and the Globe Wide Web have ushered in a new era in which people may freely communicate information from anywhere in the world at any time. Information networks have become an indispensible aspect of our everyday lives as well as the global economy. In such an updated world of information, digital literacy is



a critical and distinct skill. Digital literacy is the cornerstone for lifelong learning. It cuts across all academic fields, learning situations, and degrees of schooling. It enables students to absorb concepts, extend their horizons, become more self-directed, and take control of their education. A digitally knowledgeable person can do the following:

- Determine the amount of data you'll need to get the information you need quickly and effectively.
- Critically assess the information and its sources.
- Include specific facts in one's knowledge base.
- Make good use of knowledge to achieve a specified goal.

Recognize the economic, legal, and social challenges that surround information use, as well as how to obtain and use information ethically and lawfully. (G Alazie, R Devi, S Ebaby -2020).

Objective 3: Impact of COVID on Digital Literacy

According to McKinsey (2020), the COVID-19 epidemic ushered in new ways of doing business, pushing firms to change their operations as well as the role of offices in delivering secure, rewarding, and happy work. Furthermore, COVID-19 posed unanticipated challenges, which many businesses faced around the world but they still managed throughout with the crises by managing the whole in advance through creating strategies and by implementing new working arrangements to save employees in the case of an unforeseen catastrophe. (A de Lucas Ancilla, MT del Val Núñez, 2021 - Taylor & Francis).

Limitations of the Study

- Due to the lack of time, just a theoretical investigation was undertaken; no empirical study was conducted to conduct research.
- Only a limited amount of papers were studied for this purpose.
- The research paper is mainly concerned with our own country, i.e., India.

Future scope of the Study

In the future, empirical research can be carried out to obtain more detailed and in-depth knowledge, i.e., a thorough examination of the data about the actual figure.

More amount of paper might be used for better research.

Benefits to Academicians and Managers

- Academicians will now have Transparent Knowledge available to them.
- The material in this study paper will assist Academicians in proving themselves as a valuable asset to an organization.
- The research will assist Managers in learning more about digital literacy.
- If Managers understand the relevance of these characteristics, it will aid in the growth of the organization.

CONCLUSION

In Simple words, the ability to comprehend and use technology is referred to as Digital Literacy. You can put your digital literacy skills to good use by accessing, consuming, and creating content on the internet. Understanding digital literacy helps you to use technology safely while avoiding the hazards that come with it. Due to a lack of time, just a theoretical investigation was undertaken; no empirical study was conducted to conduct research, and only a limited number of papers were studied for the purpose. The research paper is mainly concerned with our own country i.e., India. Academicians will now have transparent Knowledge available to them, and the material in this study paper will assist them in proving themselves as a valuable asset to an organization. This research will also assist managers in learning more about digital literacy, and If Managers understand the relevance of these characteristics, it will aid in the organization's growth. The study's most important finding is that digital literacy plays a crucial role before the more general determinants of technology adoption and in organizational interventions intended to encourage digital workplace adoption. Digital literacy, Digital workplace, COVID Impact, Technology adoption, Knowledge Management, and Digital Technology are the KEYWORDS used in this Research Paper.



REFERENCES

- (n.d.). Horizon Research Publishing. https://www.hrpub.org/ journals/article_info.php?aid=9799
- Academic libraries in COVID-19: A renewed mission for digital literacy. (n.d.). OpenAIR@RGU Home. https://rgu-repository.worktribe.com/output/977774/academic-libraries-in-covid-19-a-renewed-mission-for-digital-literacy
- COVID-19 pandemic and education. (2020, September 1). ResearchGate. https://www.researchgate.net/publication/349110273_Covid-19_Pandemic_and_Education
- Digital technology and the conservation of nature. (2015, October 27). SpringerLink. https://link.springer.com/ article/10.1007/s13280-015-0705-1
- Digital literacy. (2019, May 9). Wiley Online Library. https:// onlinelibrary.wiley.com/doi/abs/10.1002/9781118978238. iem10053
- Digital citizenship during a global pandemic: Moving beyond digital literacy. (n.d.). ResearchGate. https://www. researchgate.net/publication/343044636_Digital_Citizenship_During_a_Global_Pandemic_Moving_ Beyond_Digital_Literacy
- Digital workplace learning. (n.d.). Springer. https://link. springer.com/book/10.1007/978-3-319-46215-8
- Digital technology use during COVID-19 pandemic: A rapid review. (2020, December 28). Wiley Online Library. https://onlinelibrary.wiley.com/doi/full/10.1002/hbe2.242
- Dittes, Richter, S. &., Richter, S. &., Smolnik, A. &., & Stefan. (2019, February 2). *Toward the workplace of the future: How organizations can facilitate digital work*. Economics and Finance Research | IDEAS/RePEc. https://ideas. repec.org/a/eee/bushor/v62y2019i5p649-661.html
- Determinants of 21st-century skills and 21st-century digital skills for workers: A systematic literature review - Ester van Laar, Alexander J. A. M. van Deursen, Jan A. G. M. van Dijk, Jos de Haan, 2020. (2020, January 24). SAGE Journals. https://journals.sagepub.com/doi/ full/10.1177/2158244019900176
- Determinants of 21st-century skills and 21st-century digital skills for workers: A systematic literature review - Ester van Laar, Alexander J. A. M. van Deursen, Jan A. G. M. van Dijk, Jos de Haan, 2020. (2020, January 24). SAGE Journals. https://journals.sagepub.com/doi/ full/10.1177/2158244019900176
- Do digital literacies matter in employee engagement in digitalised workplace? (2021, March 25). Discover Journals, Books & Case Studies | Emerald Insight. https://www. emerald.com/insight/content/doi/10.1108/JABS-08-2020-0318/full/html?skipTracking=true
- Does digital literacy influence students' online risk? Evidence from COVID-19. (n.d.). ScienceDirect.com | Science, health and medical journals, full text articles and books. https://www.sciencedirect.com/science/article/pii/ S2405844021015097
- Education and information technologies. (2022, January 25). Springer. https://www.springer.com/journal/10639

- *Ej1276130.* (n.d.). ERIC Education Resources Information Center. https://eric.ed.gov/?id=EJ1276130
- How universities entrust digital literacy to improve student learning outcomes during the COVID-19 disruption. (n.d.). ResearchGate. https://www.researchgate.net/ publication/353862378_How_Universities_Entrust_ Digital_Literacy_to_Improve_Student_Learning_Outcomes_During_the_COVID-19_Disruption
- Investigating the elicitation of employees' support towards digital workplace transformation. (2020, March 16). Taylor & Francis. https://www.tandfonline.com/doi/abs /10.1080/0144929X.2020.1742382
- Overcoming barriers to technology adoption when fostering entrepreneurship among the poor: The role of technology and digital literacy. (n.d.). Rowan University. https:// www.researchwithrowan.com/en/publications/overcoming-barriers-to-technology-adoption-when-fostering-entrepr
- OPUS at UTS: Hybrid organizational forms in public sector's digital transformation: A technology enactment approach. (2021, October 4). OPUS at UTS - Open Publications of UTS Scholars. https://opus.lib.uts.edu.au/ handle/10453/150830
- Personal dynamic memories are necessary to deal with meaning and understanding in human-centric AI. (n.d.). Semantic Scholar | AI-Powered Research Tool. https://www.semanticscholar.org/paper/Personal-dynamic-memories-are-necessary-to-deal-and-Steels/ 6748fa68d4cf6e8edfd2e4e95c4cce76263a6672
- (PDF) Explore the impact of digital literacy for lifelong learning. (2019, August 10). ResearchGate. https://www. researchgate.net/publication/335442732_EXPLORE_ THE_IMPACT_OF_DIGITAL_LITERACY_FOR_LIFE-LONG_LEARNING
- (PDF) How digitalization changes the workplace. (n.d.). ResearchGate. https://www.researchgate.net/publication/333222889_HOW_DIGITALIZATION_CHANGES_ THE_WORKPLACE
- (PDF) A learning process model to enhance digital literacy using critical inquiry through digital storytelling (CIDST). (2019, February 14). ResearchGate. https://www. researchgate.net/publication/331108524_A_Learning_ Process_Model_to_Enhance_Digital_Literacy_using_ Critical_Inquiry_through_Digital_Storytelling_CIDST
- (PDF) Towards an inclusive digital literacy framework for digital India. (2019, July 2). ResearchGate. https://www. researchgate.net/publication/326141291_Towards_an_ inclusive_digital_literacy_framework_for_digital_India
- (PDF) How to enhance digital literacy skills among information sciences students. (2018, April 1). ResearchGate. https://www.researchgate.net/publication/321170368_ How_to_Enhance_Digital_Literacy_Skills_among_ Information_Sciences_Students
- Report on digital literacy in academic meetings during the 2020 COVID-19 lockdown. (2020, September 7). MDPI. https://www.mdpi.com/2078-1547/11/2/20

- S, M. J., & Serpa, S. (n.d.). COVID-19 and the Promotion of Digital Competences in Education. pdfs.semanticscholar.org. https://pdfs.semanticscholar.org/5017/4fb-20c9d353ec81594b2e01b71a90601ab3c.pdf
- Toward the workplace of the future: How organizations can facilitate digital work. (n.d.). ScienceDirect.com | Science, health and medical journals, full text articles and books. https://www.sciencedirect.com/science/ article/abs/pii/S0007681319300746
- Teacher digital literacy: The indisputable challenge after COVID-19. (2021, February 8). ResearchGate. https:// www.researchgate.net/publication/349157889_ Teacher_Digital_Literacy_The_Indisputable_Challenge_after_COVID-19
- Tzifopoulos, M. (n.d.). In the shadow of Coronavirus: Distance education and digital literacy skills in Greece. ijsstr.com. http://www.ijsstr.com/data/frontImages/1._April_2020. pdf
- The influence of the COVID-19 pandemic on the digital transformation of work | International Journal of sociology and social Policy;2020. | Scopus. (n.d.). https://pesquisa. bvsalud.org/global-literature-on-novel-coronavirus-2019-ncov/resource/en/covidwho-857767
- Understanding the role of employees in digital transformation: Conceptualization of digital literacy of employees

as a multi-dimensional organizational affordance. (n.d.). Macquarie University. https://researchers.mq.edu. au/en/publications/understanding-the-role-of-employees-in-digital-transformation-con

- University libraries response to COVID-19 pandemic: A developing country perspective | Journal of academic librarianship; 47(1), 2021. | Scopus. (n.d.). https://pesquisa. bvsalud.org/global-literature-on-novel-coronavirus-2019-ncov/resource/en/covidwho-935346
- Understanding the effect of E-IEarning on individual performance: The role of digital literacy. (n.d.). ScienceDirect. com | Science, health and medical journals, full text articles and books. https://www.sciencedirect.com/ science/article/abs/pii/S0360131514002450
- Understanding the effect of digital literacy on employees' digital workplace continuance intentions and individual performance. (n.d.). Semantic Scholar | Al-Powered Research Tool. https://www.semanticscholar. org/paper/Understanding-the-Effect-of-Digital-Literacy-on-and-Marsh/03e073e65af0bb54291a7f932bc0f955f7948894
- Workplace change within the COVID-19 context: A grounded theory approach. (2020, December 23). Taylor & Francis. https://www.tandfonline.com/doi/full/10.1080/13316 77X.2020.1862689

