

CRITICALLY ANALYSING THE ROLE OF DIGITAL PROFESSIONALISM IN THE INDIAN PRE-SERVICE TEACHER PROGRAMME

Dr. Anjali Shokeen¹ and Ms. Banipreet Kaur²

Abstract

Digital revolutions have drastically impacted our daily lives, including the field of education. Technology has transformed the role of teachers from authoritarian figures of knowledge to facilitators of knowledge and has changed classroom instruction, pedagogical styles, and environments. The concept of digital professionalism has emerged in the field of education, referring to the appropriate behaviour while using digital platforms. This research article critically examines the role of digital professionalism in Indian pre-service teacher training programmes and identifies the crucial elements that should be included in teacher education curricula to make sure that new teachers are equipped to use technology in an ethical and productive manner. Various studies have highlighted the importance of digital professionalism in teacher education and identified access to technology, attitude, and self-efficacy as primary components that impact pre-service teachers' digital competence. The role of teacher education institutes is crucial in promoting digital professionalism, as they should teach their students about digital professionalism and provide guidance on how to use digital tools effectively, safely, and responsibly. By promoting digital professionalism, pre-service teachers can become responsible digital citizens and prepare for the demands of a rapidly changing digital world.

Keywords: Digital, Professionalism, Teacher Education, Online learning.

INTRODUCTION

The technology that is all around us during the fourth industrial revolution has had a massive effect on how we live our daily lives. Technology has also made a significant impact on the field of education by transforming the role of teachers from authoritarian figures of knowledge to the facilitators of knowledge. It has changed classroom instruction, pedagogical styles, and classroom environments, among other things. These changes have impacted the learning styles of students worldwide. Numerous studies have been undertaken to understand the crucial role

¹ Assistant Professor, University School of Education, Guru Gobind Singh Indraprastha University

² Research Scholar, University School of Education, Guru Gobind Singh Indraprastha University

of technology in transforming the educational setup [(Sugiyanto et al., 2021); (Minea-Pic, 2020); (Singh et al., 2022)]. The English word "profession" originates from the Latin word "profesus," which means to acknowledge or recognise specialists and therefore are qualified in an area of work (Hartoyo et al., 2021). The field of teacher education provides ample opportunities to train and develop a critical mindset towards technology or digitalization among upcoming teachers. However, the usage of technology in teacher education institutes is limited to sharing PowerPoint presentations, writing emails, and searching for desired content on the internet [(Tour, E., 2015); (Maimun & Hakim, 2021)]. Various key terms such as digital literacy, digital professionalism and e-professionalism have emerged in the field of education which broadly refers to the understanding, development and knowledge of the appropriate behaviour while using digital platforms [Mather, C. (2020)]. The University of Edinburgh, (2021) defines e-professionalism as a collection of necessary abilities, attitudes, and behaviours that people need to be able to use digital mediums with ease in professional setups.

This research article critically examines the role of digital professionalism in Indian pre-service teacher training programmes and identifies the crucial elements that should be included in teacher education curricula to make sure that new teachers are equipped to use technology in an ethical and productive manner.

REVIEWS RELATED TO DIGITAL PROFESSIONALISM

O'Connor et al., (2021) conducted a study in the sector of healthcare and concluded that the time teachers and trainers spent creating curriculum, organising lessons, and conducting instruction using digital tools to assist students and healthcare professionals seemed to have an effect on how well digital professionalism education was created and delivered. **Shokeen & Kaur, (2022)** identified in their review paper that access to technology, attitude and self-efficacy are the primary components which impacts the pre-service teachers' digital competence. Other important factors are the necessary knowledge and abilities, practical experience with technology, and attitude. They suggested that instructional courses at training institutions should be upgraded further and an emphasis should be given on technology-integrated teacher preparation in order to aid pre-service teachers in becoming accustomed to digital tools. **Kim et al., (2021)** analysed the digital stories created by the students enrolled in teacher education programme. It was revealed that these digital stories skills encourage teachers to reflect and grow as professionals. **María Gómez-Trigueros, (2023)** highlighted that there is very little professional ethical knowledge found in the aspiring teachers in the twenty-first century, a post-pandemic era, and it becomes very crucial to address this knowledge. Another

finding is the necessity of incorporating the ethical element into the TPACK model in order to ensure proper and moral usage of digital tools in educational settings. **Syafryadin et al., (2020)** in their paper concluded there was need for additional training as English teachers still had issues for utilising technologies. In the field of education, digital professionalism is critical for teachers and educators who use digital technologies to support student learning. Teachers are expected to set an example for digital professionalism by using technology in an ethical and responsible way, safeguarding their pupils' privacy, and avoiding any unethical technology use. (Karlj, 2015). **Purwantiningsih & Suharso, (2019)** discovered in their study that the improvement and growth of professional teachers has been a key factor in the advancement of education in several nations, including Japan, China, Korea, and India, which later served as a tool to address the challenges of the country. The role of teacher education institutes becomes very crucial in this. As they should teach their students about digital professionalism and provide guidance on how to use digital tools effectively, safely, and responsibly in pre-service teacher programmes (Sugiyanto et al., 2021). By promoting digital professionalism, teachers can help their students become responsible digital citizens and prepare them for the demands of a rapidly changing digital world.

NEED FOR ACCELERATING DIGITAL PROFESSIONALISM AMONG PRE-SERVICE TEACHERS

Accelerating digital professionalism among pre-service teachers is crucial because it can help to ensure that they are adequately prepared to use digital technologies effectively in their future teaching careers (Kimmons, 2020). Because technology is advancing so quickly and because there are more and more students using digital tools in the classroom, it is crucial for pre-service teachers to have the necessary skills and knowledge to use these tools effectively in the classroom (Purwantiningsih & Suharso, 2019). Pre-service teachers can learn how to use digital technologies responsibly, respect others' privacy and intellectual property rights, and effectively communicate using digital media by placing an emphasis on digital professionalism in teacher education programmes. (Kimmons, 2020; Minea-Pic, 2020)). They can also develop the skills needed to use digital resources to enhance their teaching practices and support student learning. Additionally, promoting digital professionalism among pre-service teachers can help to address some of the challenges associated with the use of technology in education, such as cyberbullying, plagiarism, and inappropriate use of social media (Kimmons, 2020; Maimun & Hakim, 2021). Pre-service teachers who are trained in digital professionalism can help to create

a safe and respectful learning environment for their students and promote responsible digital citizenship (Kimmons, 2020; María Gómez-Trigueros, 2023). Overall, accelerating digital professionalism among pre-service teachers is essential for preparing them to use digital technologies effectively and responsibly in their future teaching careers, while also promoting a safe and positive learning environment for their students.

INITIATIVES BY GOVERNMENT OF INDIA TO PROMOTE DIGITAL PROFESSIONALISM AMONG TEACHERS

The government of India has taken several initiatives under Digital India Scheme to provide digital professionalism among teachers across the country such as the launch of national platform DIKSHA for teachers to access digital content and teaching resources (CIET, 2021; Kundu & Bej, 2021)). The platform offers a range of digital resources, including lesson plans, assessment materials, and training courses; SWAYAM as a Massive Open Online Course (MOOC) Platform to offer various courses by giving anytime, anywhere accessibility to such courses; National Assessment Centre; Parakh; National Testing Agency for regulating e-assessments; development of virtual labs, e-repositories for strengthening digital infrastructure; development of Shodhganga and Shodhgangotri platforms for enhancing research and development etc (Kundu & Bej, 2021).

With the introduction of National Education Policy 2020, the more emphasis has been given on the introduction of disruptive technologies in education sector such as Artificial Intelligence, Robotics, 3D stimulations, Augmented and Virtual Reality tools etc (CIET, 2021). The policy also highlights the development of National Educational Technology Forum (NETF), a self-governing body to discuss, plan, and oversee technology-led education at all levels, from elementary school to university (Kundu & Bej, 2021). Under NEFT, e-courses will be created initially in eight regional languages. These initiatives by the Government of India aim to promote digital professionalism among teachers, enabling them to leverage technology to enhance their teaching practices and improve student learning outcomes.

STRATEGIES FOR DEVELOPING DIGITAL PROFESSIONALISM IN PRE-SERVICE TEACHERS

The area of Digital professionalism has a great potential to equip our future teachers with key skills/competencies which will help them to align their professional teaching goals with the digital resources (Kimmons, 2020). Designing teacher education programs to promote digital

professionalism demands a thorough strategy that considers the needs of future teachers. This includes:

- **Integrating Digital Citizenship into the Curriculum:** Teacher education programmes should integrate digital citizenship concepts and skills into the curriculum (Howard et al., 2021). This can include lessons on online safety, privacy, digital ethics, and responsible use of technology.
- **Provide Hands-On Training:** Teacher education programmes should provide pre-service teachers with hands-on training on how to use digital tools and technologies effectively and responsibly (Howard et al., 2021). This can include training on how to use learning management systems, digital assessment tools, and multimedia resources (Yakovleva, 2022).
- **Encourage Collaboration and Networking:** Teacher education programmes should encourage collaboration and networking among pre-service and in-service teachers. This can include online forums, social media groups, and professional learning communities that provide opportunities for teachers to share ideas, resources, and best practices (Sugiyanto et al., 2021).
- **Incorporation of Digital Pedagogy into Teaching Practice:** Teacher education programmes should incorporate digital pedagogy into teaching practice (Yakovleva, 2022). This can include providing pre-service teachers with opportunities to design and implement technology-enhanced lessons (Howard et al., 2021), as well as in-service teachers with opportunities to enhance their existing teaching practices with technology.
- **Provisions for Ongoing Professional Development:** Teacher education programmes should provide ongoing professional development opportunities for in-service teachers to keep them up-to-date with the latest trends and developments in educational technology (Howard et al., 2021). This can include online courses, webinars, and conferences.
- **Promotion of Reflection and Evaluation:** Teacher education programmes should promote reflection and evaluation of digital pedagogy practices (Yakovleva, 2022). This can include self-reflection activities, peer feedback, and evaluation tools (Howard et al., 2021) that assess the impact of technology integration on student learning outcomes.

CHALLENGES FOR DEVELOPING DIGITAL PROFESSIONALISM IN PRE-SERVICE TEACHER PROGRAMME

Developing digital professionalism in pre-service teacher programmes can be challenging due to several factors. Here are some of the challenges that need to be addressed:

- **Limited Awareness:** Many pre-service teachers may not be aware of the importance of digital professionalism or may lack the necessary knowledge and skills to use technology responsibly.
- **Resistance to Change:** Some pre-service teachers may be resistant to integrating technology into their teaching practice, or they may lack the confidence to do so.
- **Rapid Technological Change:** It can be difficult for both pre-service and in-service teachers to keep up with the rapidly changing technical landscape, making it challenging to stay current with the newest trends and advancements.
- **Limited Access to Technology:** Several prospective teachers might not have access to the tools and resources they need to improve their digital professionalism (Ravi, 2020).
- **Lack of Professional Development Opportunities:** Pre-service teachers may not have access to professional development opportunities that focus on developing their digital professionalism skills (Hartoyo et al., 2021).
- **Limited Support:** It is possible that pre-service teachers lack access to the resources and support networks they will need to advance their digital professionalism skills.
- **Privacy and Security Concerns:** Pre-service teachers need to be aware of these concerns and know how to handle them because the use of technology in the classroom generates privacy and security questions.

CONCLUSION

In conclusion, integrating digital tools and techniques into teacher education programmes is critical to preparing pre-service teachers for the demands of the 21st-century classroom. By doing so, we can ensure that our teachers are equipped with the knowledge, skills, and competencies necessary to provide high-quality education for all students. This can be achieved by carefully analysing the curriculum frameworks of different countries and adapting such frameworks in Indian context. The stakeholders, policymakers and researchers should collaborate with each other and try to suggest various ways in which technology can be adapted in such professional courses. Finally, it is important to recognize that technology is not a panacea for all educational challenges. It is just one tool in a teacher's toolkit. Therefore, teacher education programmes should encourage pre-service teachers to use technology judiciously and purposefully, with a clear understanding of its strengths and limitations.

REFERENCES

CIET. (2021). Technology Use and Integration & Online and Digital Education: Ensuring

- Equitable Use of Technology National Education Policy (NEP) -2020. In <https://www.education.gov.in/shikshakparv/>.
https://www.education.gov.in/shikshakparv/docs/NEP_2020_CIET_Behera.pdf
- Hartoyo, J., Ahmad, S., & Fitriani, Y. (2021). The Challenges of Implementation Of Professional Teachers Competency In The Digital Era. *Jurnal Pendidikan Tambusai*, 5(2).
- Howard, S. K., Tondeur, J., Ma, J., & Yang, J. (2021). What to teach? Strategies for developing digital competency in preservice teacher training. *Computers & Education*, 165, 104149. <https://doi.org/10.1016/j.compedu.2021.104149>
- Karlj, L. (2015). *Digital Professionalism of Teachers - LEMON Learning Modules Online* - www.coe.int. LEMON Learning Modules Online. <https://www.coe.int/en/web/learning-resources/-/digital-professionalism-of-teachers>
- Kim, D., Long, Y., Zhao, Y., Zhou, S., & Alexander, J. (2021). Teacher professional identity development through digital stories. *Computers & Education*, 162, 104040. <https://doi.org/10.1016/j.compedu.2020.104040>
- Kimmons, R. (2020). Online Professionalism. In *edtechbooks.org*. EdTech Books. https://edtechbooks.org/k12handbook/online_professionalism
- Kundu, A., & Bej, T. (2021). Technology Adoption in Indian National Education Policy 2020: An Analysis of Pedagogical, Institutional and Human Aspects. *Journal of Social Sciences*, 17(1), 145–157. <https://doi.org/10.3844/jssp.2021.145.157>
- Maimun, M., & Hakim, M. V. F. (2021). Teacher Professional Development Needs in Using Digital Technology for Quality of Education. *AL-ISHLAH: Jurnal Pendidikan*, 13(2), 907–912. <https://doi.org/10.35445/alishlah.v13i2.642>
- María Gómez-Trigueros, I. (2023). Teaching Professional Ethical Knowledge and Teaching Digital Skills in Higher Education. In www.intechopen.com. IntechOpen. <https://www.intechopen.com/online-first/85434>
- Mather, C. (2020). Digital professionalism. In *Encyclopedia*. <https://encyclopedia.pub/entry/97>
- Minea-Pic, A. (2020). Innovating teachers' professional learning through digital technologies. *OECD Education Working Papers*. <https://doi.org/10.1787/3329fae9-en>
- Ministry of Human Resource Development. (2020). *National Education Policy 2020 Ministry of Human Resource Development Government of India*.

- https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf
- O'Connor, S., Zhang, M., Honey, M., & Lee, J. J. (2021). Digital professionalism on social media: A narrative review of the medical, nursing, and allied health education literature. *International Journal of Medical Informatics*, 153, 104514. <https://doi.org/10.1016/j.ijmedinf.2021.104514>
- Purwantiningsih, A., & Suharso, P. (2019). Improving Teacher Professionalism Toward Education Quality in Digital Era. *Journal of Physics: Conference Series*, 1254, 012019. <https://doi.org/10.1088/1742-6596/1254/1/012019>
- Ravi, V. (2020). Digital Equity. In *edtechbooks.org*. EdTech Books. https://edtechbooks.org/k12handbook/digital_equity
- Shokeen, A., & Kaur, B. (2022). Factors Influencing Digital Competence of Pre-Service Teachers: A Systematic Review of Literature. *Indian Journal of Educational Technology, CIET*, 4(1), 218–229. https://ncert.nic.in/flipbook/IJET_Jan_2022/index.html#page=1
- Singh, B., Zamaletdinov, R., Kaur, B., & Singh, J. (2022). Virtual Professional Learning for School Teachers to Support Them in Online Environment. *Frontiers in Education*, 7. <https://doi.org/10.3389/educ.2022.802882>
- Sugiyanto, S., Ahyani, N., & Kesumawati, N. (2021). Teacher professionalism in digital era. *JPGI (Jurnal Penelitian Guru Indonesia)*, 6(2), 586–590.
- Syafryadin, S., Wardhana, D. E. C., & Febriani, R. Bunga. (2020). Digital training for increasing English teachers' professionalism at junior high school. *Journal of Education and Learning (EduLearn)*, 15(1), 27–35. <https://doi.org/10.11591/edulearn.v15i1.16937>
- The University of Edinburgh. (2021). *e-Professionalism*. The University of Edinburgh. <https://www.ed.ac.uk/institute-academic-development/about-us/projects/digital-footprint/eprofessionalism>
- Tour, E. (2015). Digital mindsets: Teachers' technology use in personallife and teaching. *Language Learning & Technology*, 19(3), 124–139. Retrieved from <http://lt.msu.edu/issues/october2015/tour.pdf>
- Yakovleva, O. (2022). Digital Learning Environment Values of Pre-Service Teachers as a Basis for Successful Professional Self-Realisation: A Case Study. *Education Sciences*, 12(2), 120. <https://doi.org/10.3390/educsci12020120>