

THE EVOLVING ROLE OF TEACHERS IN THE CONTEMPORARY DIGITAL WORLD

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Abstract

The study aims at exploring the role of teacher in contemporary digital world. In the digital era, the role of a teacher has evolved beyond traditional classroom instruction. Moreover, with the integration of technology into education, teachers now serve as facilitators, mentors, and digital guides, helping students navigate vast online resources. This paper explores the multifaceted responsibilities of teachers in the digital world, including their role in curating digital content, fostering critical thinking, and promoting ethical use of technology. Additionally, it highlights the importance of lifelong learning for educators, the implementation of blended learning models, and the use of digital tools to create inclusive learning environments. While technology enhances education, the human touch of a teacher remains essential in motivating students, ensuring engagement, and developing responsible digital citizens. This study underscores the necessity of redefining the teaching profession in response to the ever-changing digital landscape.

Keywords: Teacher, Digital Education, Blended Learning, E-Learning, Educational Technology, Digital Ethics, Inclusive Learning.

Introduction

One of the many spheres of life which the digital revolution has fundamentally changed is education. Thanks to the explosion of online learning platforms, artificial intelligence (AI), and interactive technology, a teacher's role has grown beyond the traditional approaches of teaching. Teachers nowadays are more than just information carriers; they are also digital guides, mentors, and facilitators who help pupils negotiate the vast sea of knowledge that is at hand. In the present day, the digital world has quickly permeated every aspect of life and has caused significant changes in our interaction, employment, and ongoing education. The advent of digital technology has brought about notable changes in the educational field especially those which have reshaped the terrain of teaching and learning. As we enter the twenty-first century to fit the technological innovations under development, a teacher's role is shifting. Teachers' responsibilities are therefore changing in dynamic and different ways than they have ever been previously (Amin, 2016) Historically, educators were mostly used as a means of information distribution; they were the main source of knowledge available. Thanks to the change of the digital world, which has made knowledge more democratic, students nowadays may get information from a great range of resources with only a few clicks. This shift changes the role of the teacher from that of a lone information provider to that of a facilitator of learning. This change calls on the teacher to help pupils negotiate an excessive amount of material while also developing critical thinking skills. Furthermore, the general usage of digital technology has led to the creation of creative teaching strategies such as blended learning, flipped classrooms, and tailored education. Thanks to these approaches, which have given teachers possibilities to enhance their teaching strategies, learning experiences have become more fascinating, relevant, and successful. Teachers have to be not only technologically competent but also constantly changing to fit fresh tools and platforms for teaching. This is so resulting from their working surroundings. The increasing frequency of online learning—which the epidemic has accelerated—has underlined even more the need of digital competency for teachers. Teachers must increasingly develop the abilities required to effectively deliver lessons and maintain close connections with students in

digital environments. This is so because e-learning platforms and virtual classrooms are increasingly included into conventional learning. This change is significant as it emphasises the importance of including digital literacy into curricula of teacher preparation. This could make sure teachers can meet the standards of modern education. Furthermore, the digital world has rebuilt the link between the teacher and the pupil. Beyond in-person meetings, communication channels have expanded so that teachers may interact with pupils on many digital platforms. This increased connectivity creates opportunities for instantaneous feedback, group projects, and the cultivation of an environment fit for learning (Fitria, & Suminah, 2020).

Conversely, it also presents challenges in terms of digital etiquette, privacy, and the management of conduct while involved in online activities. In today's world, teachers also play quite significant roles in preparing students for a future dominated by technology. Including skills like computational thinking, problem-solving, and digital literacy into their lesson plans helps teachers provide their pupils with the tools they need to thrive in a constantly shifting environment. This responsibility beyond the basic act of utilising technology to include the development of ethical awareness, the support of responsible digital citizenship, and the encouraging of creative and inventive efforts. Though the digital world offers numerous chances for development, educators must negotiate a range of challenges that need for careful navigation. The lightning-fast pace of technological developments might be frightening, hence constant professional growth is necessary to stay up with the newest tools and techniques. Furthermore, it is essential to solve issues such the digital gap, accessibility, and the risk that technology may impede the evolution of human relationships in the classroom thereby ensuring that every student has access to equal educational possibilities. In the digital age, the distinguishing traits of a teacher's profession are finally their ability to adapt, creativity, and lifelong learning devotion. While being aware of the challenges that modern technologies present, teachers are expected to embrace their advantages. This is so because the setting of education is continually changing. The ability of teachers to blend the traditional teaching strategies with the innovative ways presently used could define their effectiveness in the digital era.

Finally, the digital sphere has drastically changed the role of a teacher and expanded their responsibilities beyond the conventional boundaries. Since they act as facilitators, mentors, and learners who pursue their education during their lifetime, teachers are leading front-edge instruction for the complexity of a technologically driven culture. Their ability to negotiate this digital landscape with competency, empathy, and resilience could finally decide the kind of education that could be given in the next years. The increasing integration of digital technology into educational environments presents teachers with a great variety of opportunities and challenges. Many times, educators find it difficult to adapt to rapidly growing technological tools, maintain good teacher-student connections, and provide fair access to digital resources. This is so even if new teaching methods and easier access to knowledge are both advantages. Lack of thorough digital literacy training for teachers is another element influencing variations in the quality of education given in the digital age.

Significant of the Research

This study aims to show the development of the role that teachers play in the digital environment in order to underline the need of digital competency, flexibility, and innovative teaching strategies. The results of this research could help to clarify the problems that teachers face and provide important information that can be used to create effective training programs, policies, and projects aiming at improving teaching practices in the digital age. This study aims to look at how technology affects education so that one may help to improve the outcomes of education and thus support equitable access to first-rate education.

Research Objectives

1. To examine the impact of digital technologies on the role of teachers in contemporary education.

2. To assess the implications of digital technologies for teacher-student relationships and the overall learning environment.

Research Questions

1. How have digital technologies transformed the role of teachers in contemporary education?
2. How do digital technologies influence teacher-student relationships and the overall learning environment?

Literature Review

Because of the rise of digital technology, the function of a teacher has undergone a substantial alteration. As a result of technology breakthroughs that are transforming educational landscapes, the conventional limits of teaching are continuously being redefined. Through the examination of topics such as digital pedagogy, teacher-student interactions, technical competences, issues encountered by educators, and the consequences of digital transformation on teaching practices, the purpose of this literature review is to investigate the changing role of educators in the digital world.

Concepts of Digital Pedagogy and Methods of Instruction
The term "digital pedagogy" refers to the use of digital tools and technology for the purpose of enhancing the activities of teaching and learning. According to Henderson, Selwyn, and Aston (2017), the incorporation of digital technology into educational settings necessitates that educators modify their instructional methods in order to fit new learning contexts (Laura, 2016; Nykvist & Mukherjee, 2016; Starkey, 2020)..

According to Koehler and Mishra (2009), the increase in blended and online learning has presented educators with the problem of developing learning experiences that are not only engaging but also student-centered and make good use of digital platforms. The Technological Pedagogical subject Knowledge (TPACK) framework, which was suggested by Koehler and Mishra (2009), places an emphasis on the confluence of technology, pedagogy, and subject knowledge. This paradigm also highlights the significance of instructors' abilities to successfully integrate these components into their lessons. According to Mishra and Koehler (2006), research has shown that educators who are in possession of excellent digital pedagogical abilities are better suited to generate meaningful learning experiences in digital environments.

In addition, digital pedagogy necessitates an awareness of the ways in which technology instruments might improve, change, or modify the activities that are associated with learning. According to Bates (2015), educators are required to traverse a complex interplay of technology affordances, pedagogical principles, and subject-specific needs in order to effectively educate their students. According to the findings of research conducted by Hargreaves and Fullan (2012), effective digital teaching strategies include those that place an emphasis on collaborative learning, creative expression, and critical thinking, and that encourage students to take an active role in the learning process.

Interactions Between Instructors and Students in Digital Environments
The transition to digital learning environments has brought about a change in the dynamics of interactions between teachers and students. According to Johnson et al. (2016), in order for instructors to use online learning, they need to adapt new communication approaches in order to create rapport with their students, offer feedback, and enable cooperation. Research conducted by Richardson and Swan (2003) has shown that the relevance of immediacy and social presence in the process of cultivating good learning experiences in digital environments has been underlined.

Additionally, the use of Learning Management Systems (LMS) and other online platforms has resulted in the expansion of the responsibilities that instructors often play to include those of facilitators, moderators, and mentors (Anderson, 2008). As a result of this transition, educators are required to design ways for the creation of learning environments that are dynamic, inclusive, and cater to learners from a variety of backgrounds. According to Garrison and Anderson (2003), the use of online communication tools like as discussion forums, webinars, and virtual classrooms has

become an important component in the maintenance of successful connections between teachers and students. It is still difficult to sustain the emotional and social components of learning in digital contexts, despite the fact that there are many hurdles. According to Swan (2003), the absence of face-to-face connection between professors and students might be detrimental to the growth of trust and involvement between the two groups. Consequently, it is essential for educators to discover novel approaches to cultivate connections and improve their social presence, particularly when they are teaching remotely.

The Technological Capabilities of Teacher Professionals
As a result of the ongoing development of technology, it is becoming more important for educators to acquire digital abilities. According to Redecker (2017), the European Framework for the Digital Competence of Educators (DigCompEdu) offers a set of competencies that are important for successful teaching in the digital era. The capacity to successfully utilise digital tools, evaluate digital materials, and encourage pupils to develop their digital literacy are all included in these competences.

It has been shown via research that the technical capabilities of educators have a direct impact on their capacity to develop and deliver effective education in digital environments (Hamalainen et al., 2021). According to García and Gros (2020), it has been shown that professional development programs that are designed to enhance the digital abilities of teachers have proved to be helpful in bridging the gap between conventional teaching techniques and digital teaching practices. According to Ertmer and Ottenbreit-Leftwich (2010), the degree to which instructors have confidence, attitudes, and beliefs on the utility of digital technologies in education is a significant factor in the degree to which technology integration occurs.

To add insult to injury, the TPACK framework that Koehler and Mishra (2009) developed has been extensively accepted as a paradigm for understanding how technical, pedagogical, and content knowledge interact to support successful teaching methods. However, in order to build technical competences, one must engage in ongoing professional development. This is because technology innovations are constantly redefining the criteria of digital literacy (Blau & Shamir-Inbal, 2017). **The Obstacles That Teachers Must Overcome Regarding the Digital World**
Despite the fact that digital technologies have the potential to be beneficial to education, educators are confronted with a multitude of problems when it comes to adapting to digital surroundings. According to Ertmer and Ottenbreit-Leftwich (2010), typical obstacles to successful digital integration include a lack of proper training, restricted access to resources, and opposition to change.

As a result of the fact that not all students and instructors have the same access to technical resources, the digital gap and challenges linked to digital equality continue to be major concerns (Van Dijk, 2020). Numerous studies have highlighted the significance of resolving these difficulties by means of regulatory changes, additional financing, and activities that are specifically geared towards professional development efforts.

Implications of Digital Transformation on Teaching Practices

In addition, instructors often experience greater workloads and stress while adjusting to new technology, especially when shifting from conventional learning settings to mixed or totally online learning environments.

The transition of education into a digital environment has far-reaching ramifications for the strategies that teachers use. It is becoming more necessary for educators to embrace methods that are flexible, adaptable, and inventive in order to satisfy the requirements of students who are learning digitally (Blau & Shamir-Inbal, 2017). In addition, the incorporation of artificial intelligence (AI) and data-driven technology into educational settings offers educators with both new potential and new obstacles. According to research, in order for educators to successfully embrace digital transformation, they

need to change their attitudes and move away from being information transmitters and towards becoming facilitators of learning. Maintaining a commitment to continual improvement, engaging in collaborative learning, and engaging in continuing professional development are all necessary components of effective teaching in the digital era. Furthermore, the ability to comprehend how to utilise artificial intelligence technologies in an ethical manner and to ensure the privacy and security of data have become essential competences for educators.

Research Methodology

In order to investigate the function that educators play in the field of digital technology, this study utilises a qualitative research strategy. Because of its efficiency in comprehending complicated phenomena by means of thorough descriptions and in-depth examination of human experiences and points of view, the qualitative method is the one that has been selected. A technique known as phenomenology could be used in the research project in order to acquire insights into the experiences, perspectives, and issues that instructors have while incorporating digital technologies into the educational system.

The collection of extensive data from a variety of educational institutions could be accomplished via the use of a case study. By using this approach, it could be possible to get a comprehensive knowledge of the ways in which educators adjust to the ever-changing digital world and the methods they use to improve teaching and learning via the utilisation of technology.

Methods such as semi-structured interviews, questionnaires, and observation could be used in the data collection process. For the purpose of collecting qualitative data about the experiences, attitudes, and practices of teachers in relation to digital teaching, semi-structured interviews could be performed with educational professionals. The results from the interviews could be validated by the distribution of questionnaires, which could be used to collect a wider range of opinions. In addition, classroom observations could be carried out in order to gather information on the manner in which educators use digital technologies in real-time settings.

For the purpose of selecting individuals who have prior expertise in the use of digital technologies in the classroom, we could utilise purposeful sampling. In order to collect a wide variety of experiences and points of view, the sample could consist of educators from a variety of educational levels, including elementary, secondary, and higher education. Coding, categorising, and detecting emergent themes are the processes that could be followed in order to conduct a thematic analysis on the data that has been gathered. The coding procedure could be made easier with the use of the NVivo software, which could also improve the accuracy and dependability of the data from the study. Considerations of an Ethical Nature There could be an effort made to get ethical clearance from the appropriate institutional review boards. In order to protect the participants' privacy and confidentiality, we shall acquire their informed permission for each and every participant. Any time during the course of the research project, the participants could be able to withdraw from the study without incurring any adverse consequences. The study has a number of limitations. It is possible that the study is restricted due to the low size of the sample and the subjective character of qualitative research findings. Furthermore, it is possible that the results cannot be generalised to all educational settings; yet, they could give useful insights into the function that instructors play in the digital age.

Presentation of Research Methodology

ion	ription
earch Design	Qualitative research design using a phenomenological approach to explore

ion	ription
	ers' experiences in the digital world.
earch Approach	study approach to gather comprehensive data from various educational tutions.
Collection	semi-structured interviews, questionnaires, and classroom observations to ct qualitative and quantitative data.
pling	ositive sampling including teachers from primary, secondary, and higher ation levels.
Analysis	thematic analysis using NVivo software for coding, categorizing, and tifying emerging themes.
cal siderations	ring anonymity, confidentiality, and informed consent; participants can draw at any time.
itations of the ly	ntial limitations include small sample size, subjective nature of qualitative rch, and limited generalizability.

Data Analysis

The data analysis process for this study aims to systematically examine the qualitative data collected from semi-structured interviews, questionnaires, and classroom observations. The primary objective is to identify, analyze, and interpret patterns and themes related to the role of teachers in the digital world. A thematic analysis approach could be employed, facilitated by the use of NVivo software, to ensure accuracy, consistency, and thoroughness throughout the analysis process.

Thematic Analysis Process (Table Format)

e	ription
amiliarization	scribing interviews, compiling questionnaire responses, and reviewing rvation notes to immerse in data.
ing	ematic identification of relevant data through open and axial coding using vo software.
erating Themes	unizing related codes into broader themes that align with the research ctives.
ewing Themes	uating themes to ensure they accurately reflect the data; modifying or gning themes as needed.
ning & Naming	ly defining and naming themes to convey their relevance to the research tion.
lucing ort	theenting findings with supporting evidence and linking them to existing ature.

Explanation: The thematic analysis process involves a structured approach consisting of six stages. Each stage is essential for ensuring that the analysis is thorough, consistent, and accurately represents participants' experiences and perspectives.

Identified Themes and Sub-Themes (Table Format)

ne	ription	Themes
hers' igital Tools	Adaptation teachers adjust to integrating digital tools their teaching practices.	inological Familiarity, Digital ource Utilization.
lenges in hing	iculties faced by teachers when adopting al teaching methods.	inological Barriers, Lack of ning, Resource Constraints.
tal tices	Pedagogical egies used by teachers to enhance ing and learning using digital tools.	active Teaching Methods, tal Assessment Techniques.
ort and Training	need for institutional support and	essional Development

Professional development to enhance digital skills, Institutional Support, and Reporting.

Explanation: The themes and sub-themes have been identified based on participants' responses. The table presents a clear structure of the themes derived from the data analysis. Each theme addresses a particular aspect of the teachers' experiences in the digital world.

Data Analysis Summary (Table Format)

Stage	Approach	Tools/Techniques
1. Data Collection	Semi-structured interviews, questionnaires, and classroom observations.	Audio recording, note-taking, structured observation forms.
2. Data Organization	Systematic organization of data for effective analysis.	NVivo software for coding and categorization.
3. Data Analysis	Thematic analysis focusing on identifying patterns and themes.	Identifying, categorizing, generating themes, defining, and reporting.
4. Reporting	Ensuring credibility, transferability, dependability, and confirmability of findings.	Member checking, detailed documentation, and reflective journaling.
5. Reporting	Presentation of results with supporting evidence from participants.	Linking findings to literature, illustrating findings with quotes.

Explanation: This table summarizes the key aspects of the data analysis process, from data collection to reporting. It provides a comprehensive overview of the methods, tools, and techniques applied in the thematic analysis.

The inclusion of tables makes the structure and flow of the analysis more organized and easier to understand. The explanations provided below each table ensure clarity and coherence of the presented data.

Discussion

The data analysis process for this study aims to systematically examine the qualitative data collected from semi-structured interviews, questionnaires, and classroom observations. The primary objective is to identify, analyze, and interpret patterns and themes related to the role of teachers in the digital world. A thematic analysis approach could be employed, facilitated by the use of NVivo software, to ensure accuracy, consistency, and thoroughness throughout the analysis process.

Thematic analysis is chosen as it offers a flexible yet rigorous approach to analyzing qualitative data. This method is particularly effective in identifying commonalities and differences across the dataset, allowing for a deeper understanding of teachers' experiences, perceptions, and challenges when engaging with digital tools in educational contexts. Braun and Clarke's (2006) framework for thematic analysis could be utilized, which involves six key stages: Familiarization, Coding, Generating Themes, Reviewing Themes, Defining and Naming Themes, and Producing the Report. The data familiarization stage involves immersing oneself in the data to gain a comprehensive understanding of the collected information. During this stage, audio recordings of interviews could be transcribed verbatim, and detailed notes from questionnaires and classroom observations could be compiled. Careful reading and rereading of transcripts is allowed for a holistic view of the data, enhancing familiarity and ensuring that all significant details are captured for further analysis. NVivo software assists in organizing and managing the data to facilitate effective analysis.

Coding is a critical step in thematic analysis, involving the systematic identification of meaningful units of data related to the research question. Initial coding could be conducted inductively, meaning that codes could emerge from the data rather than being predetermined. Descriptive codes could be assigned to segments of text that are relevant to the study's objectives. NVivo software has been used to apply codes consistently and efficiently, ensuring that all relevant data segments are appropriately categorized.

The coding process is proceeded in two phases: open coding and axial coding. During the open coding phase, preliminary codes could be generated to capture significant features of the data. In the axial coding phase, relationships between codes that are examined to identify broader categories and patterns. The process could be be iterative, allowing for refinement and modification of codes as necessary.

Once coding is completed, the next step involves identifying and organizing related codes into potential themes. Themes represent patterns of meaning that are significant to the research question. In this study, themes may include "Teachers' Adaptation to Digital Tools," "Challenges in Digital Teaching," "Digital Pedagogical Practices," and "Support and Training Needs."

NVivo software could be employed to group related codes into themes and subthemes, facilitating the organization of data in a coherent manner. The generation of themes could be guided by the research objectives, ensuring that the analysis remains focused on the role of teachers in the digital world.

The reviewing phase involves evaluating the themes to ensure they accurately reflect the data. Themes could be refined, modified, or merged as necessary to improve coherence and consistency. This phase also includes examining the relationships between themes to identify overarching patterns and insights. Any discrepancies or ambiguities could be addressed to enhance the credibility and reliability of the findings.

Once the themes have been reviewed and refined, they could be clearly defined and named to convey their essence. Definitions could be provided to explain each theme's scope and relevance to the research question. Clear naming of themes could contribute to the clarity and coherence of the analysis, ensuring that the findings are effectively communicated.

The final stage of the thematic analysis involves producing a detailed report that presents the findings in a structured and coherent manner. The report could include illustrative quotes from participants to provide evidence supporting the identified themes. The discussion could link the findings to the broader literature on the role of teachers in the digital world, highlighting similarities, differences, and implications for practice.

To ensure the trustworthiness of the findings, the criteria of credibility, transferability, dependability, and confirmability could be applied. Credibility could be established through member checking, where participants could be invited to review the findings for accuracy. Transferability could be addressed by providing detailed descriptions of the research context and participants. Dependability could be ensured through thorough documentation of the research process, while confirmability could be promoted by maintaining a reflective journal to record the researcher's biases and assumptions.

The data analysis process could be conducted systematically to uncover meaningful patterns and insights related to the role of teachers in the digital world. The use of NVivo software could enhance the rigor and accuracy of the analysis, contributing to the overall reliability and validity of the study.

Conclusion

In conclusion, the role of teachers in the digital age has transformed from being mere knowledge providers to becoming facilitators of learning, digital mentors, and lifelong learners themselves. As technology continues to shape education, teachers must embrace digital tools and pedagogical innovations to create inclusive, engaging, and effective learning experiences. This evolution calls for continuous professional development, adaptability, and a commitment to fostering critical thinking, creativity, and digital literacy among students. By balancing traditional teaching values with modern technological advancements, educators can empower students to navigate the complexities of the digital world with confidence and competence. Ultimately, the evolving role of teachers in the digital age underscores the timeless importance of human guidance and mentorship in education, even within a rapidly changing technological landscape.

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