

ETHICAL ATTITUDES OF TEACHERS IN THE DIGITAL AGE: CHALLENGES AND OPPORTUNITIES IN LEARNING

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Abstrak

Keywords:

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Through this research, the author aims to understand the ethical attitudes of teachers in the digital era and the various challenges and opportunities in technology-based learning. This research was conducted using a descriptive qualitative approach through a literature review, examining various relevant scientific sources. The findings of this study indicate that teachers' ethical attitudes include the ability to maintain professionalism, academic integrity, and student privacy in the use of digital technology. Challenges faced by teachers include limited digital literacy, moral issues, and disparities in technology access. However, the era of digital development also opens up opportunities for teachers to continuously improve their professional competence and develop more creative and innovative learning. Therefore, strengthening teachers' ethical attitudes is a crucial aspect in efforts to improve the quality of education in the digital era.

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INTRODUCTION

The development of digital technology has changed the social life patterns of society and teaching and learning processes around the world. The changes that occur are so rapid, that every teacher is expected to not only be able to utilize technology, but also have an ethical attitude in using and incorporating it into teaching and learning activities. As part of the education system, teachers must be able to maintain professionalism and ethics in dealing with so much information and exploring various aspects of life. This is certainly a challenge because technology not only changes the way of learning, but also the way teachers communicate with students and the education community as a whole (Hendra Jeli, Fariska Nurjannah, 2025).

The way teachers maintain academic integrity and maintain the privacy of students when using digital technology is one of the important things in ethics.

Sometimes, teachers face confusing moral situations, such as the use of student data, content control, and how to balance technology that can distract students. This shows that ethics is now not only about the old moral rules, but must be seen in the context of an ever-evolving digital world (Faizah et al., 2025).

In terms of professionalism, digital ethics is also related to how teachers maintain the image of data professionalism while in the digital space. The existence of teachers when appearing as educational content creators on various platforms such as social media shows that digital professionalism must be supported by ethical values so that the role of an educator is not only considered as a content creator that is less meaningful. Research shows that instilling moral values in the digital content that teachers create can reflect their professional responsibilities, while also having a positive impact on learning interactions (Faizah et al., 2025).

In addition, teachers also sometimes feel pressured because of the expectation to always be digitally active, share learning results, and use various applications in the teaching and learning process. This can certainly pose a risk and cause ethical problems if the limits on the use of technology are unclear, such as using personal accounts to communicate with students or sharing material that has not been verified for truth. Conditions like this make ethical attitudes an important basis in determining what things should and should not be done by teachers in the digital environment (Nurlela et al., 2025).

Another challenge stems from differences in access to technology in various school environments. Not all schools have enough digital devices, so teachers must be more creative in using existing resources without ignoring ethical values in learning. These differences affect the quality of the teaching and learning process and force teachers to have their own approach so that learning remains fair and inclusive. This also shows that teachers' digital ethics are not only about moral values but also social relationships (Nurlela et al., 2025).

Furthermore, the digital literacy possessed by teachers greatly affects their ability to manage ethical and useful content. Teachers who do not understand enough about digital ethics often have difficulty in choosing the right content for learning, as well as difficulties in guiding students to use technology responsibly. Therefore, the development of teachers' ethical attitudes must be supported by improving digital competencies that are integrated with professional ethical values (Sitompul et al., 2022).

On the other hand, schools and those concerned with education need to provide support in the form of training, policies, and clear digital ethics guidelines so that teachers can face these challenges more effectively. Without adequate support from institutional structures and education policies, individual teachers' efforts to maintain digital ethics tend to be difficult to maintain and can lead to inconsistencies in teaching methods (Purba Rahma Dania, Syahida Az Zahra, Rahmat Rizki Hutagalung, 2025).

This article aims to discuss in depth how a teacher's ethical attitude can be formed and applied in a sustainable manner in the learning process in the digital era. By understanding the various challenges and opportunities needed, the author hopes that the results of this research are expected to provide benefits, both from the theoretical and practical aspects in improving the professionalism of teachers as a whole, including moral, educational, and technological aspects, in order to meet the needs of future education that are increasingly complex and digital.

RESEARCH METHODS

This research was conducted with a descriptive qualitative approach through literature *review*. This method was chosen with suitability considerations in order to explore in depth the ethical attitude of teachers in the digital age through the study of various relevant scientific sources, such as journals, and other scientific publications. Information sources are obtained from relevant journals discussing teacher professional ethics, ethics in the digital world, and learning using technology. The literature used is carefully selected, taking into account the suitability of the topic, novelty, and credibility of the publisher.

The data was analyzed by reading, recording, and grouping important information from each source based on key themes, such as understanding digital ethics, the challenges faced by teachers, and how to apply ethical attitudes in the teaching and learning process. The results of the analysis are then compiled descriptively to provide a complete and structured picture of teachers' ethical attitudes in the digital era. By reviewing this literature, the research is expected to provide a clear and in-depth understanding, as well as become the basis for developing educational practices and policies that are more ethical and able to adapt to technological developments.

RESULTS AND DISCUSSION

Based on analysis from various sources such as scientific articles and journals, the ethical attitude of teachers in the digital era presents various challenges as well as opportunities in learning, which can be described as follows.

Ethical Attitude of Teachers in the Digital Era

Teachers' ethical behavior in the digital age no longer only reflects their behavior when teaching in person in the classroom, but also includes their presence and interaction in the digital space. The presence of technology in learning forces teachers to uphold moral values, professionalism, and social responsibility in every technology-based activity. Teachers not only use technology as a means of supporting learning, but also as a new space that demands ethical awareness in acting and communicating (Sitompul et al., 2022).

Teachers' digital ethics cover various aspects, ranging from how to convey information to students, the selection of educational content, to teachers' attitudes when using social media and other digital platforms. The information submitted by the teacher must be accurate, not misleading, and uphold copyright and maintain the privacy of others. In this case, teachers are required to be more selective and critical, because small mistakes in the digital world can have a wide and prolonged impact.

In addition, the ethical behavior of a teacher is closely related to his or her ability to maintain clear boundaries between his personal and professional life. In the digital age, these boundaries often become blurred, especially when teachers and learners connect through social media or online communication apps. Teachers need to realize that every digital mockery they leave behind can affect their professional image as educators. Therefore, being thoughtful, courteous, and responsible should be the main principles in every online interaction they make.

In the learning environment, teachers not only play the role of conveying information, but also as role models for students in utilizing technology wisely and responsibly. When teachers exhibit positive digital behaviors such as respecting the opinions of others, avoiding the dissemination of unverified information, and using polite language, learners tend to imitate such examples in their daily lives. This modeling occurs naturally, but it has a big role in shaping the character of students.

Thus, the digital ethics of a teacher has a very meaningful role in fostering character education in the digital era. The ethical behavior of a teacher is not only the foundation of professionalism, but also a way to teach values to students. Teachers who consistently apply

digital ethics help create a safe and meaningful learning environment, which focuses on the moral development and social responsibility of learners, especially as technology continues to evolve rapidly.

Dynamics of Teacher Challenges in the Digital Era

The digital era brings significant changes in various aspects of life, including the role of teachers. Teachers play a key role as important figures in the process of changing global education. This requires preparation to face various challenges in the future. Learning in the digital era encourages students to develop skills, knowledge, and abilities in the fields of technology, learning skills, discovery skills, as well as practical and professional abilities. In order to be in the learning process in the digital era, every individual needs to develop critical thinking skills, digital literacy, issue literacy, media literacy, and mastery of Information and Communication Technology (ICT) (Taraju et al., 2022).

The challenges of 21st century learning are part of the challenges faced by teachers in the digital era. The rapid development of technology shows that today's students are no longer fully in line with the education system of the previous century, namely the 20th century. There are still many teachers who are not able to keep up with the development of the world of technology, and some of them are still using the learning approaches and tools developed in the 1980s. Meanwhile, technologists have taken advantage of a variety of modern products. As a result, there is a huge gap between educators and learners. This difference is caused by the many differences between educators and students. Driven by the condition of some teachers who are still in the process of adjusting to the development of the world of technology that continues to increase every day and surpasses the acceleration of educational modernization. (Saerang et al., 2023)

According to (Taraju et al., 2022), this is one of the challenges faced by teachers in the digital era. among others: (1) Moral Challenges, the development of science and technology has a great influence on the values of people's lives. The impact of technology has led to a decline in traditional values that emphasize the importance of morality in daily life. Through education, teachers must be able to cultivate moral values in students so that students do not lose their identity; (2) Digital literacy, is the ability to use learning devices such as gadgets, tablets, computers, and laptops wisely. As teachers, we are required to be able to complete various tasks easily, both in teacher administration and reporting administration; (3) Social crisis, the presence of social media makes it easier for people to make friends in cyberspace. In addition, the presence of science and technology and capitalism also allows crime, violence, unemployment and unemployment. In this case, teachers must overcome this challenge by responding to these realities through education. Schools as formal institutions entrusted by the community, tasked with training students to be able to live in various conditions and situations; (4) The development of science and technology, teachers must have a responsive, wise, and careful attitude. Responsive to mastery of science and technology that is suitable for use in multimedia learning; (5) Teachers must be role models, teachers set an example for students; (6) Technology-based learning media In the current digital era, teachers must be able to use technology so that they can create a more creative and innovative learning process.

At this time, teachers are faced with more complex professional responsibilities than before. According to Diplan (2019) in Al Fatah & Amirudin (2022), a teacher is not only required to understand the subject matter, but also must: (1) Stay up to date with technological developments and come up with creative and innovative ideas. (2) Be an example for students, helping them understand the rules for using technology correctly. (3) Be open to new ideas and innovative thinking. (4) Teaching students important skills, such as critical thinking, good communication, teamwork, problem-solving, and creativity.

The main challenge for teachers today is not only facing the rapid changes brought by technology and globalization. The impact of technological developments is not only limited to the aspect of knowledge, they also affect the social and cultural aspects of society. These changes have a great impact on values in society, especially in societies with eastern cultures

and customs such as Indonesia, technological advances today have a great influence on the cultural values adhered to, both in urban and rural areas. As a professional, teachers need to continue to improve their skills as educators given the rapid advancement in science and technology in the era of globalization. This certainly increases the challenge for teachers in educating students so that students can become quality human resources, in accordance with the goals of national education. Teachers should not be left behind in technology, they need to learn and use it well to facilitate and improve the efficiency of the teaching and learning process (Ismail Shalahudin, Suhana, 2020)

It can be said that paying attention to these challenges, teachers can play an effective role in digital learning, while helping students hone relevant skills while preparing them to face the demands of an increasingly connected and complex world.

Teacher Opportunities in the Digital Era

Teachers have a very important role to improve skills in the digital era, and this role needs to be carried out as well as possible. Teachers are the main pillars of the education system, so their quality must be high, which in turn will make for a better education. Research also shows that teachers' digital skills have a positive impact and are important for their ability to teach effectively. Therefore, it is necessary to develop teachers' professional skills in the digital field (Surya, 2022). In addition to challenges, the digital era also provides opportunities that can be used to improve various things. In this context, these opportunities are seen as opportunities to improve teachers' professional skills in the digital era, which can lead to better education and learning outcomes. (Sulistyarini et al., 2022)

The digital era provides many opportunities for teachers to obtain wider learning materials and resources. Currently, there are many digital *platforms* that can be used to get learning content. This makes it easier for teachers to teach and evaluate. The use of digital *platforms* as an online learning tool can help the learning process in the classroom. (Saerang et al., 2023)

Teachers in the digital age should pay more attention to the opportunities that exist, because in this era it is easier for teachers to carry out teaching and learning activities. The use of technology and information in the digital age can help teachers in carrying out various tasks. According to (Fatah, Nur Al, 2022), the opportunities owned by teachers in today's digital world include: (1) Development of digital-based teaching materials. In this digital era, teachers can create teaching materials that are supported by technology. Digital-based learning materials include various types of learning resources such as videos, interactive presentations, animations, educational games and online learning platforms. Digital teaching materials offer flexibility and help present the material in a more engaging way. Teachers can create learning materials that match the needs and hobbies of students, by presenting the material in a more interesting and interactive way. In addition, subject matter in digital form also provides teachers with the opportunity to respond quickly and monitor student development more easily. It is important to ensure accessibility for all students, including those with disabilities. Teachers also need to master tools and technology to present teaching materials well. (2) Development of teaching materials with a multicultural perspective. In the era of technological development, teachers can develop multicultural teaching materials using technology. They can introduce various cultural, linguistic, and social perspectives and connect students with friends from other countries through video conferences. Teachers can also use digital resources to teach about the cultures, traditions, and daily lives of various countries. The use of learning materials with a multicultural perspective can support students to improve their critical thinking skills, communicate with people with different backgrounds, and appreciate diversity as an enrichment of social values. It is important for teachers to avoid stereotypes and consider the cultural context of learners in order to create an inclusive learning environment. (3) Development of teaching materials with ecological content. It is very important for a teacher to create open material that is ecological with attention to sustainability issues and intelligence. Teachers play a role in teaching students about protecting nature and acting sustainably by utilizing digital resources. They can use

videos, infographics, or computer simulations to talk about issues such as global warming, deforestation, and biodiversity. Students can learn about the efforts being made to overcome these problems, as well as how they can participate in protecting the environment. Teachers also motivate students to participate in environmental projects. It is important to implement eco-friendly practices when delivering materials and maintaining resources in the classroom.

Improving the quality of education will not mean much if teachers do not have the right skills. Because teachers are an important part of the learning process, they assist students in achieving success with a significant role. That is why students can become better if teachers have adequate qualifications, abilities, and skills.

CONCLUSION

Teachers' ethical attitudes in the digital era are an important element in maintaining professionalism and quality of technology-based learning. Teachers are expected not only to master technology, but also to be able to maintain academic integrity, protect students' privacy, and show exemplary behavior in the digital space. Various challenges faced by teachers include limited digital literacy, moral crises, and gaps in access to technology that can affect learning effectiveness. On the other hand, the digital era also provides opportunities for teachers to improve their professional competencies while creating more innovative and creative learning. Therefore, strengthening teachers' ethical attitudes supported by increasing digital literacy and clear education policies is needed to create responsible learning that is relevant to the times.

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