

## **Bridging Theory and Practice: A Systematic Review of Educational Philosophy in Digital Learning Contexts**

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**Abstract:** The integration of digital technology into education presents both transformational opportunities and complex challenges for today's learning systems. This research aims to bridge classical educational philosophy theories – particularly pragmatism, constructivism, and humanism with the realities of digital learning. Using the Systematic Literature Review (SLR) method, this research synthesizes findings from scientific articles published between 2020 and 2025 to analyze the application of philosophical principles in technology-based pedagogical practices. The results show that educational philosophy continues to play a crucial role in shaping meaningful digital learning by fostering critical thinking, creativity, independent learning, and ethical awareness. However, issues such as the digital divide, shallow learning engagement, and ethical dilemmas related to data privacy remain key challenges. The novelty of this research lies in its integrative philosophical mapping that connects classical theories with the dynamics of 21st-century digital learning. Practically, the results of this study emphasize the importance of designing a digital education framework grounded in humanistic and reflective values. This research provides conceptual contributions for educators, policy makers, and learning designers to ensure that technology functions as a means of supporting the humanitarian goals of education, not as a determinant of the direction of education itself.

**Keywords:** Digital Humanism, Digital Learning, Educational Philosophy, Systematic Literature Review, Technology-Enhanced Education

### **A. Introduction**

The philosophy remains fundamental as a conceptual foundation that drives the direction and meaning of education. Various philosophical schools of thought, such as pragmatism, constructivism, humanism, and existentialism, provide important frameworks for understanding the nature of learning, the relationship between educators and students, and the moral and social goals of the educational process. In other words, educational philosophy serves as a normative compass, ensuring that

education focuses not only on technological efficiency but also on the development of the whole person.

While the relationship between philosophy of education and digital learning is increasingly discussed, a significant gap in the academic literature remains unaddressed. Covering the ethical aspects of education in the digital age, including issues of privacy, copyright, and equitable access to technology, they emphasized that digital innovation in education must be accompanied by moral responsibility, so as not to neglect the values of humanity and social justice that are at the heart of educational philosophy itself (Ganap & Moge, 2024).

Most research focuses solely on the relationship between a specific philosophical approach and a specific technology for example, the application of constructivism to collaborative online learning or the use of humanistic principles in the design of AI-based learning interfaces. The research findings indicate that participants' expectations are related to cognitive load theory, constructivist theory, and sociocultural theory. Several challenges threatening innovative development emerge in educational and scientific settings. These challenges include ethical issues, misinformation, the digital divide, uneven infrastructure, lack of regulation, lack of digital skills, resistance to change, technology integration, and limitations of digital pedagogy (Storozhyk, 2024). That AI integration makes a significant contribution to improving the educational process, fostering student creativity, and enhancing scientific practice (Dzogovic et al., 2024). However, to date, there has been a lack of a comprehensive synthesis that maps various philosophical theories of education to the practical application of educational technology, identifies emerging challenges, and formulates collective directions and implications for the future of digital education. Generative Artificial Intelligence (GAI) technologies like ChatGPT are transforming the educational landscape. Their integration offers significant opportunities for personalized learning and increased student engagement, but also raises challenges related to academic integrity and the role of human educators (Ahmed et al., 2024). This lack of a conceptual map creates a disconnect between in-depth philosophical thinking and the increasingly complex implementation of technology in education.

Recent research shows that the discourse on the relationship between the philosophy of education and digital technology is developing rapidly. describes several formats of coexistence of digital innovation and fundamental humanitarian educational principles: the gradual removal of the humanitarian component from the scientific and ideological educational paradigm and its replacement with technology (Melnik, 2022). Several studies have explored the application of constructivist principles in blended learning, humanistic values in the use of artificial intelligence-based tutors, and pragmatic perspectives in experiential learning through digital media. However, these studies remain fragmented, limited to specific contexts, and have not integrated various philosophical schools into a coherent analytical framework.

Interpretivism and radical humanism offer valuable tools for incorporating ancient and non-Western moral philosophies by emphasizing cultural specificity and subjective meaning. However, contemporary leadership theories often align with utilitarianism, supplemented by various other moral frameworks (Macpherson, 2025). As a result, philosophy's contribution to the ethical, social, and pedagogical directions of educational digitalization has not been systematically described. Based on these conditions, the Education 4.0 era requires both instructors and students to shift their learning and teaching paradigms by adopting and engaging in innovative pedagogies such as heutagogy, Peeragogy, and cybergogy. The techno-pedagogical mapping developed through this systematic review can provide valuable guidance for creating an immersive blended learning environment that aligns with the mission of twenty-first-century education. The novelty of this research lies in the presentation of a synthesis that combines philosophical values such as critical reflection, independent learning, and ethical awareness with empirical technology-based educational practices.

Theoretically, this research contributes to broadening the study of the philosophy of education by demonstrating the relevance and viability of classical theories amidst disruptive technological change. Philosophical inquiry into human existence, enriched by centuries of thought, provides a vital framework for examining these challenges. It urges us to balance the technological imperatives of efficiency and innovation with the ethical considerations of human dignity and social cohesion (Khuat, 2024). Practically, the results of this study are expected to serve as a reference for educators, policymakers, and curriculum designers in designing digital learning systems that are not only effective and innovative, but also grounded in humanitarian values and educational ethics. Thus, this research seeks to bridge the gap between philosophical thought and the practice of digital education so that technology does not become a determinant of educational direction, but rather a tool to strengthen the humanitarian goals of education itself.

Based on this background, this research aims to answer the main question: How can the basic theories of educational philosophy be systematically applied to guide the ethical and effective integration of technology into learning, and what are the main challenges and future development directions identified in the literature?

## **B. Methods**

This study employed a systematic literature review (SLR) methodology, following the PRISMA 2020 (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guidelines. Over the past decade, advances in systematic review methodology and terminology have demanded updates to these guidelines (Page et al., 2021). The aim was to synthesize and critically analyze existing research exploring how educational philosophy underpins practices and innovations in digital learning contexts across K-12 and higher education. Relevant studies were

identified through comprehensive searches across multiple academic databases, including Scopus, web of science, ERIC (Education Resources Information Center), and Google Scholar. The search was conducted between 2020 and 2025, using the following keyword combinations and Boolean operators, commonly used operators are considered conceptually simpler than other Boolean operators not found in natural languages (Carcassi & Sbardolini, 2023):

1. "philosophy of education" AND "digital learning"
2. "constructivism" AND "educational technology"
3. "philosophy of education" AND "online learning"
4. "pedagogical theory" AND "technology integration"

Manual A manual search of the reference lists of primary articles was also conducted to ensure completeness of data collection.

### **Inclusion and Exclusion Criteria**

Articles were included if they met the following criteria:

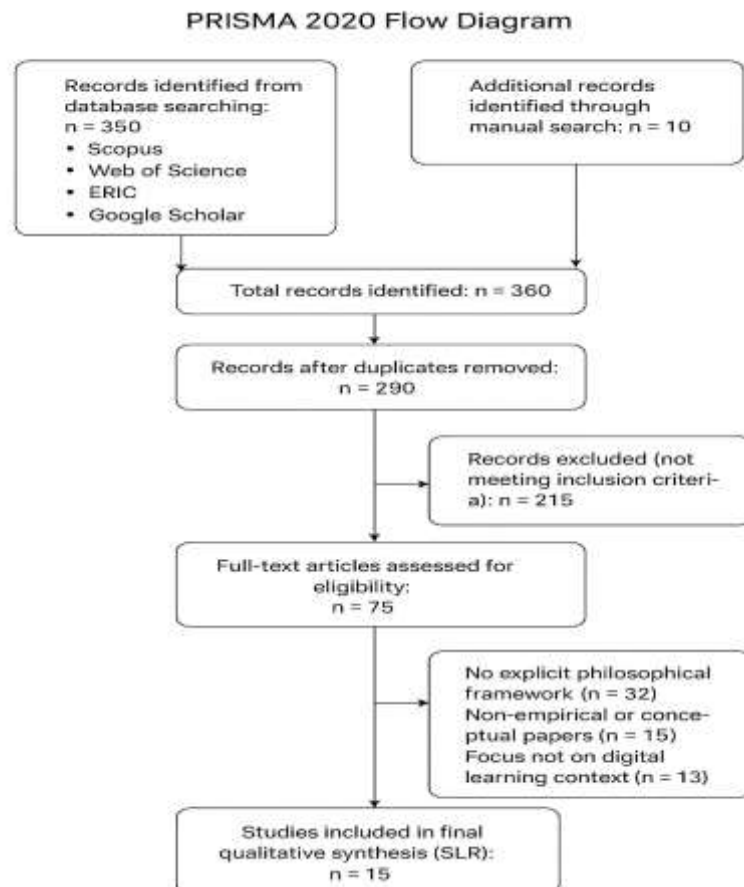
1. Published in a peer-reviewed journal between 2020–2025.
2. Written in English.
3. Focused on the context of K–12 or higher education.
4. Explicitly connects established philosophical frameworks (e.g., constructivism, pragmatism, humanism, critical theory) to digital or technology-based learning.

Exclusion criteria include:

1. Editorials, book reviews, or opinion papers.
2. Non-English publications.
3. Articles that discussed digital learning without philosophical grounding or theoretical linkage.

### **Search and Selection Process**

The initial database search yielded 350 records. After removing duplicates, 290 articles remained for title and abstract screening. Based on inclusion and exclusion criteria, 75 full-text articles were assessed for eligibility. After full-text review, 15 studies met all criteria and were included in the final synthesis. The selection process adhered to the PRISMA 2020 standards and is visually represented in Figure 1 (PRISMA Flowchart).



## Data Extraction and Analysis

Data were extracted using a coding matrix that included author, year, country, research focus, educational philosophy, digital learning context, research method, and main findings. A thematic analysis approach was then used to identify key patterns and insights across the studies. Four analytical dimensions guided the coding process:

1. Philosophical foundation (e.g. constructivism, humanism, critical pedagogy).
2. Technological application (e.g., digital platforms, AI-based learning, LMS integration)
3. Educational outcomes (e.g., engagement, critical thinking, autonomy).
4. Reported challenges (e.g., digital divide, philosophical inconsistencies, ethical issues).

The analysis seeks to bridge theoretical perspectives with practical applications, providing a coherent understanding of how educational philosophy informs digital learning practices in contemporary education.

### **C. Results and Discussion**

A systematic analysis of 15 international articles published between 2015–2025 shows that classical educational philosophies such as pragmatism, constructivism, humanism, existentialism, and critical theory remain the main foundations in modern digital learning practices. The synthesis results show that although the contexts and technologies used vary (adaptive AI, LMS, VR/AR, gamification, and learning analytics), a philosophical orientation remains the basis for designing effective and meaningful digital pedagogy (Coeckelbergh, 2024).

**Table 1. Articles Reviewed**

No	Title	Author & Year	Learning Objectives	Research Method	Research Findings (Expanded Description)	Conclusion
1	Principles of digital humanism: A critical post-humanist view	(Prem, 2024)	Critically examining the concept of digital humanism its origins, motivations for its formation, and its relationship to classical humanism, digitalization, and post-humanist views.	conceptual analysis and critical philosophical reflection	Digital humanism has emerged as a new and developing field. Although born out of concerns about the impact of digitalization, this field lacks a standard definition and boundaries, and still overlaps with other disciplines such as digital ethics and the philosophy of technology.	Digital humanism, in the critical post-humanist view, does not simply celebrate digital innovation or assert human dominance, but raises fundamental questions about the relationship between humans and technology: how human dignity, autonomy, and responsibility can be maintained as the boundaries between humans and machines become increasingly blurred.
2	<i>Digital Pedagogy Philosophy : Building Critical Awareness of the Role of Technology in Education</i>	(Fadli, 2024)	Examines the philosophical foundations of digital pedagogy, namely how the integration of technology in education must be grounded in ethical values and moral considerations. Explores how the philosophy of digital pedagogy can help build critical awareness of the role and implications of technology in the educational process.	Hermeneutic approach	The philosophy of digital pedagogy serves as the ethical foundation and moral values for the use of educational technology. Technology should not be applied haphazardly, but rather should be considered in terms of its meaning, social impact, and the humanitarian goals of education.	Technology in education must be integrated within a strong philosophical and ethical framework, so that digitalization does not displace the humanitarian values of education, but rather strengthens them. Digital pedagogy is not merely a technical innovation, but also a humanitarian project and a philosophical reflection on the meaning of learning in the digital age.
3	Learning Objectives Research Method	(Sing Yun, 2023)	Examining the challenges faced by the education	This study uses a systematic	Access & infrastructure: Many students and teachers face	The rapid transition to online learning exposed many

No	Title	Author & Year	Learning Objectives	Research Method	Research Findings (Expanded Description)	Conclusion
	Research Findings (Expanded Description) Conclusion		system when there was a sudden transition to digitalization of learning during the COVID-19 pandemic, namely from face-to-face learning to online or hybrid learning.	literature review method with an approach such as PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses).	challenges such as unstable or inadequate internet connections, limited digital devices, high data/internet costs, and disparities between urban and rural areas.	weaknesses in the education system in terms of infrastructure, digital readiness, and supportive learning environments.
4	A Mixed-Methods Study of Early Childhood Education and Care in South Korea: Policies and Practices During COVID-19	(Yu et al., 2021)	Analyzing how government policies and public organizations in South Korea responded to the COVID-19 pandemic in the field of Early Childhood Education and Care (ECEC) during the first six months of the pandemic.	This research uses mixed methods	Institutions are following health and safety protocols such as temperature checks, mask use, and social distancing. However, many have complained about a lack of infrastructure/practical support (e.g., children's masks, sanitation equipment) and guidelines that are not aligned with the institution's practical conditions.	The study concluded that the South Korean government's response to ECEC during the pandemic was relatively good in scope (covering many aspects), but there was a lack of depth and focus, especially on the experiences of children who were cognitively and creatively "challenged."
5	Model of ethical analysis of digital technologies: towards true digital humanism	(Díaz de la Cruz et al., 2025)	Developing an ethical analysis model for digital technology that allows for evaluation of the extent to which the technology is in accordance with the concept of Digital Humanism, namely technology that serves humans, not the other way around.	Literature review	The model suggests that digital technologies are not ethically neutral; design, purpose, social context, and written or unwritten values determine whether the technology supports or undermines humans as the center.	The proposed model can serve as a practical tool to analyze digital technologies within a humanistic values framework (digital humanism) and assess the extent to which these technologies contribute to human development and social well-being rather than just economic gains.

No	Title	Author & Year	Learning Objectives	Research Method	Research Findings (Expanded Description)	Conclusion
6	Review of Instructional Digital Media to Path Teachers' Digital Competence on Philosophical Perspective: Distraction or Diversion	(Ismail et al., 2023)	Exploring whether instructional digital media in education can be considered a distraction or a meaningful diversion for the learning process – from a philosophical perspective	library research	That understanding the basic philosophy of learning is very important – meaning teachers need to understand the philosophy behind learning (why and how students learn) as a fundamental reason for deciding to use instructional digital technology/media.	Teachers' use of instructional digital media will not automatically improve their digital competence or the quality of learning – success depends on how teachers understand the learning philosophy, choose media appropriately, and integrate them with meaningful instructional strategies.
7	The Relevance of John Dewey's Philosophy of Education in Early Childhood Development in the Digital Age	(Sulistiawati, 2024)	Examining the relevance of John Dewey's educational philosophy particularly the ideas of experiential learning, social engagement, and a child-centered approach in the context of early childhood education (ECE) in the digital age	Literature review approach.	Dewey's core idea remains highly relevant: children learn most effectively through direct experience and social interaction, not simply through passively receiving information. In the digital age, various media such as tablets, interactive apps, and instructional videos can become experiential learning tools when used in accordance with Dewey's principles – that is, encouraging exploration, interaction, and reflection.	John Dewey's educational philosophy remains highly relevant in the development of early childhood education in the digital age. His principles of experience, social interaction, and continuous growth serve as a crucial philosophical foundation for designing technology-based learning.
8	Editorial: Digital learning and education in a project society	(Konstantinou et al., 2023)	Reviewing how digital learning and education have evolved in the context of a “project society” a society increasingly characterized by project-based work,	Conceptual overview	Digital education and online learning are not fundamentally “new” what happened during the pandemic was to accelerate trends that were already underway (the digitalization of	The editorial concludes that the future of digital education in a project society demands a more flexible, collaborative, project-based and adaptive paradigm – not just conventional teaching

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			flexibility, global collaboration and uncertainty		education, distance learning, blended learning) and make the need to move away from traditional teaching paradigms even more apparent.	models replaced by screens.
9	The Ethics of Using Digital Trace Data in Education: A Thematic Review of the Research Landscape	(Hakimi et al., 2021)	To map and understand the characteristics of existing research on the ethics of using digital trace data in education – including study types, academic communities, institutional and country contexts	systematic thematic analysis	Research mapping shows that although 77 studies were analyzed, the research focused more on higher education or adult levels while evidence for primary school or pre-school children was very limited.	This research concludes that the use of digital footprint data in education presents significant ethical challenges not only regarding privacy, but also regarding fairness, representation, accountability, and governance.
10	Approaches to Digital Humanities Pedagogy: a systematic literature review within educational practice	(Georgopoulou et al., 2025)	Identifying and mapping various pedagogical approaches in the field of Digital Humanities (DH) in educational practice, especially how DH is applied as an “application field” in the learning context.	Systematic Literature Review (SLR)	Of the total studies selected (102 publications), it was found that 42 studies discussed DH as a subject of study, and 57-60 studies discussed DH as a field of application in education.	This article concludes that pedagogical practices in the field of Digital Humanities in education are still very concentrated in higher education and in the humanities, with the use of technology tending to be as a tool/facilitator, while critical components of technology and digital literacy are still underdeveloped.
11	Digital humanism as a bottom-up ethics	(Serrano et al., 2024)	Understand the concept of digital humanism as a human-centered ethical framework in dealing with the development of digital technology.	conceptual approach and normative analysis	Digital humanism emphasizes that technology should be developed and used to enhance human capabilities, expand freedoms, and deepen social life – not simply to pursue	The concept of Digital Humanism as a Bottom-Up Ethics offers a new paradigm for understanding the relationship between humans and technology in the digital era: not just regulating behavior

No	Title	Author & Year	Learning Objectives	Research Method	Research Findings (Expanded Description)	Conclusion
12	What is digital humanism? A conceptual analysis and an argument for a more critical and political digital (post)humanism	(Coeckelbergh, 2024)	Explain conceptually what digital humanism is and how it evolved from the classical humanist tradition to a more critical form in the digital age. Distinguish between digital humanism and posthumanism and understand the philosophical tensions between the two regarding the human-technology relationship.	conceptual and philosophical analysis	efficiency or data control.  Digital Humanism is defined as an approach that places humans, human values, and dignity at the center of the design, use, and regulation of digital technologies.	externally (top-down), but also cultivating human values through participation, dialogue, and shared reflection.  Digital humanism, when understood deeply, is not merely a technical project to make technology “human-friendly,” but a philosophical and political agenda to reaffirm the role of humans as moral subjects and active digital citizens.
13	Introduction to digital pedagogy: a proposed framework for design and enactment	(Tan et al., 2024)	Understand the concept of digital pedagogy and how teachers can act as agents of change in designing and implementing learning that uses digital technology.	Literature analysis and conceptual synthesis	The author emphasizes that technology integration in learning is not just about inserting devices or applications, but more about pedagogical design – how teachers design meaningful learning experiences with technology.	This article concludes that effective digital pedagogy requires a more holistic approach: not just about technology, but about how teachers design and realize meaningful learning with technology.
14	The Use of Learning Media and its Effect on Improving the Quality of Student	(Hasanah Lubis et al., 2023)	To discuss strategies for using learning media in education, in order to improve the quality of	literature review	Learning media is defined as a tool that can channel information/learning messages between sources and recipients,	From this literature review, it can be concluded that the use of appropriate and relevant learning media has a positive impact on

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	Learning Outcomes		student learning outcomes.		for example teachers, materials, tools, or activities.	improving the quality of student learning outcomes. Learning media is not merely a supplement, but rather a strategic tool that, when tailored to the material, student characteristics, and learning context, will help students better understand the material, engage actively in the learning process, and ultimately achieve higher learning outcomes.
15	Exploring student engagement in technology-based education in relation to gamification, online/distance learning, and other factors: A systematic literature review	(Balalle, 2024)	Explains how student engagement takes place in technology-based education, particularly through elements such as gamification, online/distance learning, and other influencing factors.	systematic literature review (SLR)	Gamification has proven to be an effective approach to increasing student engagement: for example, the use of elements such as challenges, leaderboards, badges can encourage motivation, attention, collaboration, and communication.	This article concludes that student engagement in technology-based education is a complex and multidimensional phenomenon. The use of technology, gamification, and online/distance learning have great potential to increase student engagement – but their success depends heavily on instructional design, interaction quality, technology readiness, and the institutional/student context.

The results of this systematic review indicate that the integration of philosophical educational theories with digital learning practices yields various significant patterns of interrelationships. Based on an analysis of empirical and theoretical findings, these theories can be categorized into three broad groups: (1) Theories that emphasize direct learning experiences (Pragmatism and Constructivism); (2) Theories that emphasize the individual and freedom to learn (Humanism and Existentialism); and (3) Theories that emphasize ethics and social responsibility (Idealism, Critical Theory, and Pancasila). These three groups form a conceptual framework that explains how philosophical values can guide the development of digital education to maintain a humanitarian orientation.

Key findings indicate that theories emphasizing hands-on experience, such as pragmatism and constructivism, are highly compatible with immersive technologies (VR/AR), Project-Based Learning (PjBL), and online collaborative platforms. This study demonstrates that technology-facilitated project-based learning enhances critical thinking and collaboration skills, consistent with the pragmatist principle of "learning by doing." (Zhang et al., 2024).

Meanwhile, the study found that the integration of digital tools in constructivist learning increased student engagement, exploration, and reflection through collaborative activities (Aoonlamai & Kwangmuang, 2025). However, several studies warn that the application of this theory fails when teachers lack adequate pedagogical preparation or when technology is used without a clear philosophical design. This results in procedural and superficial learning, rather than the depth idealized by constructivism.

Thus, the synthesis suggests that meaningful digital experiences require alignment between technology design and learning philosophy. When technology is viewed solely as a tool for efficiency, rather than as a space for reflective experience, philosophical learning goals are not achieved. This group of theories emphasizes the value of humanity, autonomy, and individual freedom in digital learning processes. Digital education technologies provide many opportunities to satisfy the need for autonomy, while they pose the greatest challenge to the need for relatedness (Salikhova et al., 2020).

The humanistic approach positions technology as a means to maximize human potential, not replace it.) Adaptive AI is able to support self-directed learning and increase students' intrinsic motivation by adapting content based on personal learning styles. However, this personalized approach carries a new risk: personalized learning often reinforces the digital divide students with high digital access and literacy gain more advantages than students from less advantaged backgrounds (Ismail et al., 2023; Ure-de-Oliveira & Bonilla-Algovia, 2025). From an existentialist perspective, reliance on AI has the potential to diminish students' self-reflection and existential freedom. When algorithms determine the

direction and pace of learning, the educational process loses its meaning as a personal journey of self-discovery. As Watanabe emphasized, the use of intelligent systems like ChatGPT "threatens student maturity," as they render individuals passive to the thought process and rely on machines to shape intellectual awareness (Watanabe, 2024).

Thus, the synthesis confirms a key paradox: the more sophisticated AI-based personalized systems become, the greater the risk of dehumanizing the learning process. Therefore, integrating humanism and digital ethics is key to keeping technology under the control of human values (Coeckelbergh, 2024).

The ethical dimension is a major focus of recent research, particularly those related to Digital Humanism and social justice. Prem emphasizes that technology is not neutral; it reflects underlying social values and interests (Prem, 2024). Therefore, digital education needs to instill critical awareness of algorithmic bias, data privacy, and the commercialization of education.

Research emphasizes the need for a comprehensive and sustainable AI ethics education system to anticipate the negative impacts of AI implementation in the educational environment (Xu et al., 2025). Emphasizing that the integration of AI in education must be built on the principles of social responsibility, fairness, transparency, and inclusivity so that technological innovation does not ignore security values (Holmes et al., 2022).

In the Indonesian context, the values of Pancasila serve as a moral and philosophical source to ensure that digital transformation remains grounded in humanity, solidarity, and social justice. Thus, local philosophies such as Pancasila can serve as a moral framework for digital praxis, integrating the values of humanism, social responsibility, and a moral orientation toward collective well-being. The philosophy of digital education does not seek uniformity, but rather seeks a balance between technological efficiency, individual freedom, and social justice. They emphasize that the use of technology in education must remain grounded in humanist values, so that digital progress does not eliminate the human dimension and moral responsibility in the teaching and learning process (Reski et al., 2024).

Overall, the SLR results indicate that integrating philosophical theories of education into digital learning practices is crucial for maintaining a values-oriented educational direction. Pragmatism and constructivism emphasize the importance of active learning experiences, humanism and existentialism emphasize individual freedom, while idealism, critical theory, and Pancasila emphasize social responsibility and public morality.

Thus, future digital education needs to be built on a philosophical synthesis that positions technology not as a determinant of educational direction, but as a tool to strengthen technological humanity that:

1. Facilitating reflective and meaningful learning experiences,
2. Respecting individual freedom and diversity,
3. Maintaining social justice and ethical responsibility in the digital age

#### **D. Conclusions**

The results of this systematic review confirm that integrating educational philosophy theory with digital learning practices is a crucial foundation for maintaining a humanitarian-oriented education amidst the rapid technological advancement. The synthesis shows that three major groups of philosophical theories pragmatism and constructivism; humanism and existentialism; and idealism, critical theory, and Pancasila provide complementary conceptual frameworks for formulating meaningful digital education. Theories that emphasize direct experience, such as pragmatism and constructivism, have proven to be compatible with the use of immersive technologies (VR/AR) and project-based learning, which encourage active, collaborative, and reflective learning. However, their successful implementation depends on the teacher's pedagogical preparedness and learning design based on philosophical values, not just technical efficiency. Meanwhile, theories of humanism and existentialism emphasize the importance of individual freedom, learning autonomy, and self-reflection in the era of artificial intelligence. While adaptive technology enhances motivation and personalization, it also poses the risk of dehumanization and the digital divide. Therefore, the application of digital ethics and humanitarian values is a primary prerequisite for equitable and inclusive education. In the social realm, critical theory, idealism, and Pancasila emphasize the need for moral responsibility, critical awareness, and social justice in digital transformation. Education should not be subject to the logic of commercialization and algorithmic bias, but rather should favor solidarity and the common good. Therefore, future digital education needs to be developed through a philosophical synthesis that positions technology as a tool to strengthen humanity. Further research can examine how the application of these philosophical principles is realized in curriculum design, digital pedagogy, and sustainable education policies.

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