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Humanistic-Digital Curriculum: The Answer to the Challenge of Employability Skills for Vocational School Graduates in the Era of Society 5.0

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Abstract
The Society 5.0 era demands that the education sector produce human resources who are not only digitally literate but also possess a humanistic character and the ability to adapt to social changes and industrial needs. Vocational high school (SMK) graduates in Indonesia still face a competency gap with the demands of the world of work, especially in terms of employability skills such as creativity, communication, collaboration, and problem solving. This study aims to examine the potential of humanistic-digital curriculum innovation as an alternative approach to improving the employability skills of SMK graduates in the Society 5.0 era. The method used is a Systematic Literature Review (SLR) by examining scientific articles indexed by SINTA, Garuda, and Google Scholar in the 2020–2025 period. The results of the study show that the humanistic-digital curriculum has strategic potential in improving employability skills through the strengthening of soft skills based on humanistic learning, the integration of literacy and digital competencies relevant to industry needs, and the application of collaborative, reflective, and digital project-based learning. Although its implementation still faces structural obstacles, the humanistic-digital curriculum can be an innovative alternative in preparing vocational school graduates who are more adaptive, collaborative, and competitive in facing the dynamics of the world of work in the Society 5.0 era.

Keywords: curriculum innovation, digital humanism, employability skills, vocational high schools, society 5.0

INTRODUCTION

Society 5.0 is a concept of a super-smart society that integrates physical and digital spaces to solve various social problems. This concept was first introduced by the Japanese government in response to the Fourth Industrial Revolution. In this era, humans are required not only to master technology but also to possess humanistic values such as empathy, collaboration, and social responsibility (Fukuyama, 2018). Education is the sector most affectCed because it must produce human resources who are able to think critically, creatively, and with character in facing global challenges. Therefore, the learning paradigm in the Society 5.0 era no longer focuses on knowledge transfer, but on shaping humans who are adaptive to technological changes while also having a humanistic spirit.

Vocational high schools (Sekolah Menengah Kejuruan/SMK), as institutions that focus on preparing skilled workers, have a responsibility to adapt to the demands of the world of work in the era of Society 5.0. Based on Law Number 20 of 2003 concerning the National Education System, Article 15, vocational education is secondary education that prepares students primarily for work in specific fields. However, the facts show that SMK graduates in Indonesia still face major challenges in terms of work readiness. Data from the Central Statistics Agency (Badan Pusat Statistik/BPS) in 2024 shows that the number of

unemployed people among SMK graduates reached 1,621,672 people in February and increased to 1,840,162 people in August 2024. This high unemployment rate among vocational school graduates indicates a mismatch between the competencies of graduates and the needs of the world of work, particularly in terms of the non-technical aspects required in the modern work environment. A literature review by Sulistyanto et al. (2021) also shows that the competencies required in the labor market of the Industrial Revolution 4.0 era are not only hard skills but also soft skills such as communication, collaboration, and problem-solving, a gap that has not been fully addressed by the current vocational education system.

According to Yorke (2006), employability skills are a set of general skills that enable a person to obtain, maintain, and develop employment, including critical thinking, communication, collaboration, leadership, and creativity. Research by Bhakti and Ardiningrum (2024) on 12th-grade vocational school students in Banjarnegara shows that only 47% of students are in the high category for employability skills, 51% are in the medium category, and 2% are in the low category. These results indicate that there is still a large group of students who have not achieved optimal mastery of employability skills in aspects such as communication and collaboration. This condition highlights the importance of learning innovations that can balance technical skill mastery and soft skills strengthening.

On the other hand, the current vocational school curriculum is still dominated by theory-based learning and is not yet fully responsive to developments in digital technology. A study by Sumardi et al. (2023) shows that the ability to digitize teaching materials, media, and learning evaluations by vocational school teachers still needs to be improved, reflecting the challenges of effectively integrating technology into the vocational learning process. As a result, students lack experience in technology-based projects that can hone their creativity and problem-solving skills. This creates a skill gap between what is taught in school and the real needs of industry, especially in the areas of digital communication, data literacy, and online collaboration.

A number of recent studies also show that the development of an adaptive vocational curriculum in the Society 5.0 era still faces various obstacles, ranging from teacher readiness to digital infrastructure. The literature review Challenges in Preparing an Adaptive Vocational Curriculum in the Society 5.0 Era by Samlawi and Norviana (2025), notes that although attention to the adaptation of vocational curricula has increased, their implementation remains limited. Similarly, the article Evaluation of Vocational Education in the Era of the Industrial Revolution 4.0 and Society 5.0 by Wulandari et al. (2024) emphasizes that although the link and match program has strengthened the relationship between schools and industry, students' digital literacy and soft skills still need to be strengthened.

Thus, curriculum innovation is needed that is not only oriented towards technological aspects, but also instills human values as the basis for character building in students. The concept of a humanistic-digital curriculum is a strategic solution that combines technological literacy with a humanistic approach in the learning process. Through this curriculum, it is hoped that vocational school graduates will not only be technically competent, but also possess strong employability skills to face the challenges of the world of work in the era of Society 5.0.

METHOD

The method used in this study was a Systematic Literature Review (SLR). This method was carried out by identifying, reviewing, evaluating, and interpreting all available research. Through this method, researchers conducted a structured review and identification using journals indexed by SINTA, Garuda, and Google Scholar. The keywords used to search for relevant articles included humanistic curriculum innovation, digital curriculum, employability skills, vocational school graduates, and competencies in the era of society 5.0. Only articles published between 2020 and 2025 were used.

Next, the researchers grouped the articles relevant to the research title and keywords used. The metadata of these articles were tabulated in a table that included the author's name, title, year of publication, type of research, and research results. In the next stage, the researcher conducted an in-depth synthesis of the articles, especially regarding the research results presented in the discussion and conclusion sections. In the final part of the study, the researcher compared the findings presented in the articles and formulated conclusions.

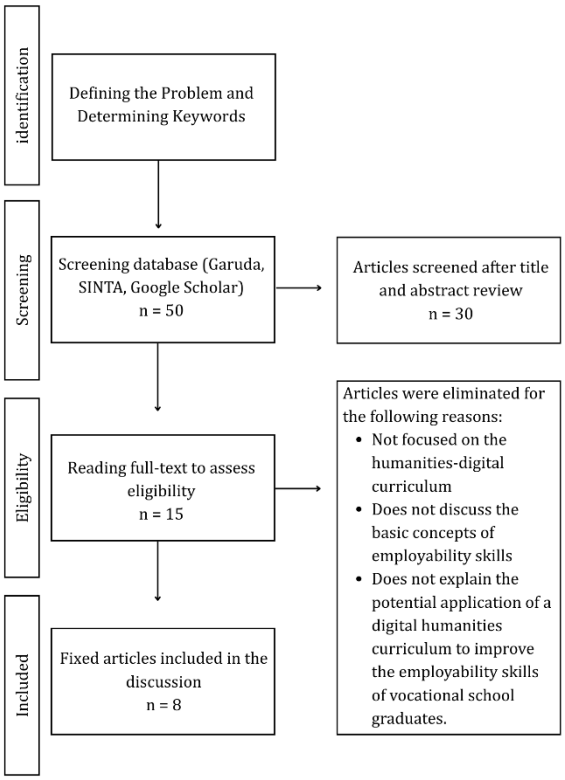

Figure 1.Prisma Flow Diagram

RESULTS AND DISCUSSION

The Concept of Employability Skills and Their Importance for Vocational School Graduates

Employability skills are a set of non-technical skills that enable a person to work effectively in various work contexts. Rahmawati et al. in (Mulifah et.al, 2024) explain that employability skills include interpersonal, managerial, and adaptability skills that support an individual's success in entering a competitive job market. Furthermore, Mulifah et al. (2024) emphasize that education plays a fundamental role in the development of employability, as the learning process enables individuals to develop communication skills, teamwork, problem-solving abilities, and managerial competencies. In line with this, Iyer & Dave in (Fidiah et al., 2022) show that high employability can help increase an individual's chances of obtaining employment, making these skills an important factor in determining an individual's competitiveness in the modern job market.

The paradigm shift in the world of work in the Society 5.0 era requires vocational school graduates to not only excel in technical skills but also possess employability skills, including digital literacy, digital communication, collaboration, flexibility, and the ability to adapt to technology. Research by Syawalia et al. (2025) shows that digital literacy and employability skills have a positive and significant influence on the work readiness of vocational school students in Central Jakarta. Similar findings were shown by Areisy & Sudira (2022), who found that although vocational school students are technically competent, non-technical aspects such as communication, problem solving, and self-management are still at a lower level than technical skills. This condition emphasizes that soft skills and digital literacy are no longer complementary, but rather a primary requirement for vocational school graduates to be able to compete in an increasingly digital and collaborative job market, making the integration of digital aspects and soft skills in the vocational curriculum increasingly relevant in the Society 5.0 era.

Humanistic-Digital Curriculum Concept

According to Eka et al. (2025), the humanistic curriculum was developed by humanistic education

scholars such as John Dewey (progressive education) and J. J. Rousseau (romantic education), based on the concept of personalized education. This educational approach positions students as the central subjects of learning. Humanistic educators adhere to the Gestalt perspective, which views individuals or children as holistic beings. Therefore, education is directed toward developing the whole person, not only in terms of physical and intellectual aspects, but also social and affective dimensions, including emotions, attitudes, feelings, and values.

On the other hand, according to Harianto et .al (2023), a digital curriculum is the transformation of the traditional curriculum into a "digital education curriculum" that integrates technology into the learning process, including teaching methods, learning materials, and assessment. This integration enables access to online resources, supports both independent and collaborative learning, and provides interactive and flexible learning experiences for students.

The digital humanities curriculum emerged from a combination of both approaches. This curriculum combines the principles of humanities education with the strengthening of digital technology. The integration of humanities and digital curricula allows learning to remain oriented towards the needs, interests, and development of individual students. At the same time, it expands learning opportunities through technology. According to Sulistyowati and Asriati (2024), the use of technology in the classroom learning process plays a role in improving learning effectiveness and encouraging active student engagement in the context of learning in the digital age. The Humanist-Digital curriculum creates a learning process that is humane as well as adaptive, innovative, and relevant to the demands of the times.

A curriculum that integrates humanistic and digital approaches has proven to be important for vocational education because it significantly improves digital competence and employability skills (Syawalia et al., 2025). The humanistic approach ensures that learning is centered on students so that they are more motivated, focused, and develop according to their talents and interests. Meanwhile, the use of digital technology supports the mastery of skills relevant to modern industries, enriches learning resources, and facilitates project-based and simulation-based learning (Khoirunnisa et al., 2025). Through the combination of both, the humanistic-digital curriculum not only equips vocational school students with technical skills, but also has the potential to foster creativity, communication, and critical thinking skills, which are key requirements in the Society 5.0 era. Thus, this curriculum is believed to be able to improve the readiness of vocational school graduates to enter the workforce in a more adaptive and competitive manner.

The Potential of Humanistic-Digital Curriculum in Improving Employability Skills

The current vocational school curriculum faces various challenges that directly impact the low *employability skills* of graduates. Based on research findings, the primary issue lies in the imbalance between technical and non-technical skills, despite the fact that the world of work in the Society 5.0 era requires both to work in tandem. Research by Areisy and Sudira (2022) confirms that although vocational school students demonstrate good technical competence, essential skills such as communication, problem-solving, self-management, and collaboration are still underdeveloped. This situation is further reinforced by the findings of Syawalia et al. (2025), which indicate that digital literacy, the primary foundation for work in the modern industrial world, is still not optimally mastered by students, thereby affecting their work readiness. This condition shows a serious gap between industry demands and graduate competencies, the impact of learning that still relies heavily on theory, minimal collaborative practice, and a lack of technology integration in the learning process.

On the other hand, systemic challenges are also evident in teachers' limited adaptation to technology and innovative learning. Research by Riyanda et al. (2025) and Wahyuni et al. (2022) indicates that the limited digital pedagogical competencies of vocational school teachers have an impact on the suboptimal development of students' soft skills. In addition, the research findings show that industrial work practices have a significant effect on students' employability skills, but the quality of work experience obtained is still in the adequate category and is not yet fully optimal in shaping adaptive, collaborative, and problem-solving skills (Sifa et al., 2022). This condition confirms that improving the employability skills of vocational school students cannot rely solely on mastery of technical skills and industrial experience, but requires strengthening the curriculum that integrates a humanistic approach and the contextual use of digital technology as an effort to bridge the gap between learning at school and the demands of the world

of work.

Considering these challenges, the humanistic-digital curriculum emerges as an approach with great potential to address the current needs of vocational education. The humanistic approach places students at the centre of learning, providing space for the emotional, social, and moral development of students. According to Widayanthi, 2024 if implemented in vocational schools, the humanistic-digital curriculum approach can improve learning motivation, interpersonal relationships, and self-reflection skills, which have been neglected in technical skills-based curricula. Meanwhile, the digital approach provides a broader, more flexible, interactive learning space that is in line with modern industrial practices. The integration of technology in vocational education enables the use of digital simulations, personalised learning, and the development of technology-based collaboration that encourages student engagement and responsiveness to the dynamics of technological developments (Widayanthi, 2024).

The potential of a humanistic-digital curriculum becomes even stronger when the two approaches are combined. This curriculum not only uses technology as a tool but also as a medium to deepen interaction, enrich learning experiences, and foster creativity and critical thinking. Digital project-based learning, for example, allows students to work in teams, manage conflicts, make decisions, and solve problems collaboratively—competencies that are highly sought after by industry. This potential is also found in the research by Suprianto et al. (2024), which evaluated the implementation of digital-based Project-Based Learning (PjBL) in vocational schools. The results showed that the learning model significantly improved students' *soft skills*, such as communication, teamwork, responsibility, and problem-solving abilities.

In addition, this curriculum also has great potential to strengthen *the link and match* between schools and industry. The use of digital technology opens up opportunities for project-based collaboration with industry, the use of industrial simulation platforms, and digital portfolio-based assessment. This allows students to gain more realistic work experience, even though the facilities or industrial practices in the field are not yet optimal. Furthermore, Swastika's (2022) research findings show that digital literacy has a positive and significant relationship with the career adaptability of vocational school students. This proves that digital literacy skills play an important role in improving students' readiness to adapt to the demands of the world of work in the era of industry 4.0 and society 5.0, especially in facing the transition phase from school to the world of work.

Overall, the current challenges in the vocational school curriculum, characterised by skill gaps, weak digital integration, and a lack of humanistic learning, can be addressed through the implementation of a humanistic-digital curriculum. This approach has the potential to improve students' *employability skills* through more relevant, collaborative, adaptive, and holistic human development-oriented learning. Thus, the humanistic-digital curriculum can be a strategic alternative to prepare vocational school graduates who are better equipped to face the complexities and dynamic demands of the world of work in the era of Society 5.0.

Enabling and inhibiting factors in the Implementation of the Humanistic-Digital Curriculum

Enabling Factors

Although the implementation of the humanistic-digital curriculum in Indonesia still faces various structural limitations, there are at least four supporting factors that indicate a positive transformation in vocational education. These enabling factors include: (1) the *M*erdeka Belajar (Freedom of Learning) policy offers greater curricular flexibility and opportunities for differentiated instruction, thereby reinforcing the humanistic principle that positions students as the core of the learning process (Hamdani, 2025); (2) The development of digital infrastructure also strengthens the integration of technology in learning; the APJII (2023) report shows an increase in internet access and digital devices that enable the use of adaptive and collaborative learning platforms; (3) Increasing industry involvement through link and match programs, internships, and digital projects also encourages the development of students' employability skills (Andayani. F, 2025); (4) The presence of young teachers with more mature TPACK competencies is also an important catalyst for the adoption of digital-humanistic innovations in the classroom (Silvester et al, 2024). Thus, these factors provide a strong foundation for implementing the

humanistic-digital curriculum, although improvements in quality and equity are still needed.

Inhibitory Factors

Although the Humanistic-Digital Curriculum has great potential, there are a number of real obstacles that need to be considered, namely; (1) The quality of teacher training is uneven, especially for senior teachers who are unfamiliar with ICT and digital media due to factors such as age, conventional pedagogical habits, and limited school support in terms of mentoring and strengthening technological competencies (Fadhillah et al., 2025); (2) Based on educational journal studies, it is estimated that around 30-40% of schools in Indonesia, especially in remote or underdeveloped areas, do not yet have adequate internet access and digital facilities, resulting in a digital competency gap between students and teachers, as well as a lack of technology-based learning media (Fitria et al., 2023; Sofiana et al., 2025). As a result, the implementation of the digital curriculum cannot run optimally and is only realized in a small number of schools, so that the implementation of learning digitalization is still uneven; (3) The lack of a culture of collaboration in schools, both between teachers and with external parties such as industry. In fact, collaboration and the sharing of practices are necessary for teachers to support one another in adopting new methods and using digital resources. Without a collaborative culture, teachers tend to work alone, making it difficult for innovation to spread widely. The development of teachers' digital competencies is more effective when accompanied by joint training, mentoring, and collaborative learning (Aulia et al., 2025); and (4) The lack of industry support in the form of partnerships, technology provision, and training is a major challenge for vocational programs that have not yet established cooperation. The industrial world often does not provide the internships, technological updates, or curriculum collaboration that vocational schools need to adapt their learning to the latest digital developments. (Agustian et al., 2024) emphasize the weak involvement of industry in internships, technological support, and curriculum, which creates a gap between the competencies of vocational school graduates and the needs of the world of work. Without strong collaboration, schools find it difficult to adapt their curricula to the needs of digital-based employability, including digital and soft skills (Kholifah et al., 2025). As a result, vocational school graduates are often ill-prepared to face the demands of the digital age despite being equipped with basic theory and skills. In fact, the successful integration of technology into the curriculum depends heavily on the synergy between schools, teachers, and industry.

CONCLUSION

Vocational school graduates still face gaps in non-technical skills and digital literacy due to learning that is not yet fully integrated with the demands of the modern workplace. Limited digital pedagogical competencies among teachers and suboptimal quality of industrial work practices also contribute to the low level of development of students' adaptive, collaborative, and problem-solving skills, despite their relatively good technical skills.

The humanistic-digital curriculum has strategic potential in enhancing employability skills by strengthening of soft skills based on humanistic learning, integrating literacy and digital competencies relevant to industry, and promoting collaborative, reflective, and digital project-based learning that fosters students' adaptive readiness. Thus, the humanistic-digital curriculum can be an innovative alternative in preparing vocational school graduates who are better equipped, adaptable, and competitive in facing the dynamics of the world of work in the era of Society 5.0.

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