

Empowering Tech-Savvy Youth Education in Society 5.0: Transforming Learning for the Digital Future

Erni Murniarti¹, Bintang R. Simbolon², Reza Yuridian Purwoko³, Endang
Fatmawati⁴, Hariyanto⁵

^{1,2}Universitas Kristen Indonesia, Jakarta, Indonesia

³President University, Bekasi, Indonesia

⁴Universitas Diponegoro, Semarang, Indonesia

⁵STABN Raden Wijaya Wonogiri, Indonesia

Email: erni.murniarti@uki.ac.id

Abstract

Dynamic changes in the digital era demand an educational approach that is responsive to student needs and the demands of an increasingly connected society. Lack of student involvement can be an obstacle to achieving learning goals that are holistic and relevant to technological developments. Therefore, there is an urgency to understand and optimize youth participation in Society 5.0 through innovative education. This research aims to investigate the positive impact of innovative education on youth participation in Society 5.0. Through a descriptive qualitative approach, this research uses data from previous research and studies that are still relevant to the phenomenon being observed. By understanding the role of teachers, innovative learning models, and student skill development, this research is aimed at illustrating how innovative education can increase student engagement and prepare them to face a dynamic future. By analyzing the role of teachers, innovative learning models, and student skills development in the context of Society 5.0, this research finds that innovative education has a significant positive impact on youth participation. This emphasizes the importance of the role of teachers as agents of change in adopting innovative approaches, to create a learning environment that motivates and supports student creativity. The integration of technology, particularly through a project-based approach and the use of virtual reality, has proven effective in increasing student engagement and preparing them to face future challenges.

Keywords: Empowerment, Education, Society 5.0.

A. INTRODUCTION

In the era of Society 5.0 which is characterized by the deep integration of technology in everyday life, education has a crucial role in shaping young individuals to become main actors of digital transformation. Dramatic changes in the technology landscape, including the advent of artificial intelligence, the Internet of Things (IoT), and virtual reality, have changed the way we work, communicate, and learn. Therefore, it is important to ensure that young people not only keep up with these changes but also have the deep understanding and skills necessary to compete and contribute to an increasingly connected society (Mourtzis et al., 2022).

Education today is faced with a big challenge to bridge the gap between technological developments and traditional curriculum. Understanding technology is no longer just optional, but rather a necessity to ensure that future generations can deal with and utilize technology wisely. Therefore, there is a need for significant

updates in learning approaches to suit the needs of this digital future. This reminds us that education is not just about transferring knowledge, but also about empowering individuals to continue learning, adapting, and innovating amidst rapid change (Hadgraft & Kolmos, 2020).

Rapid technological developments not only have an impact on work and the economy but also give rise to new paradigms in social and cultural interactions. Society 5.0 demands close collaboration between humans and technology, creating an integrated ecosystem where innovation is driven by a deep understanding of technology. In the educational context, the challenge lies in integrating technology as a learning tool that not only improves understanding of the material but also forms adaptation skills to continuous technological developments (Zizic et al., 2022).

In this condition, it needs to be emphasized that conventional curriculum and teaching methods may no longer be adequate to meet future educational needs. Young people need to be trained in learning approaches that combine technology, creativity, and critical thinking to be able to deal with unexpected changes and create innovative solutions. Therefore, this research is not only an attempt to understand the role of technology in improving young people's education but also to explore learning models that are responsive to social and technological dynamics. Thus, the hope is that education will not only make individuals technologically literate but also equip them with skills that are relevant and needed in this era of Society 5.0.

B. LITERATURE REVIEW

1. Empowerment

Empowerment refers to each person's ability, focusing on vulnerable and weak groups so that they have freedom, meaning not only freedom to express opinions but also freedom from hunger, ignorance, and pain. Empowerment reaches productive sources that enable them to increase their income, obtain necessary goods, and participate in the development context of decisions that affect them (Kabadayi et al., 2023).

The concept of empowerment for Out-of-School Education in Indonesia was first developed by Kindervatter, stating that "Empowerment is the process of providing strength or power in the form of education and aims to raise awareness and sensitivity of students towards economic, social and political development. So that in the end, they can improve and increase their status in society" (Anggadwita et al., 2021). According to Ambar Teguh, the authorization process refers to a concrete action that is carried out in stages to change the situation of disadvantaged people, including knowledge, attitudes, and practices to master the mastery of knowledge, conscious behavior, and good skills. Empowerment is an effort to build power by encouraging, motivating, and raising awareness of one's potential and seeking to develop and strengthen one's potential (Ssosse et al., 2021).

According to Ganjar Kartasasmita, empowerment can be seen from several sides, namely:

- a. How to create an atmosphere or climate that supports the potential to be developed, meaning that every community has the potential that can be developed.
- b. Strengthening existing potential involves concrete steps to provide various inputs and open access to various types of access as opportunities to be empowered (Surya et al., 2020).

Therefore, empowerment is both a process and a goal. As a process, empowerment is a series of activities to strengthen the power or empowerment of weak groups in society, including individuals who experience poverty problems. As a goal, empowerment refers to the conditions or results of social change, namely people who can fulfill their physical, economic, and social needs, such as self-confidence; as well as conveying aspirations, having a livelihood, participating in social activities, and being independent in carrying out their life tasks (Coy et al., 2021).

2. Education

Sagala said that education is an integrated, explanatory, and predictive system of concepts about educational events. There are educational theories that act as assumptions of educational thinking and there are those that act as definitions explaining meaning. The main assumption of education is that education is actual, meaning that education starts from the actual conditions of the individual learning and the learning environment, education is normative, meaning that education is aimed at achieving good things; and education is a process of achieving goals, meaning education is in the form of a series of activities starting from actual conditions and the individual learning, aimed at the expected individual achievement (As-Shodiq, 2020).

This educational theory is divided into four, namely classical education, personal education, educational technology, and interactional education. These four educational theories will produce their own or different curriculum designs that will create a society that meets its goals (Ionescu et al., 2020). According to Nana S. Sukmadinata, he put forward 4 (four) educational theories, namely:

a. Classical Education

Classical education theory is based on classical philosophy, such as Perennialism, Essentialism, and Existentialism, and views education as an effort to maintain, preserve, and transmit cultural heritage. This theory emphasizes the role of educational content rather than process. Educational content or material is taken from the treasures of knowledge discovered and developed by past experts which have been arranged logically and systematically. In practice, educators have a large and more dominant role, while students have a passive role, as recipients of information and tasks from educators (Murphy et al., 2023).

b. Personal Education

This educational theory starts from the assumption that from birth children have certain potentials. Education must be able to develop the potential of students based on the needs and interests of students. In this case, students are the main actors in education, while educators only occupy a second position, playing more of a role as guides, motivators, facilitators, and servants of students (Baker & Irwin, 2021).

Personal education theory is a source for the development of a humanist curriculum model. namely, a curriculum model that aims to expand self-awareness and reduce estrangement and alienation from the environment and the process of self-actualization. The humanist curriculum is a reaction to education that places more emphasis on intellectual aspects (academic subject curriculum) (Robbins, 2021).

c. Technological Education

Educational technology is an educational concept that has similarities with classical education regarding the role of education in conveying information. However, there are differences between the two. In educational technology, the priority is the formation and mastery of practical competencies or abilities, not the preservation and maintenance of old culture (De la Torre et al., 2021).

In this educational theory, educational content is selected by a team of experts in special fields, in the form of objective data and skills that lead to vocational abilities. The content is prepared in the form of a program design or teaching design and delivered using electronic media and students learn individually (Lytvyn et al., 2020).

Students attempt to master large amounts of material and activity patterns efficiently without reflection. The new skills are immediately used in society. The teacher functions as a learning director, with more management tasks than delivering and deepening the material (Rivera-Vargas et al., 2021).

d. Interactional education

Interactional education is an educational concept that starts from thinking about humans as social creatures who always interact and collaborate with other humans. Education as a form of life also has cooperation and interaction at its core. In interactional education, it emphasizes two-party interactions from teachers to students and from students to teachers (Wolff & Ehrström, 2020).

More than that, in this educational theory, interaction also occurs between students and learning material and the environment, between human thinking and the environment. Interaction occurs through various forms of dialogue. In interactional education, learning is more than just learning facts. Students carry out an experimental understanding of these facts, provide a comprehensive interpretation, and understand them in the context of life. The philosophy that underlies interactional education is the philosophy of social reconstruction (Teo, 2019).

3. Society 5.0

The Society 5.0 era was first introduced by Japan in 2019 as a result of the disruption caused by the 4.0 revolution. In general, the Society 5.0 era directs us to use advanced technology to facilitate human activities. The concept of society 5.0 is a refinement of previous generations, namely in the 1.0 era humans were still in the era of hunting and familiarity with writing, in the 2.0 era humans began to understand farming, in the 3.0 era humans began to recognize industry and use machines for daily activities (Narvaez Rojas et al., 2021); and in the 4.0 era, humans began to recognize computer technology and the internet and use it for everyday life, then the Society 5.0 era was created by Japan with the concept of "Must humanize humans with technology." Industrial Revolution 4.0 and Society 5.0 are not that different. The era of Society 5.0 is more directed toward using and maximizing the use of technology in the era of the Industrial Revolution 4.0 (Li, 2020).

The practice of the Industrial Revolution 4.0 is that humans collect information through information networks and then analyze it by humans. Meanwhile, in the era of society 5.0, the practice is that society, objects, systems, and others are connected virtually and digested by Artificial Intelligence so that the results obtained are optimal, capable of exceeding human capabilities, and then given back to the real space. Society 5.0 era people are expected to be able to solve problems and challenges by utilizing advances born in the 4.0 era such as the Internet of Things, Artificial Intelligence, Big Data, and robots to help human life (Wang et al., 2024).

The challenge of the society 5.0 era is that we must be able to create a society that has technology-based human resources so that people living in this era must have a role in the digital era so that intelligent robots do not degrade the role of humans. Even though Indonesia is currently facing challenges in the industrial revolution 4.0, it must also prepare itself to face the challenges of the society 5.0 era (Tavares et al., 2022). Steps that can be taken are to improve the quality of people's human resources and increase their ability to maximize the use of technology. Efforts that can be made earlier are to improve infrastructure to improve and smooth the process of running the internet in Indonesia (Vahdat, 2022).

Preparations that can be made to improve the quality of human resources to welcome the era of Society 5.0 include:

- a. Keep up with the times well. Agencies or organizations that can keep up with the times can provide good services to the community. Parents or educators who educate children according to the times are more comfortable and prepare children to develop according to the times.
- b. Leadership or leadership. Good leadership by educators or parents can influence children to make progressive changes.
- c. Foreign language skills. Foreign language skills are very beneficial for someone to be able to connect more widely with foreign countries to welcome the era of society 5.0.
- d. Mastering IT, a person's ability to live in the era of society 5.0 is greatly helped by mastering IT. It should be noted that technological development has two

blades which, if you can utilize and master it for good things, can direct positive activities, and vice versa.

- e. Literacy skills. The most basic literacy skills that a person must have include numeracy literacy, language and literature literacy, scientific literacy, financial literacy, cultural and civic literacy, as well as information and technology literacy (Hysa et al., 2021).

Everyone needs to make preparations to improve the quality of human resources so that they can keep up with current developments so that they are not left behind and are not eroded by the times. Improving the quality of human resources so that you can live life according to the times easily. This is done so that a person can take advantage of the situation, especially parents or educators so that they can educate their children according to the times and prepare their children as the golden generation in the future (Sen & Bhattacharya, 2019).

C. METHOD

In this research, a descriptive qualitative approach is used to investigate the complex phenomena surrounding youth participation in Society 5.0 with a focus on the positive impact of innovative education. A qualitative approach was chosen because it allows researchers to gain an in-depth understanding of student experiences, the role of teachers, and the impact of innovative education at a more holistic level. The data used in this research comes from various research results and previous studies which are still relevant to the research objectives. By collecting data from related literature, this research seeks to build a strong foundation to support the empirical findings that will be found during the research process. After successfully collecting data, the next step is data processing to produce significant findings. The data collected will be processed carefully and systematically using qualitative analysis methods.

D. RESULT AND DISCUSSION

1. Educational Challenges in the Era of Society 5.0

Rampant digital transformation in various sectors of life, including education, has brought significant challenges in the era of Society 5.0. One of the biggest impacts of this transformation is a fundamental shift in the way we approach and deliver learning. The integration of technology in the classroom is not only a necessity but also a necessity to answer the demands of the times. This change creates a paradox between the speed of technological development and the readiness of educational institutions to keep up with that pace. In this context, a key challenge is ensuring that teachers and educational institutions can understand, adopt, and integrate technology in a way that has a positive impact on students' learning experiences.

The gap in technological knowledge among young people is an important focus in efforts to respond to educational challenges in the era of Society 5.0. Although many young people are familiar with the use of technological devices in everyday life, not all of them have a deep understanding of how to use this technology effectively and

productively. This gap creates inequality in young people's participation in digital society. There is a risk that certain groups will be left behind in accessing and exploiting the opportunities offered by technological developments, creating deeper divisions in society. Thus, there is a need for educational strategies that can overcome this gap and ensure that every individual has equal access to the opportunities generated by the technological revolution.

Paradigm changes in education are a crucial step to respond to the dynamics of Society 5.0. The old paradigm that focuses on the passive transfer of knowledge from teachers to students is no longer relevant in today's educational context. A more collaborative approach is needed, where students are not only recipients of information but also initiators of knowledge. This new paradigm emphasizes the development of critical skills, creativity, and problem-solving, which are essential foundations for competing in an increasingly connected and complex world. Therefore, an educational paradigm shift includes a deep transformation in the curriculum, teaching methods, and evaluation of learning outcomes to create a learning environment that is responsive to the demands of Society 5.0.

In facing the challenges of education in the era of Society 5.0, it is important to recognize that digital transformation not only affects the way we teach and learn but also changes the essence of education itself. Technological developments such as artificial intelligence and the Internet of Things (IoT) provide the potential to create personalized and adaptive learning experiences. However, along with the positive potential, there are also risks related to privacy, data security, and access gaps. Therefore, a real challenge is to find the right balance between the use of technology in education and the protection of students' ethical values and privacy. Education in the era of Society 5.0 must create an environment that not only prepares students with technology skills but also empowers them to think critically, responsibly, and ethically in using technology.

Another challenge that requires attention is creating learning approaches that are inclusive and consider diversity in student learning styles. Digital transformation can create new gaps if not all students can access and utilize technology effectively. Therefore, adjustments to the curriculum and teaching methods must take into account student diversity, both in terms of access to technology and learning styles. Education in the era of Society 5.0 must be able to overcome this disparity by providing the necessary support for students who may face difficulties in keeping up with technological developments. By addressing these challenges, education can become a key driving force in ensuring that every individual, regardless of background or condition, can exploit his or her full potential in an increasingly connected and technology-driven society.

2. Curriculum Update and Teaching Methods

In responding to the dynamics of Society 5.0, updating the curriculum and teaching methods is an urgent need. The integration of technology into the curriculum is a strategic step to create relevant and in-depth learning experiences. Therefore, it is

necessary to develop learning modules that integrate technology as a tool that enriches students' understanding of the subject matter. This step not only involves using the latest hardware and software but also includes training teachers to harness the full potential of technology in inspiring and motivating students. Technology integration is not only additional but must be implemented in depth so that it becomes an integral part of the learning process.

In addition, curriculum updates must include the development of adaptation skills as a primary focus. The curriculum must be designed to not only provide factual knowledge but also engage students in the development of the skills necessary to adapt to rapid technological change. This includes skills such as problem-solving, critical thinking, creativity, and collaboration. By incorporating adaptation skills into the curriculum, education can play an important role in preparing young people to face the challenges and opportunities in the era of Society 5.0. In addition, learning evaluations must place greater emphasis on measuring these skills, not just conceptual understanding, to create students who are ready to contribute to a dynamic society.

An active learning approach is an essential basis for curriculum renewal. Students are no longer passive recipients of information, but actors who are actively involved in the learning process. This approach involves the use of methods such as group discussions, collaborative projects, and problem-based learning. By integrating this approach, the curriculum can create learning experiences that are more meaningful and relevant to students' real lives. Additionally, an active learning approach can also help develop critical social, communication, and leadership skills to succeed in the hyper-connected and collaborative Society 5.0. Thus, updating the curriculum and teaching methods is an important foundation for ensuring that education can produce a generation that is ready to face and shape a dynamic digital future.

Apart from integrating technology and developing adaptation skills, curriculum updates and teaching methods also need to emphasize the importance of developing digital literacy. Digital literacy includes not only the technical ability to use devices and applications, but also understanding digital ethics, online safety, and the ability to critically evaluate information. In the context of the connected Society 5.0, digital literacy is an essential skill that must be embedded in every aspect of the curriculum. This includes cultivating awareness of the impact of technology on society, mental health, and environmental sustainability. Therefore, curriculum updates must integrate digital literacy learning as an integral part of every subject, giving students a strong foundation to operate safely and intelligently in a complex digital world.

Furthermore, in curriculum updates, it is important to consider project-based learning approaches as an effective strategy for combining theory with practice. By encouraging students to engage in practical projects, the curriculum can provide hands-on experiences that allow students to apply their knowledge in real contexts. This approach also encourages collaboration, problem-solving, and creativity, skills that are critical in Society 5.0. By providing opportunities for students to design and

implement projects that are relevant to technological developments, education can form individuals who are not only technologically literate but also able to face real-world challenges with the creativity and courage to create innovative solutions.

3. Innovative Learning Models for the Digital Future

Project-based learning has emerged as an effective, innovative learning model to prepare students to face the challenges of Society 5.0. Engaging students in real projects allows them to apply their knowledge and skills in real-world contexts. In addition, project-based learning provides opportunities for the development of creative and problem-solving skills, as students are faced with tasks that demand critical thinking and innovative solutions. By designing and executing their projects, students not only deepen their understanding of the subject matter but also develop collaborative and communicative skills that are crucial in the ever-evolving digital age.

The use of virtual and augmented reality technology is an important aspect of creating deep and engaging learning experiences. This technology can take students into a near-real simulation, allowing them to experience abstract concepts in a more concrete context. By providing an immersive learning environment, learning becomes more fun and effective. For example, in science learning, students can "see" the inside of human organs or "visit" historical places through virtual reality. Utilizing this technology can also provide better access for students with diverse learning styles, ensuring that each individual can learn in a way that suits their needs and preferences.

Online collaboration and learning networks add a social and interactive dimension to innovative learning models. In a digital environment, students can collaborate with each other, even with people from other parts of the world, to complete assignments or projects. This collaboration not only broadens the scope of learning but also builds strong connections between students and teachers. Through online platforms, discussions and exchange of ideas become more dynamic, creating a learning environment that is more inclusive and open to a diversity of opinions. By enabling online collaboration and learning networks, this innovative learning model not only prepares students with technological knowledge but also shapes them into individuals who can contribute to digital society with mature social skills.

In the context of project-based learning, it is important to consider developing evaluations that support this model. Evaluation is not only limited to measuring the final results of the project but also includes an assessment of the student learning process during the implementation of the project. By focusing on formative assessment, teachers can provide constructive feedback to students throughout the learning process, allowing them to continually improve their performance. Additionally, the use of digital portfolios or online collaborative platforms can be an effective tool for recording and assessing student progress and encouraging reflection on their experiences on projects.

The use of virtual and augmented reality technologies, although they have great potential, also brings challenges related to accessibility and technological

infrastructure. Therefore, in implementing this technology in innovative learning models, it is important to ensure equal access for all students. Efforts to address access gaps and ensure that these technologies can be well integrated into the curriculum are critical aspects that must be addressed. In addition, further research and development in measuring the effectiveness of using virtual and augmented reality technology in learning contexts needs to continue to be carried out to identify the best methods and maximize their potential in supporting the achievement of learning goals. By overcoming these challenges, the use of virtual and augmented reality technology can provide immersive and high-impact learning experiences for students in the era of Society 5.0.

4. Empowering Teachers as Agents of Change

In facing the demands of change in the era of Society 5.0, developing teacher professionalism is at the core of educational transformation. Teachers must deeply understand changes in learning paradigms and technology to effectively guide students in an increasingly connected world. This requires a holistic approach to professional development, including ongoing training, participation in professional learning communities, and collaboration between teachers to share best practices. Teachers must be lifelong learners, ready to adapt their approach to the latest technological developments and research in the field of education.

The role of the teacher has undergone a significant transformation from transmitter of information to facilitator of active learning. Teachers are not only sources of knowledge but also mentors who guide students through a learning process that inspires creativity and critical thinking. In the context of Society 5.0, where access to information is so easy, teachers need to guide students to develop problem-solving, critical analysis, and collaboration skills. Therefore, teacher training must emphasize the development of these skills so that teachers can create a learning environment that supports the full development of each student's potential.

Increasing teachers' technological competence is key in ensuring that they can play a leading role in supporting students in the effective use of technology. This involves thorough training in the use and integration of technology in the curriculum, as well as understanding how to use digital tools to enhance the learning experience. Professional development programs for teachers should also include aspects of digital ethics and online safety, ensuring that teachers can guide students in using technology wisely. Increasing teachers' technological competence is not only about using the latest hardware and software but also about integrating technology in learning contexts which can provide significant added value to student development in the era of Society 5.0.

Apart from developing professionalism, the role of teachers as models and mentors is also a central aspect in empowering them as agents of change. Teachers are not only leaders in terms of academic knowledge, but also as social and ethical role models for students. Empowering teachers to be role models in facing moral and social challenges in the digital era is important to shaping student character. Therefore,

teacher training must cover in-depth aspects of ethics and social responsibility, equipping them with the skills to address moral issues that may arise in increasingly connected learning environments.

Increasing teacher competence in using technology does not only focus on using tools but also on developing learning content that is relevant to the digital era. Teachers need to be able to create a curriculum that stimulates students' critical thinking and creativity by utilizing technology as a learning tool. Integrating social media, technology-supported project-based learning, and using online platforms to support collaborative learning are some examples of ways teachers can utilize technology to achieve learning goals. Therefore, investment in teacher training and development that focuses on integrating technology with creativity in learning design can create teachers who can inspire and guide students toward success in the era of Society 5.0.

5. Positive Impact on Youth Participation in Society 5.0

Innovative learning approaches have a significant positive impact on youth participation in Society 5.0, particularly in the context of increasing student engagement. Learning models that emphasize interactivity, collaboration, and practical application provide a more interesting and relevant learning experience for students. Engaging students in projects and activities that focus on solving real problems sparks interest and intrinsic motivation, having a positive impact on their level of engagement. A learning process that is more dynamic and responsive to students' needs creates an environment where they feel valued, heard, and valued, leading to active participation in the educational process.

In the context of skills development, innovative learning approaches have a real positive impact on the development of soft skills. Skills such as creativity, effective communication, collaboration, and leadership are the main focus of this learning model. Collaborative projects, interactive discussions, and the use of technology as a learning tool create opportunities for students to hone these skills naturally. These soft skills are not only relevant for individual success in the academic world but are also the key to adapting and competing in society 5.0 which prioritizes teamwork, creativity, and effective communication. Thus, innovative education plays a role as the main pillar in preparing young people with the skills needed to face dynamic changes in the era of Society 5.0.

More than that, innovative education also has a positive impact on preparing young people to face a future full of challenges and uncertainty. Education that emphasizes adaptation skills, critical thinking, and problem-solving provides a solid foundation for students to face the rapid changes that may occur in the work environment and society. By instilling an entrepreneurial attitude and the ability to think innovatively, innovative education helps create a generation ready to face the complex challenges of Society 5.0. Therefore, education is not only a means of transferring knowledge but also a tool for forming character and preparing young people to become strong leaders in an era of ongoing change.

It is important to note that the positive impact of young people's participation in Society 5.0 is not only reflected in their academic achievements and individual skills but also their contributions to society as a whole. Innovative learning creates a foundation for the formation of young citizens who are not only technically competent but also have high social and ethical sensitivity. The collaboration and understanding of social involvement instilled through this learning model form individuals who care about society, can work together in diverse frameworks, and encourage positive change. Therefore, innovative education is not only about preparing individuals to achieve personal success but also about forming responsible leaders and contributors to create a better society.

Furthermore, innovative education makes a significant contribution to the formation of critical thinking and entrepreneurial attitudes in young people. With an emphasis on problem-solving, students are encouraged to see every challenge as an opportunity for innovation. This approach creates a proactive and creative attitude which becomes valuable capital in facing complex challenges in the era of Society 5.0. Thus, youth participation is not only limited to involvement in the formal education process but also illustrates their ability to face the world with a positive and solution attitude. In this context, innovative education can be considered a long-term investment in forming a generation that is competitive, resilient, and has a significant positive impact on shaping the future of society.

E. CONCLUSION

Innovative education plays an important role in shaping the positive participation of young people in Society 5.0. Innovative learning models, including project-based approaches, the use of technology, and teacher empowerment, have been proven to increase student engagement in the learning process. Through this approach, students not only develop conceptual understanding but also soft skills that are essential for success in an increasingly connected and collaborative era. Apart from that, innovative education also has a positive impact on developing students' adaptation and critical thinking skills. By focusing on developing skills relevant to the needs of Society 5.0, such as creativity, collaboration, and entrepreneurship, education helps prepare young people to face a future full of challenges and uncertainty. In conclusion, investment in innovative education is not only an investment in knowledge but also in the formation of students' character and ability to become positive leaders in this era of digital transformation. By actively involving students, strengthening the role of teachers as agents of change, and adopting innovative learning models, education can become a key driver for the positive participation of young people in this increasingly dynamic society.

REFERENCES

1. Anggadwita, G., Dana, L. P., Ramadani, V., & Ramadan, R. Y. (2021). Empowering Islamic boarding schools by applying the humane entrepreneurship approach: the

- case of Indonesia. *International Journal of Entrepreneurial Behavior & Research*, 27(6), 1580-1604.
2. As-Shodiq, M. J. F. (2020). Strategic Management of Islamic University in Integrating Science and Religion. *EDUKASI: Jurnal Pendidikan Islam (e-Journal)*, 8(1), 46-61.
 3. Baker, S., & Irwin, E. (2021). Disrupting the dominance of 'linear pathways': how institutional assumptions create 'stuck places' for refugee students' transitions into higher education. *Research Papers in Education*, 36(1), 75-95.
 4. Coy, D., Malekpour, S., Saeri, A. K., & Dargaville, R. (2021). Rethinking community empowerment in the energy transformation: A critical review of the definitions, drivers and outcomes. *Energy Research & Social Science*, 72, 101871.
 5. De la Torre, R., Onggo, B. S., Corlu, C. G., Nogal, M., & Juan, A. A. (2021). The role of simulation and serious games in teaching concepts on circular economy and sustainable energy. *Energies*, 14(4), 1138.
 6. Hadgraft, R. G., & Kolmos, A. (2020). Emerging learning environments in engineering education. *Australasian Journal of Engineering Education*, 25(1), 3-16.
 7. Hysa, B., Karasek, A., & Zdonek, I. (2021). Social media usage by different generations as a tool for sustainable tourism marketing in society 5.0 idea. *Sustainability*, 13(3), 1018.
 8. Ionescu, C. A., Paschia, L., Gudanescu Nicolau, N. L., Stanescu, S. G., Neacsu Stancescu, V. M., Coman, M. D., & Uzlau, M. C. (2020). Sustainability analysis of the e-learning education system during pandemic period—covid-19 in Romania. *Sustainability*, 12(21), 9030.
 9. Kabadayi, S., Livne-Tarandach, R., & Pirson, M. (2023). A dignity-vulnerability approach framework to maximize well-being outcomes by transformative service initiatives (TSIs). *Journal of Services Marketing*.
 10. Li, L. (2020). Education supply chain in the era of Industry 4.0. *Systems Research and Behavioral Science*, 37(4), 579-592.
 11. Lytvyn, A., Lytvyn, V., Rudenko, L., Pelekh, Y., Didenko, O., Muszkieta, R., & Żukow, W. (2020). Informatization of technical vocational schools: Theoretical foundations and practical approaches. *Education and Information Technologies*, 25, 583-609.
 12. Mourtzis, D., Angelopoulos, J., & Panopoulos, N. (2022). A Literature Review of the Challenges and Opportunities of the Transition from Industry 4.0 to Society 5.0. *Energies*, 15(17), 6276.
 13. Murphy, P. K., Ogata, T. M., & Schoute, E. C. (2023). "Valued" thinking in education: Liberating the narrative. *Educational Psychology Review*, 35(1), 35.
 14. Narvaez Rojas, C., Alomia Peñafiel, G. A., Loaiza Buitrago, D. F., & Tavera Romero, C. A. (2021). Society 5.0: A Japanese concept for a superintelligent society. *Sustainability*, 13(12), 6567.
 15. Rivera-Vargas, P., Anderson, T., & Cano, C. A. (2021). Exploring students' learning experience in online education: analysis and improvement proposals based on the

- case of a Spanish open learning university. *Educational Technology Research and Development*, 69(6), 3367-3389.
16. Robbins, B. D. (2021). The joyful life: An existential-humanistic approach to positive psychology in the time of a pandemic. *Frontiers in Psychology*, 12, 648600.
 17. Sen, K., & Bhattacharya, A. (2019). Attracting and managing talent, how are the top three hotel companies in India doing it?. *Worldwide Hospitality and Tourism Themes*, 11(4), 404-417.
 18. Ssosse, Q., Wagner, J., & Hopper, C. (2021). Assessing the impact of ESD: Methods, challenges, results. *Sustainability*, 13(5), 2854.
 19. Surya, B., Syafri, S., Hadijah, H., Baharuddin, B., Fitriyah, A. T., & Sakti, H. H. (2020). Management of slum-based urban farming and economic empowerment of the community of Makassar City, South Sulawesi, Indonesia. *Sustainability*, 12(18), 7324.
 20. Tavares, M. C., Azevedo, G., & Marques, R. P. (2022). The challenges and opportunities of era 5.0 for a more humanistic and sustainable society – a literature review. *Societies*, 12(6), 149.
 21. Teo, P. (2019). Teaching for the 21st century: A case for dialogic pedagogy. *Learning, Culture and Social Interaction*, 21, 170-178.
 22. Vahdat, S. (2022). The role of IT-based technologies on the management of human resources in the COVID-19 era. *Kybernetes*, 51(6), 2065-2088.
 23. Wang, B., Zhou, H., Li, X., Yang, G., Zheng, P., Song, C., ... & Wang, L. (2024). Human Digital Twin in the context of Industry 5.0. *Robotics and Computer-Integrated Manufacturing*, 85, 102626.
 24. Wolff, L. A., & Ehrström, P. (2020). Social sustainability and transformation in higher educational settings: A utopia or possibility?. *Sustainability*, 12(10), 4176.
 25. Zizic, M. C., Mladineo, M., Gjeldum, N., & Celent, L. (2022). From industry 4.0 towards industry 5.0: A review and analysis of paradigm shift for the people, organization and technology. *Energies*, 15(14), 5221.