Digital Press Social Sciences and Humanities

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Proceeding of 10th International Conference on Nusantara Philosophy (ICNP)

Risalatul Hukmi, Rangga Kala Mahaswa, M. Rodinal Khair Khasri, Putu Pradnya Lingga D. (eds)

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Abstract

Technology and science have experienced rapid development, one of which is the emergence of the era of super smart society (society 5.0). Many challenges and changes must be made in the era of society 5.0, one of which is education. The world of education plays an important role in improving the quality of Human Resources. Facing these challenges requires a paradigm shift in education. Some of the skills that need to be possessed are creativity, innovation, critical thinking, communication, and collaboration. The strengthening character also needs to be realized, and it aims to form an attitude that is in accordance with the cultural values of the nation. This study aims to explain how ideally the character is facing the era of society 5.0 through digital pedagogy. The method used in this research is descriptive qualitative with a literature study. The results of the study show that digital pedagogy is an approach that utilizes not only technology-based skills but also develops critical thinking, adaptive and social intelligence so that it can strengthen one's character in facing the era of society 5.0.

Keywords

Character, Digital Pedagogy, Society 5.0

1 Introduction

Technological developments have brought changes in the order of human life, one of the technological developments marked by the era of society 1.0 to society 5.0. It is believed that human life was initially in the era of society 1.0 or the hunting period and progressed towards society 2.0, humans began to sustain life by farming and the order of social life began to be recognized. Next, the revolution of society 3.0, the pattern of human work, which initially used human labor, switched to using machines so that it could mass produce results. Currently, human life is in the era of society 4.0, where information technology, internet networks and artificial intelligence are part of human life. The era of society 5.0 focuses on technology-based human life based on the cultural customs of society in the 4.0 era.

In this decade, the development of science and technology is at the point of the era of society 5.0, which is a continuation of the era of industrial revolution 4.0. The presence of these developments is not a barrier to limitations, but a challenge that must be conquered by human life. If the community cannot adapt to these developments, it can impact the lives of certain communities (Rahman, 2017). The impact of the presence of revolution 4.0 and society 5.0 for Indonesia provides an opportunity to build a globally competitive manufacturing industry. Through accelerating the industry in Indonesia, it is expected to open a roadmap and strategy for entering the digital era. This development must be supported by human resources who are competent and ready to compete in the global arena. In addition, each individual is also expected to have basic digital technology skills and a creative mindset because competency requirements in the industrial revolution era focused on problem solving, collaboration, critical and creative thinking skills. One of the factors supporting the quality of human resources is character strengthening. Nicholas Gane (in Selwyn, 2011) states that technology has changed the pattern of human life, for example, how to work, shop, meet people, communicate. However, it cannot be denied that this has changed the order of human life to become more individualistic and indifferent to the surrounding environment.

Strengthening character in the current era can take advantage of technological developments as a medium for conveying character values. Suppose previously, the use of technology emphasized the transfer

of knowledge, not the transfer of value. In that case, it is different from now, namely learning through digital technology allows students to learn to be independent in solving problems, innovating, creating and collaborating through the use of technology. This study aims to examine conceptually regarding character strengthening through digital pedagogy, as a form of effort to deal with the development of the era of society 5.0. Education plays an important role in welcoming smart society 5.0 because education aims to create an intelligent society, that has character and is humane. Digital pedagogy is an alternative solution in digital era learning because it is relevant to the younger generation in today's era. Besides learning through digital pedagogy can integrate character values so that it can form a generation that is competent and ready to compete globally.

2 Future Education Challenges

Science and technology are currently experiencing rapid development, humans coexist with machines. Do not be surprised if in the future the work that has been done by humans will be replaced by machines. As one of the entities that cannot be separated from human life, namely education in various parts of the world has also experienced changes. There are many advances in science and technology that can be enjoyed in human life, but not a few human lives have suffered as a result of these advances. If traced further, the development of the times has positively and negatively impacted life. The positive influence is helping developing countries become more technically advanced and prosperous. At the same time, the negative influence is the emergence of a ruling technocracy supported by modern tools and sophisticated weapons (Lestari, 2018, p. 95).

Facing these various changes in the field of education, schools must start directing students to learn about "how to learn?". If it is not emphasized from the start, there will be a blindness in the learning process, namely learning disabilities (Toffler, 1992, p. 4). So that it is hoped that future generations, namely humans who educate themselves throughout their lives, as well as people who learn openly and do not abandon the values of national character. Education in the future will have various challenges so these challenges become a moment to improve the quality of education.

Providing quality education is one of the duties of the state, so that the state has an obligation to provide education that all Indonesian people can access. The quality of existing human resources also influences the progress of a country. The development of quality human resources is not only mastering science and technology but also having the character of national values, mastering skills and having the courage to innovate in the development of technology and science.

Some of the future educational challenges include (1) quality of education, (2) professionalism of educators, (3) access to education, (4) utilization of technology, (5) improvement of education management, (6) learning strategies. In addition to these challenges, rapid changes in the socio-economic sector have encouraged education to prepare generations ready to face global challenges. The issue of digital technology in education is no less important because there is currently a gap in access to digital technology between regions in Indonesia, as is the case in eastern Indonesia. Technological developments require the world of education to switch to the digital world. If areas in eastern Indonesia are difficult to access digital technology, it will affect student learning outcomes.

Science and technology from time to time continue to develop, so education as a process of self-development in fostering human beings is one of the endless studies to be studied. Education held in Indonesia must also pay attention to the relevance of the needs of the labor market (Hidayat et al., 2018). Based on data from the Central Statistics Agency for 2018 reported by idntimes.com (23/12/2022) the total population in Indonesia has reached 265 million people, this data will continue to grow, and it is estimated that in 2024 it will reach 282 million people even in 2045 it can reach 317 million. In addition, according to BPS data for 2018, the number of millennials aged 20-35 reached 24 percent, or the equivalent of 63.4 million out of 179.1 million people of productive age, namely 14-64 years. This is an indicator that the millennial generation plays a role in determining the future of the Indonesian nation. The challenge at hand is how the nation's next generation can compete in accessing jobs, while the number of unemployed in Indonesia is increasing.

The ability to think critically, and have skills that are in accordance with the needs of job positions are important factors in facing the challenges of globalization. Education in the digital era also emphasizes wider interaction, especially through the use of information and communication. This is one of the pedagogical challenges in the world of education. An important step to take is to examine what is needed in education and to build a pedagogical framework that can answer challenges in the field of education

Digital Press Social Sciences and Humanities 9: 00017 (2023)
Proceeding of 10th International Conference on Nusantara Philosophy (ICNP)

https://doi.org/10.29037/digitalpress.49449

(Laurillard, 2009). In order to build a pedagogical framework in the education field, participatory, collaborative, problem-based, interdisciplinary, intergenerational and intercultural learning is needed. Such pedagogy will contribute to the creation of shared knowledge.

3 Character Strengthening in Facing Society 5.0 Era Through Digital Pedagogy

The era of society 5.0 cannot be separated from technological developments but in this revolution it is also directed at the order of social life of the community. This encourages the challenges to be resolved through innovation contained in the industrial revolution 4.0. In the era of society 5.0, artificial intelligence also pays attention to the human side combined with data. Era society is understood as society 5.0 following industry 4.0 which focuses on production to a certain extent. In contrast to society 5.0 which focuses on humans as the center of innovation and takes advantage of the results of industrial technology innovation 4.0. Society 5.0 is expected to solve societal problems worldwide, such as economic capitalism, economic growth and technological developments that have not been able to create a society that grows and develops independently and enjoys life. So it is hoped that the existence of society 5.0 can achieve justice, equity, prosperity and create a smart society (Handayani, 2020).

Society 5.0 has the goal of creating a life centered on economic development and solving societal challenges can be achieved so that people can enjoy a good quality of life. In addition, society 5.0 has the ultimate goal of improving the quality of life by mobilizing productive potential and technology from the results of the industrial revolution 4.0. Society in the 5.0 era is characterized as a super-smart society, that is, everyone can receive high-quality services and can live a comfortable and passionate life that allows for differences in age, gender, and language (Harayama, 2017, p. 10). Technological advances that have been created occasionally experience rapid changes, thus providing opportunities to create various innovations, creations, and collaborative collaborations. However, existing progress is one of the challenges in the fields of ethics, law, social, security, privacy and safety. Society 5.0 is created through technological innovation that eliminates regional, age, gender, language disparities and is adapted to needs. Through these innovations the community can promote economic development and find solutions to social problems (Raharja, 2019)

Facing the era of progress in various fields, it must be accompanied by an increase in the quality of human resources in the midst of international competition. Not a few foreign workers have begun to enter the workforce in Indonesia. This becomes an important agenda in the effort to create a superior and competent generation. On the other hand, there are basic problems that must be resolved, namely the problem of character crisis in the younger generation, for example, a lack of social life, good manners fading day by day, and other crime cases. To overcome this problem, character-strengthening guidance is needed (Faridah et al., 2021, p. 7313). The strengthening character must be supported by readiness to face the era of society 5.0 where this era is closely related to skills in using technology. According to Trilling and Fadel (2009) state that skills in the 21st century consist of three types, namely (1) life and career skills, (2) learning and innovation skills (3) information media and technology skills. These skills become provisions in carrying out character strengthening in everyday life.

Education in Indonesia has now entered the era of society 5.0, and this is shown through the offer of a society that is centered on balance. The internet has become a part of human life, and technological developments can be minimized by human inequality and economic problems in the future. In addition, education in the era of society 5.0 focuses on capabilities and innovation in the use of technology. This is associated with the competency skills needed in the current era, including (1) critical thinking skills and problem-solving, (2) communication skills, (3) creativity and innovation, and (4) collaboration skills (Harun, 2021, pp. 271-272). This ability is a means for students to develop themselves further, in this case not only to gain knowledge and metacognitive competencies but also to develop their own potential (Harun, 2021, p. 272)

Technology integration, especially digital aspects in 21st century learning, requires understanding and application in the classroom context and is relevant by considering the learning paradigm that developed in the 4.0 revolution era. Learning is currently experiencing a shift where students are given freedom in the learning process, especially in digital pedagogy, learning becomes more flexible and can be carried out without space and time limitations (Santosa, 2022). Digital pedagogy has the characteristics of being able to unite theory and practice, create and think, foster creativity, solve problems, encourage collaboration and cooperation. This has the aim of increasing critical understanding of the surrounding environment through the use of digital technology (Spiro, 2013). Digital pedagogy emphasises the use of technology and

how an educator can utilize technology to build thinking skills and develop affective potential in students (Purfitasari et al., 2019).

In line with this, character strengthening can be carried out through integration in education based on digital pedagogy, namely as involvement and reflective practice in teaching and learning activities through digital technology. Strengthening character through digital pedagogy in education can encourage a dynamic learning atmosphere so that students can observe and construct existing realities. This can encourage students to be critical, curious, and empathetic and seek solutions to problems. This aspect will teach students social intelligence, not just build academic knowledge. Digital pedagogy will encourage the development of knowledge based on problem solving. This approach will encourage students to develop thinking skills and switch from remembering learning content to understanding in-depth concepts (Kent & Holdway, 2009). So that digital pedagogy will encourage connectedness to the wider world.

Gradually education in the era of society 5.0 will experience changes in terms of models, methods and learning media. Therefore, students and teachers must prepare themselves by equipping them with the ability to adapt to the times. Human resources with competence and character can become capital for developing the nation's civilization. Characters reflected through digital pedagogy in learning will form "new characters", namely characters that are reflected through critical attitudes, skills in utilizing technology, and fostering an attitude of curiosity. These elements can become the basis for facing the era of society 5.0 because this era will emphasize an integrated, fast-paced and automatic life.

4 Conclusions

Strengthening character through digital pedagogy in an effort to face the era of society 5.0 can be done by encouraging students to improve their skills. This is shown through critical thinking, because through digital pedagogy students will learn from remembering content to a deep understanding of concepts. Student creativity is also honed through the learning models offered in the current era because students have given choices such as project-based learning, problem based learning and other models. In addition, students are also given the opportunity to collaborate, present their work digitally. Digital pedagogy will provide convenience in accessing learning, so that all people can take advantage of it. The character that is reflected through the practice of digital pedagogy can be a foundation in facing the era of society 5.0. Human resources who have the competence and are ready to compete can become capital for the development of the nation's civilization.

References

Faridah, T. N., Dewi, D. A., & Furnamasari, Y. F. (2021). Meningkatkan Karakter Generasi Muda di Era 5.0 Melalui Pembelajaran Pendidikan Kewarganegaraan. *Jurnal Pendidikan Tambusai*, 5(3), 7310-7314.

Handayani, N. N. L., & Muliastrini, N. K. E. (2020). Pembelajaran Era Disruptif Menuju Era Society 5.0 (Telaah Perspektif Pendidikan Dasar). In *Prosiding Seminar Nasional IAHN-TP Palangka Raya* (No. 1, pp. 1-14).

Harayama, Y. (2017). Society 5.0: Aiming for a New Human-centered Society. Collaborative Creation through Global R&D Open Innovation for Creating the Future. *Hitachi Review* 66(6). 8-13.

Harun, S. (2021). Pembelajaran di Era 5.0. *Prosiding Seminar Nasional Pendidikan Dasar*. Pascasarjana Universitas Negeri Gorontalo.

Hidayat, T., Rizal, A.S & Fahrudin. (2018). Peran Pondok Pesantren sebagai Lembaga Pendidikan Islam di Indonesia. *Ta'dib: Jurnal Pendidikan Islam*, VII(2), 1-15.

Laurillard, D. (2009). The pedagogical challenges to collaborative technologies. *International Journal of Computer-supported collaborative learning*, *4*, 5-20.

Lestari, S. (2018). Peran Teknologi dalam Pendidikan di Era Globalisasi. *Edureligia: Jurnal Pendidikan Agama Islam*, 2(2), 94-100.

Purfitasari, S., Masrukhi, M., Prihatin, T., & Mulyono, S. E. (2019). Digital Pedagogy sebagai Pendekatan Pembelajaran di Era Industri 4.0. In *Prosiding Seminar Nasional Pascasarjana (PROSNAMPAS)* (Vol. 2, No. 1, pp. 806-811).

Raharja, H. Y. (2019). Relevansi pancasila era industry 4.0 dan society 5.0 di pendidikan tinggi vokasi. *Journal Of Digital Education, Communication, And Arts (Deca)*, *2*(1), 11-20.

Rahman, V. E. (2019). *IMR 2019: Bonus Demografi di Indonesia, Peluang atau Tantangan?* Idntimes.com. Retrieved from https://www.idntimes.com/news/indonesia/vanny-rahman/bonus-demografi-di-indonesia-peluang-atau-tantangan-ims2019

Santoso, M. H. (2022). Pedagogi Digital dan Adaptasi Pembelajaran di Konteks Pembelajaran Daring. *Praktik Baik Pembelajaran Daring Adaptif Calon Guru Bahasa Inggris*. Universitas Pendidikan Ganesha

Selwyn, N. (2011). *Education and Technologu Key Issues and Debates*. India: Replika Press Pvt Ltd

Serpanos, D. (2018). The Cyber-Physical System Revolution. *Computer*, 511(3), 70-73.

Spiro, L. (2013). *Defining Digital Pedagogy*. Retrieved from https://digitalscholarship.files.wordpress.com/2013/03/gettysburgintrodigitalpedagogyfinal.pdf (2013)

Toffler, A. (1992). *The Future Shock*. Jakarta: Pantja Simpati.

Trilling, B. & Fadel, C. (2009). *21st Century Skills: Learning for life in our times*. US: Jossey Bass A Wiley Imprint