

Analyzing the Challenges and Opportunities of History Learning in the Era of Society 5.0

Bahtiar Afwan^{1*}, Johan Setiawan², Umi Hartati³, Susi Suryani⁴

^{1,2,3}History Education, Faculty of Teacher Training and Education, Universitas Muhammadiyah Metro, Indonesia

⁴Elementary School Teacher Education Program for Madrasah Ibtidaiyah, Faculty of Tarbiyah, UIN Raden Mas Said, Indonesia

*correspondence email: bahtiarafwan@gmail.com

Received 31 July 2024; Received in revised form 30 August 2024; Accepted 2 September 2024

Abstrak

Artikel ini mengkaji transformasi pembelajaran sejarah di era Society 5.0, sebuah konsep masyarakat yang mengintegrasikan teknologi canggih seperti *Internet of Things* (IoT), kecerdasan buatan (AI), dan *big data* ke dalam kehidupan sehari-hari. Pembelajaran sejarah di era ini menghadapi peluang dan tantangan baru, termasuk akses ke sumber daya digital seperti arsip dan simulasi, serta tantangan kesenjangan digital dan kesiapan guru. Penelitian ini menyoroti pentingnya mengembangkan kemampuan berpikir kritis dan analitis siswa, serta adaptasi model pembelajaran yang sesuai dengan karakteristik Generasi Z yang lebih digital dan mandiri. Melalui pendekatan deskriptif kualitatif dan studi kasus, artikel ini mengeksplorasi bagaimana teknologi dapat digunakan secara efektif dalam pendidikan sejarah untuk menciptakan pengalaman belajar yang lebih bermakna dan inklusif. Hasil penelitian menunjukkan perlunya pendekatan yang lebih adaptif dan personal dalam pembelajaran sejarah, dengan memanfaatkan teknologi sebagai alat bantu, bukan sebagai pengganti pemikiran kritis. Artikel ini menyimpulkan bahwa pengembangan strategi pembelajaran yang efektif dan pelatihan berkelanjutan bagi guru sangat penting untuk mengatasi tantangan dan memaksimalkan peluang dalam pembelajaran sejarah di era Society 5.0.

Kata kunci: era society, pembelajaran sejarah, tantangan, peluang.

Abstract

This article examines the transformation of history learning in the Society 5.0 era, a concept of society that integrates advanced technologies such as the Internet of Things (IoT), artificial intelligence (AI), and big data into everyday life. History teaching in this era faces new opportunities and challenges, including access to digital resources such as archives and simulations, as well as the challenges of the digital divide and teacher readiness. This research highlights the importance of developing students' critical and analytical thinking skills, as well as adapting learning models to suit the characteristics of Generation Z who are more digital and independent. Through a qualitative descriptive approach and case studies, this article explores how technology can be used effectively in history education to create more meaningful and inclusive learning experiences. The research results show the need for a more adaptive and personalized approach to learning history, by utilizing technology as a tool, not as a substitute for critical thinking. This article concludes that the development of effective learning strategies and ongoing training for teachers is very important to overcome challenges and maximize opportunities in history learning in the Society 5.0 era.

Keywords: society era, history learning, challenges, opportunities.

INTRODUCTION

The transformation in the Society 5.0 era represents a development in information

and communication technology that has impacted various aspects of human life, particularly in education. Society 5.0 is a

concept of a human-centered society supported by the advanced integration of physical and digital spaces. Technologies such as the Internet of Things (IoT), artificial intelligence (AI), and big data are utilized to create new values that can solve various social and economic problems (Mayumi, 2018).

History education, as a crucial part of the curriculum, is not exempt from these developments. On one hand, digital technology provides a variety of resources and tools that can enrich the learning experience in history, such as digital archives, historical simulations, and game-based learning (Bates, 2019). On the other hand, challenges arise, particularly regarding how technology is used effectively to enhance students' understanding and appreciation of history.

The main goal of history education in the Society 5.0 era is to equip students with a deep understanding of past events, enabling them to appreciate various historical contexts and their impact on the present world. History education also aims to develop students' critical and analytical thinking skills and to strengthen their awareness of human values and cultural diversity (Morton, 2013).

Furthermore, history education in this era should shape students into responsible and globally-minded citizens. In an increasingly connected world, it is crucial for students to understand history not only from a local or national

perspective but also in a global context. This understanding will help students appreciate diversity and understand the dynamics of international relations (Bransford & Donovan, 2005).

Technology in the Society 5.0 era should be used as a tool to achieve these goals. For instance, the use of digital simulations can help students comprehend complex historical events in a more interactive and engaging way. Digital archives allow students to access historical sources that were previously difficult to reach. Game-based learning can make the learning process more enjoyable and motivate students to delve deeper into historical materials (McCall, 2016).

However, to achieve these goals, educators must have a deep understanding of how to integrate technology effectively into history teaching. Students need to develop innovative and adaptive learning strategies, ensuring that the use of technology does not replace critical reasoning and in-depth analysis, which are the core of history education (Selwyn, 2016).

The transformation in the Society 5.0 era has also led to the emergence of a generation often referred to as Generation Z. Generation Z has specific characteristics that influence how students learn history. Firstly, students have high technological skills and are very comfortable using digital devices in their

daily lives (Seemiller & Grace, 2016). This makes them more responsive to learning methods that utilize digital technology, such as web-based learning applications, digital simulations, and augmented reality.

Secondly, Generation Z tends to have shorter attention spans compared to previous generations. Students are more interested in information presented visually and interactively (Turner, 2015). In history education, this means that educators need to find creative ways to present historical material, such as using short videos, infographics, and engaging educational games.

Thirdly, Generation Z tends to learn independently and seek information on their own through the internet (Schwieger & Ladwig, 2018). They prefer flexible learning that can be accessed anytime and anywhere. Therefore, history education in the Society 5.0 era needs to provide resources accessible online, such as e-books, digital comics, digital archives, and interactive learning platforms.

Despite Generation Z's proficiency in using technology, students also need guidance in developing critical and analytical thinking skills. Technology should be used as a tool to enrich learning, not as a substitute for deep reasoning and critical analysis of historical events (Selwyn, 2016). Educators need to develop learning strategies that combine technology with approaches that

encourage students to think critically, such as class discussions, research projects, and primary source analysis.

One of the main issues in history education in the Society 5.0 era is the digital divide between schools with access to advanced technology and those without. Schools in remote areas often face limited access to the internet and digital devices, leading to disparities in the quality of history education (Aristovnik et al., 2020). This can exacerbate educational inequalities and hinder efforts to create an inclusive society.

The Society 5.0 era also presents significant challenges in terms of educator training and preparedness. Many history teachers may feel unprepared or lack the necessary skills to integrate digital technology into teaching. Providing adequate and continuous training for educators is a major challenge that must be addressed (Afwan et al., 2020b, 2022).

Additionally, there is a challenge in ensuring that the use of technology in history education does not diminish the depth and quality of learning. Technology should be used to support and enrich the learning process, not as a replacement for critical reasoning and in-depth analysis of historical events (Selwyn, 2016). Therefore, it is important for educators to receive adequate training in effectively integrating technology into the history curriculum.

Technology also enables more personalized and adaptive learning. AI and other digital era technologies can be used to identify each student's learning needs and preferences, providing learning materials tailored to their level of ability and interest. This can increase the effectiveness of learning and help students achieve better learning outcomes (Afwan et al., 2020a).

Furthermore, history education that uses technology can develop 21st-century skills, such as critical thinking, creativity, collaboration, and digital literacy. Students not only learn about historical events but also develop essential skills to face future challenges (Voogt & Roblin, 2012).

Previous studies have extensively discussed how digital technologies, such as digital archives, historical simulations, and game-based learning, can be used to enrich the experience of learning history (Bates, 2019). The limitation of these studies is that their primary focus is on the use of existing technology without providing clear practical guidelines on how these technologies can be effectively integrated into the history curriculum. Another study has identified the characteristics of Generation Z, who have high technological skills and a tendency to learn independently through the internet (Seemiller & Grace, 2016). However, this study tends to be limited to the general characteristics of Generation Z without

offering in-depth recommendations on how history education can be specifically tailored to meet their needs and preferences. Another research highlights the digital divide between schools with access to advanced technology and those without adequate access (Aristovnik et al., 2020). Although this study has identified significant issues related to the digital divide, it remains limited in offering solutions that can be practically applied in various educational contexts.

From the three previous studies mentioned above, the novelty of this research can be found by focusing on the development of concrete and applicable strategies that effectively integrate technology into history learning for Generation Z, while addressing the challenges of the digital divide and ensuring the strengthening of critical thinking. Furthermore, this research can contribute by developing a comprehensive training model for teachers to effectively integrate technology into history education, particularly in areas with limited technological access.

By understanding the innovations, challenges, and opportunities available, history education in the Society 5.0 era can become more relevant, engaging, and meaningful for students. This will help students not only understand past events but also develop the necessary skills to become globally-minded and responsible citizens in the future.

To address these challenges in the context of history education, this era of change presents unprecedented opportunities. It also presents complex challenges and problems. Therefore, it is crucial and necessary for researchers to conduct in-depth analytical studies on the challenges and opportunities in history education in the Society 5.0 era. This research aims to analyze and explore more complex information about the challenges and opportunities for teachers and students in the classroom during the history learning process in the Society 5.0 era.

Thus, history education can become more relevant, engaging, and meaningful for students, helping them understand the past and prepare for a complex and dynamic future. History education can enhance its quality, facilitate teacher training, encourage critical thinking development, and create a more inclusive learning environment.

METHOD

This research uses a descriptive qualitative (Abdussamad, 2021). This research a case study method to analyze the challenges and opportunities in history education in the Society 5.0 era (Rita Fiantika et al., 2022). This approach was chosen because it allows researchers to deeply understand phenomena and gain rich insights into the increasingly digitally influenced context of history education.

Data was collected using library research methods, which involved reviewing various sources including books, research articles in academic journals, e-books, documents, and online literature. Additionally, the study included an analysis of phenomena related to history education in the Society 5.0 era, as well as the challenges and efforts in history education to face this era.

RESULTS AND DISCUSSION

The Nature of History Education in the Society 5.0 Era

History education in the Society 5.0 era presents a significant challenge in the world of education. Society 5.0, an evolution from Industry 4.0, emphasizes the role of technology and humanity in improving the quality of human life. In this context, history education must be aimed at developing critical thinking, creativity, and collaboration skills among students (Sumintho, 2023).

History education in the Society 5.0 era should integrate 21st-century skills, which include critical thinking and problem-solving, communication, creativity, and collaboration (Harun, 2021). The integration of these skills is crucial to preparing students to navigate a rapidly changing world.

Moreover, the strategy of history teachers is crucial in facing the educational challenges of the Society 5.0 era. Teachers must develop their potential

and skills using technology-based teaching materials and information from online media and the real world (Pinatih, 2020). This approach ensures that educators are equipped to effectively incorporate technological advancements into their teaching practices.

In a national seminar on the role of education and learning in the Society 5.0 era, it was emphasized that history education should focus on values and character, not just the mastery of subject matter (Maulida, 2022). This holistic approach aims to foster a deeper understanding of historical contexts and their implications for the present and future.

Challenges and Opportunities in History Education in the Society 5.0 Era Technology-Based Learning

The integration of technology in history education is one of the main challenges in the Society 5.0 era. Although technology offers various opportunities, such as access to digital resources and data analysis tools, effective implementation requires adequate infrastructure and digital skills from both teachers and students.

The implementation of learning in schools, particularly in history education, still faces disparities (Hidayanti, 2021; San Mikael Sinambela et al., 2024). The technological advancements of today are not experienced equally by all students,

creating a digital divide. Not all students have equal access to technology, which exacerbates educational inequality.

The issue of access and technological infrastructure is a serious concern, as not all schools have adequate facilities to implement advanced technology in the teaching-learning process. In remote areas, stable internet access and technological devices such as computers and tablets are still problematic. Without adequate infrastructure, it is difficult for schools to leverage the potential of technology in history education. This gap can worsen educational inequality, as students without access to modern technology may fall behind in history learning. The digital divide presents a significant challenge in education, as not all students have the same access to technological devices and the internet (Thornhill-Miller et al., 2023). The lack of infrastructure in many schools is a major barrier to implementing relevant technology for learning (Fowler, 2021). This becomes a significant obstacle in integrating technology into the history learning process. Moreover, the characteristics of students in the Society 5.0 era, who are generally more digitally literate and independent learners, demand a revolution in the learning process to integrate updated technology in line with contemporary developments.

Transformation of the Teacher's Role

The role of teachers in the Society 5.0 era has shifted from merely conveying information to becoming learning facilitators who help students access, understand, and analyze information. This aligns with the goals of history education, which demands meaningful learning so that students not only understand but also develop character. Therefore, the teacher's role in this context is indeed complex.

Support for teacher competence facilities is crucial in helping them develop the skills needed to support learning in the digital era (Mansyur et al., 2023). Teachers in this context need support to enhance their digital and pedagogical skills. Support from educational institutions and appropriate policies is essential for the successful transformation of the teacher's role.

Additionally, the importance of a student-centered approach emphasizes active participation and collaboration, necessitating a paradigm shift in teaching (Kennedy, 2022). Teachers must be able to adopt a more student-centered learning approach, which emphasizes active participation and collaboration. This requires a paradigm shift in teaching that is not always easy to achieve.

Teachers, as the individuals delivering education, are also expected to possess strong core soft skills, including critical thinking, creativity,

communication, collaboration, as well as serving as role models in behavior, passion, and inspiration—roles that technology cannot replace. To achieve 21st-century learning goals, there must be an alignment between learning trends and best practices. One way is by combining face-to-face learning activities with online or networked learning using laptops, smartphones, computers, and other devices that can access information. This is known as blended learning or hybrid learning, which integrates the use of technology in teaching, allowing for personalized learning for each student in the classroom.

Developing Students' Critical and Analytical Skills

In an era of abundant information, the ability to think critically and analyze information is crucial. Students must be able to evaluate the accuracy and reliability of historical information sources and distinguish between facts and opinions. The ability to evaluate the reliability and accuracy of information sources is essential in history education (Smith et al., 2019). This capability is particularly necessary for students in the Society 5.0 era.

Efforts to develop students' critical and analytical skills are closely tied to the role of the history curriculum, which should aim to enhance these skills. This includes exercises that encourage students

to construct data-based arguments, assess evidence, and analyze primary sources. A good history curriculum should include exercises that develop students' critical and analytical abilities (Teasdell, 2021). This helps students acquire competencies in historical awareness, historical empathy, and historical thinking.

The Society 5.0 era brings significant changes in how we approach education. The integration of technology and the focus on 21st-century skills require learning models that can facilitate the development of critical, creative, and collaborative thinking skills. Some relevant and effective learning models in this era include Problem-Based Learning (PBL), Project-Based Learning (PjBL), and Case Study.

Problem-Based Learning is a student-centered learning model where students learn through solving real-world problems. PBL emphasizes developing critical thinking and problem-solving skills, which are crucial in the Society 5.0 era. In PBL, students work in groups to find solutions to presented problems.

The Problem-Based Learning model helps students develop critical thinking skills and the ability to solve problems effectively (Fowler, 2021). This process involves research, discussion, and reflection, helping students gain a deeper understanding of the subject matter.

In addition, Project-Based Learning emphasizes students engaging in real

projects that require research and problem-solving. PjBL allows students to connect theory with practice and develop skills relevant to the real world. PjBL allows students to engage in real projects that require research, collaboration, and application of knowledge (Thornhill-Miller et al., 2023).

Through these projects, students can develop communication, collaboration, and time management skills while deepening their understanding of the subject matter. PjBL helps students develop the ability to work independently and in teams, motivating them to learn through active engagement and real-world relevance.

Furthermore, the Case Study learning model focuses on real-world cases to help students understand concepts and applications in relevant contexts. This model is highly effective in developing analytical skills and the ability to apply knowledge in real-world situations. Case Study learning helps students develop analytical skills and apply knowledge in real-world contexts (Kennedy, 2022).

In this model, students analyze specific situations or cases, identify problems, and propose solutions based on their knowledge and research. The Case Study approach allows students to see how theory is applied in practice and helps them develop the ability to think critically and make decisions based on available information.

CONCLUSION

The use of advanced technologies such as the Internet of Things (IoT), artificial intelligence (AI), and big data in the Society 5.0 era is integrated into human life, transforming education, including history education. In this era, the goal of history education is to provide students with a deep understanding of past events, critical thinking skills, and an awareness of human values and cultural diversity. Tools such as historical simulations, digital archives, and game-based learning are among the tools that can enhance education.

However, there are several challenges to implementing these tools. For instance, there is a digital divide between schools that have access to technology and those that do not. Teachers also need to adapt to their new roles as facilitators of technology-enhanced learning. While technology can enhance learning, it is crucial to also focus on developing students' critical and analytical skills.

Generation Z, in particular, demands more visual, interactive, and flexible learning approaches. Therefore, history education needs to be more flexible, utilizing technologies like e-books, simulations, and web-based applications.

Finally, although Society 5.0 offers opportunities for more inclusive and efficient education, its implementation heavily depends on the readiness of

infrastructure and teacher training. Further research is needed to explore the challenges and benefits of applying technology in history education. This will ensure that students not only understand the past but are also prepared to face a complex and dynamic future.

REFERENCES

- Abdussamad, Z. (2021). Metode Penelitian Kualitatif. In P. Rapanna (Ed.), (1st ed., Vol. 4, Issue 1). CV. Syakir Media Press. <https://osf.io/juwxn>
- Afwan, B., Suryani, N., & Ardianto, D. T. (2020a). Analisis Kebutuhan Pembelajaran Sejarah Di Era Digital. *Proceeding Literasi Dalam Pendidikan Di Era Digital Untuk Generasi Milenial*, 1(1), 9.
- Afwan, B., Suryani, N., & Ardianto, D. T. (2020b). The Development of Digital Flipbook Media Based on the 5 Hours Battle of Kalianda upon High School History Materials. *Budapest International Research and Critics Institute (BIRCI-Journal): Humanities and Social Sciences*, 3(2), 1003-1012. <https://doi.org/10.33258/birci.v3i2.930>
- Afwan, B., Vahlia, I., Sholiha, S., Metro, U. M., Metro, U. M., & Metro, U. M. (2022). Analisis kebutuhan pembelajaran kewirausahaan di era abad 21. 0(0), 24-33. <https://repository.ummetro.ac.id/files/artikel/3883.pdf>
- Aristovnik, A., Keržič, D., Ravšelj, D., Tomaževič, N., & Umek, L. (2020). Impacts of the COVID-19 pandemic on life of higher education students: A global perspective. *Sustainability (Switzerland)*, 12(20), 1-34. <https://doi.org/10.3390/su12208438>

- Bates, T. (2019). *Teaching in a Digital Age: Guidelines for Designing Teaching and Learning*. Vancouver.
- Bransford, J. D., & Donovan, M. S. (2005). *How Students Learn: History in the Classroom*. In *How Students Learn: History, Mathematics, and Science in the Classroom* (pp. vii-x). National Academies Press. <https://doi.org/10.17226/10126>
- Fowler, D. (2021). *Instructional Practices and Perceptions of Special Educators in Blended Learning Environments*.
- Harun, S. (2021). *Pascasarjana Universitas Negeri Gorontalo Prosiding Seminar Nasional Pendidikan Dasar “Merdeka Belajar dalam Menyambut Era Masyarakat 5.0” PEMBELAJARAN DI ERA 5.0*.
- Hidayanti, P. N. (2021). *Literasi Digital: Urgensi dan Tantangan dalam Pembelajaran Sejarah*. *FACTUM: Jurnal Sejarah Dan Pendidikan Sejarah*, 10(2), 155-162. <https://doi.org/10.17509/factum.v10i2.39203>
- Kennedy, B. L. (2022). *Bridging theory, research, and practice to address education dilemmas*.
- Mansyur, F. A., Arsad, A., Suherman, L. O. A., Himah, I., Zaka, I., Zilani, Z., & Syarifuddin, I. (2023). *Language Learning Adaptation Model In The Era of Society 5.0*. *ELS Journal on Interdisciplinary Studies in Humanities*, 5(4), 686-693. <https://doi.org/10.34050/elsjish.v5i4.21499>
- Maulida, Y. (2022). *Pentingnya Peran Guru Sejarah dalam Berinovasi Menghadapi Ancaman Perkembangan Teknologi Informasi di Abad Ke-21*.
- Mayumi, F. (2018). *Aiming for a New Human-centered Society*. <http://www8.cao.go.jp/cstp/>
- McCall, J. (2016). *Teaching History With Digital Historical Games: An Introduction to the Field and Best Practices*. *Simulation and Gaming*, 47(4), 517-542. <https://doi.org/10.1177/1046878116646693>
- Morton, S. (2013). *The Big Six Historical Thinking Concepts*.
- Pinatih, N. P. S. (2020). *Pembelajaran Menyenangkan dalam Menyongsong Era Society 5.0*. <https://prosiding.iahntp.ac.id>
- Rita Fiantika, F., Wasil, M., & Jumiyati, S. (2022). *Metodologi Penelitian Kualitatif*. www.globaleksekutifteknologi.co.id
- San Mikael Sinambela, Joy Novi Yanti Lumbantobing, Mima Defliyanti Saragih, Al Firman Mangunsong, Chairun Nisa, Johan Pardamean Simanjuntak, & Jamaludin Jamaludin. (2024). *Kesenjangan Digital dalam Dunia Pendidikan Masa Kini dan Masa Yang Akan Datang*. *Jurnal Bintang Pendidikan Indonesia*, 2(3), 15-24. <https://doi.org/10.55606/jubpi.v2i3.3003>
- Schwieger, D., & Ladwig, C. (2018). *Reaching and Retaining the Next Generation: Adapting to the Expectations of Gen Z in the Classroom*. In *Information Systems Education Journal (ISEDJ) (Issue 3)*. <http://iscap.info>; <http://isedj.org>
- Seemiller, C., & Grace, M. (2016). *Generation Z Goes to College*.
- Selwyn, N. (2016). *Education and Technology*.
- Smith, M., Breakstone, J., & Wineburg, S. (2019). *History Assessments of Thinking: A Validity Study*. *Cognition and Instruction*, 37(1), 118-144. <https://doi.org/10.1080/07370008.2018.1499646>

- Sumintho. (2023). Pembelajaran Sejarah di Era Digital: Antara tantangan dan Peluang. *Journal of Education and Learning Sciences*, 3(1), 1-10. <https://doi.org/10.56404/jels.v3i1.39>
- Teasdell, A. (2021). "Re-Membering" History to Counter Miseducation: Explorations of Curriculum Development and Culturally Responsive Pedagogy in Urban Education.
- Thornhill-Miller, B., Camarda, A., Mercier, M., Burkhardt, J. M., Morisseau, T., Bourgeois-Bougrine, S., Vinchon, F., El Hayek, S., Augereau-Landais, M., Mourey, F., Feybesse, C., Sundquist, D., & Lubart, T. (2023). Creativity, Critical Thinking, Communication, and Collaboration: Assessment, Certification, and Promotion of 21st Century Skills for the Future of Work and Education. In *Journal of Intelligence* (Vol. 11, Issue 3). MDPI. <https://doi.org/10.3390/jintelligence11030054>
- Turner, A. (2015). Generation Z: Technology and Social Interest. *The Journal of Individual Psychology*, 71(2), 103-113. <https://doi.org/10.1353/jip.2015.0021>
- Voogt, J., & Roblin, N. P. (2012). A comparative analysis of international frameworks for 21 st century competences: Implications for national curriculum policies. *Journal of Curriculum Studies*, 44(3), 299-321. <https://doi.org/10.1080/00220272.2012.668938>

