Indonesian Education Trends Towards the Era of Society 5.0: Improving the Quality of Human Resources

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*Abstract: The Society 5.0 era is an era where technology has become part of every individual, which means technology plays an important role in solving the problems faced by society. Thanks to Society 5.0, intelligence that cares about human aspects will transform millions of data collected via the Internet in all areas of life, especially education. Therefore, the importance of human resource readiness in facing the Society 5.0 era. The research method uses a qualitative approach with qualitative descriptive analysis of literature reviews about improving the quality of human resources before the Society 5.0 era collected from several research journals. This article was written to improve the quality of human resources, especially in the field of education, in facing trends in educational development so that human resources are ready to welcome the new era, namely the era of Society 5.0. The research results show that the challenges of education in the era of Society 5.0 require thorough preparation with adequate human resources and utilizing technological advances in the education sector.

Keywords: Education, Human Resources, Society 5.0

INTRODUCTION

Education can be understood as an institution as well as a process of improving the quality of human resources so that they can adapt to developments in science and technology in the era of Industrial Revolution 4.0 and other changes. The development of an increasingly globalized world (Saepudin et al., 2020). The development of information technology is currently penetrating all areas of people's lives, including education (Legi et al., 2022). The rapid development of information and communication technology has brought about fundamental changes in society and industry. Digital transformation will initiate new values and become a pillar of industrial policy in many countries. Currently, education trends in Indonesia must try to follow developments in the Society 5.0 era. The concern of this era is developing strategic, methodological, and pedagogical teaching approaches, including how to restore motivation, creativity, and joy of learning in students (Dirk Diestro, 2022).

In the Society 5.0 era, society is proposed to make balance its center. Moreover, in this era, the internet is not only used to get information, but the internet is also a part of the individual.
The use of technology in this era can reduce social disparities between people and economic crises that may occur in the future. Society in the Society 5.0 era is a society that has different needs and meets these needs by providing the necessary products and services in sufficient quantities to other individuals. The digital era may seem like it will reduce communication, but in reality, Industry 5.0 accelerates it to the point of making it unlimited (Gashimov & Pestova, 2021).

There are two priorities in increasing resources internationally: the priority is the implementation process, learning, and character formation of students in higher education. The second priority is that education in Indonesia must begin to be independent in learning, with teachers as the driving force. Based on the explanation of the two priorities above, we can conclude that in carrying out the educational process we should not only focus on artificial intelligence through its ability to connect various things but also focus on the human component as the driving force of education.

According to Handayani & Muliastrini (2020), Society 1.0 is a group of hunters and gatherers living in harmony with nature. Society 2.0 is defined as a society that forms groups based on agricultural culture, organizational innovation, and nation-building. Society 3.0 is defined as a society that encourages industrialization through the Industrial Revolution, enabling mass production. Society 4.0 is an information society that creates increased added value by connecting intangible assets in the form of an information network. In the development process, society 5.0 is an information society built on the foundation of society 4.0 towards a poor and prosperous society.

The increasing activity of using information technology due to the Society 5.0 era civilization requires a change in thinking about human resources (Bungawati, 2022). Society 5.0 is a society that can solve various social challenges and problems by using various innovations that were born in the era of the Industrial Revolution 4.0 such as the Internet of Things (Internet for everything), Artificial Intelligence, Big Data (in large quantities) and robots to improve the quality of human life. With the presence of Society 5.0, it is hoped that technology can be created in the field of education without changing the role of teachers in providing role models and moral education to students (Nastiti & Abdu, 2020). Based on a study of background thinking and the current condition of human resources, especially in Indonesia, the aim of this research is a literature study regarding readiness and how human resources are trending in facing the era of society 5.0.

**METHOD**

This article's research method uses a literature review research method about improving the quality of human resources before the Society 5.0 era which was collected from several research journals searched using the PoP (Publish or Perish) article search engine. Related to relevant journals supporting education trends in Indonesia. The research method is a qualitative approach with descriptive analysis. This article aims to improve the quality of human resources in the Society 5.0 era. Data collection techniques were carried out through literature reviews. Reference sources are taken from articles published by experts in domestic and foreign magazines as well as policies announced by the Government. Data analysis by studying the research results of each article referred to, by summarizing the research results, general conclusions can be drawn regarding education trends in Indonesia.

**RESULT AND DISCUSSION**

**Development of Education in the Era of Society 5.0**

Education in the current era demands the creativity of human resources to compete. By entering the era of society 5.0, the world is increasingly developing and moving quickly, it is hoped that it can improve all social aspects of society. The role of world of education has full
responsibility to be able to develop knowledge in facing the future. Nowadays, children are expected not only to be provided with knowledge but also to be equipped with critical thinking. So that later children will get used to critical thinking, analyzing, and being creative.

### Table 1. Results of literature studies related to the development of education in Indonesia

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<tr>
<th>No.</th>
<th>Article Title</th>
<th>Identity of the publishing journal</th>
<th>Author’s</th>
<th>Research Result</th>
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<tbody>
<tr>
<td>1</td>
<td>Improving Educational Quality through Optimizing the Potential of Educational Institutions in Indonesia</td>
<td>International Journal of Educational Research &amp; Social Sciences VOL. 2 NO. 1 (2021): FEBRUARY 2021</td>
<td>Feiby Ismail, Abdul Muis Daeng Pawero, Mardan Umar</td>
<td>Educational institutions in Indonesia must pay attention to the suitability of the curriculum with current developments, the provision of quality human resources so that they can have a positive impact on the educational process, and the availability of educational facilities and infrastructure must be met to meet customer satisfaction, in this case, students, the community and broader stakeholders.</td>
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<td>2</td>
<td>The Influence of Leadership Spirituality on Improving the Quality of Higher Education in Indonesia</td>
<td>International Journal of Social Sciences and Humanities Invention 9(02): 6832-6841, 2022</td>
<td>Bambang Karsono, Robertus Suraji, Istianingsih Sastrodiarjo</td>
<td>The result of this article is that spiritual leadership has a significant influence on improving the quality of higher education in Indonesia. This study emphasizes the importance of values, attitudes, and behavior based on faith in God to motivate oneself and others intrinsically. It also highlights the role of spirituality in shaping the morals and ethics of leaders and its impact on organizational performance. The research method used was qualitative, and data was collected through interviews with university leaders and a review of relevant literature. These findings indicate that spiritual leadership is very important for building character and achieving organizational goals. Additionally, this article discusses the advantages and disadvantages of spiritual leadership and notes that spiritual leadership has a significant impact on the quality of higher education and can change organizations for the better.</td>
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<td>3</td>
<td>The Role of Teachers in Driving Freedom of Learning to Improve the Quality of Education and Instruction</td>
<td>JOEAI (Journal of Education and Instruction) Volume 5, Number 1, June 2022</td>
<td>Riowati, Nono H. Yoenanto</td>
<td>The results of the literature review study show that educational problems cannot be separated from the role of teachers as leaders. The teacher's ability as a</td>
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<td>4</td>
<td>Driving Schools as an Effort to Improve the Quality of Education</td>
<td>Journal of Education and Counseling Volume 5 Number 1 2023</td>
<td>Halimatus sakdiah, Aulia Rahimi, Ahmad Darlis, Siti Azminatasya Ammar, Dedi Ariyanto Daulay</td>
<td>This research method uses a qualitative method which tends to use analysis but combined with existing facts in the field based on development results, it can be concluded that students’ interest in learning still has obstacles, this is because one of them is that in the learning process it takes place if the teacher can use a variety of there are various methods to increase students' interest in the learning process so that the obstacles that occur can be resolved easily. To overcome these obstacles, it is handed over to the homeroom teacher for guidance or it can also be handed over to the guidance and counseling teacher.</td>
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<td>5</td>
<td>Lecturer Performance Management Implementation in Improving the Quality of Higher Education in Indonesia (International Journal of Multidisciplinary and Current Educational Research (IJMCER), 2023)</td>
<td>International Journal of Multidisciplinary and Current Educational Research (IJMCER Volume 5 Issue 5 Pages 65-73 2023</td>
<td>Sri Winarsih, Sutrimo Purnomo</td>
<td>The research results found that planning, meeting leaders and lecturers, increasing knowledge, increasing capacity, increasing skills, improving self-attitude, and lecturer certification are important strategies for improving lecturer performance. This research also proposes a management model to improve lecturer performance through Spiritual Motivation in The Learning Organization</td>
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<td>6</td>
<td>Impact Evaluation Of The Road</td>
<td>Mantik Journal, 5 (4) (2022) 2332-2339</td>
<td>Aji Primanto &amp; Gunawan Undang</td>
<td>Research findings show that the impact of road infrastructure</td>
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<td>Infrastructure Development Policy In Improving The Quality Of Education Services In Indonesia</td>
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<td>development policies in Indonesia, especially increasing the infrastructure repair budget, has not been optimal in improving the quality of education services. This study reveals that the government's policy to increase the road infrastructure budget does not have a significant impact on the number of people accessing educational facilities. It is recommended that the government consider improving school infrastructure, teacher welfare, curriculum, and teacher competency through training and certification to improve the quality of education services.</td>
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<td>7</td>
<td>Principal leadership styles in improving the quality of education in Lhokseumawe Aceh Indonesia</td>
<td>Human Resources Management and Services Volume 5 Issue 1,2023</td>
<td>Zulfikar Ali Buto Siregar</td>
<td>The findings show that decision-making regarding school quality begins through general meetings with all teachers and school staff, as well as meetings with deputy principals. The decisions taken at the meeting are then brought to the school committee for a final decision. In addition, school principals directly implement policies issued by regional or central education officials or the Ministry of Education or the Ministry of Religion. This study also highlights the importance of national education standards as a basis for planning, implementing, and supporting the quality of national education. These standards are continually being improved to meet local, national, and global user demands. In conclusion, this research provides insight into the impact of school principal leadership styles on the quality of Islamic education in Lhokseumawe City, emphasizing the importance of effective leadership in improving the quality of education.</td>
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<td>8</td>
<td>Government Policy in Improving the Quality of Education in Indonesia</td>
<td>International Journal of Bunga Bangsa Cirebon (JOBBA)</td>
<td>Muhammad Eko Purwanto, Ismail Hasim, Iim Wasliman, Sri Handayani</td>
<td>The research results of this article show that the quality of education in Indonesia is influenced by various factors such as school performance, academic and non-academic achievements, and the quality of educators. The article also emphasizes the importance of clear learning outcomes, a healthy organizational structure, transparent and accountable management, and adequate teaching and learning facilities to improve the quality of higher education in Indonesia.</td>
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<td>9</td>
<td>The Influence of Principal Leadership on the Effectiveness of Driving Schools in Improving the Quality of Education</td>
<td>Tambusai Education Journal Vol. 5 No. 3 (2021): 2021</td>
<td>Dielfi Mariana</td>
<td>The driving school principal can drive school operations and become a facilitator for teachers in the school. Student-centered learning is carried out using a microlearning approach and adapted to students’ abilities, talents, and interests. Learning is planned according to students’ abilities and the various activities are expected to make students comfortable and happy when studying at school. The principal as a leader in the school can become a locomotive for change in the school.</td>
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<td>10</td>
<td>Improving Quality Education through Better Working Conditions of Academic Institutes</td>
<td>Journal of Ethnic and Cultural Studies 2020, Vol. 7, No. 1, 99-115</td>
<td>Teguh Budiharso</td>
<td>Educational institutions in Indonesia must pay attention to the suitability of the curriculum with current developments, the provision of quality human resources so that they can have a positive impact on the educational process, and the availability of educational facilities and infrastructure must be met to meet customer satisfaction, in this case, students, the community and broader stakeholders.</td>
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Based on Table 1 above, several reviews of the articles above show that the majority of research results show that educational development is influenced by the quality of human resources. With good human resources, ready to face all challenges, creative, innovative, and following technological developments, and being able to apply technology in learning will be a way to improve the quality of education, especially in Indonesia.
The Society 5.0 era can be understood as a social concept that is human-centered and technology-based (Santoso et al., 2023). The definition of Society 5.0 itself is an intelligent society that integrates the real environment with the virtual environment (Salgues, 2018). Society 5.0 or Society 5.0 is a concept discovered by Japan based on increasingly advanced technological developments and social dynamics (Nasiti & Abdu, 2020). It can be concluded that Society 5.0 is a society that utilizes technological developments in its life, in other words, technology has become an important part of people's daily lives that cannot be separated. To prepare for the Society 5.0 era, educational units must also experience a paradigm shift in their educational methods (Hikmat, 2022). With the Society 5.0 era, it is hoped that every individual's life will progress and develop thanks to technological advances.

Society 5.0 is an idea that explains social life with the development of the Industrial Revolution 4.0 (Nursyifa, 2019). Thanks to Society 5.0, artificial intelligence will transform big data collected via the Internet in all areas of life (Internet of Things) into new intelligence, to enhance human capabilities to open up opportunities for humanity. The Society 5.0 era requires society to be able to solve various problems or social dynamics by using technology such as the Internet of Things (IoT), artificial intelligence (AI), technological robots, and even big data, to meet daily needs (Indarta et al., 2022). Learning about Society 5.0 is considered very relevant in this era. In Society 5.0, technology is a tool that can help, facilitate, and improve human activities and work (Astini, 2022). The Society 5.0 era is in line with the development of inclusive educational design and is in line with the Indonesian national education system, including process standards, educator standards, and educational infrastructure standards (Mansur et al., 2023).

Due to society 5.0, artificial intelligence at the service of humanity will transform millions of data collected via the Internet in all areas of life. Of course, this will become new wisdom in the social order. It cannot be denied that this transformation will help people live more meaningful lives. In contrast to the Industrial Revolution 4.0 which focuses more on business, Society 5.0 technology creates new values that will eliminate social, age, gender, and language differences, while providing products and services specifically designed for the diverse needs of individuals and society. In Society 5.0, the need to achieve a balance between economic achievements and solving social problems is also emphasized. The digital industry is considered to play an important role in improving the quality of a country's economy (Sugiono, 2020).

**Educational Challenges in the Era of Society 5.0**

The existence of Society 5.0 creates unique challenges in various areas of life, including education, including learning. In the world of education, the Industrial Revolution coincided with the emergence of the era of Society 5.0 which was originally developed by Japan and brought very rapid progress, namely the emergence of many learning sources, differences, and the spread of mass media, including the Internet and electronic media as sources of knowledge and centers of education. This means that teachers are not the only source of knowledge. In this way, students can master knowledge that teachers have not yet mastered. The implementation of learning needs to prioritize students' needs and conditions (Hadiapurwa & Susilana Rudi, 2021). Therefore, it is not surprising that in the era of the Industrial Revolution 4.0 and Society 5.0, the reputation of teachers in particular and parents in general in the eyes of students is increasingly deteriorating. In the 4.0 era, the challenge in the world of education for teachers in the Industrial Revolution 4.0 era is to prepare teachers to access and master technology, the level of teacher media literacy is still low, and only some teachers have access to information technology [7]. The challenge for students is that the number of students is still too large, causing difficulties in the learning process and unequal access to information technology (Khairad et al., 2020). The public relations promotion strategy for higher education in the context of Society 5.0 places society as the center of interest and comfort in using technology (Daryono & Firmansyah, 2021).

On the other hand, the impact of education on the development of self-control, patience, a sense of responsibility, social solidarity, maintenance of the physical and social environment, respect for parents, and the expression of religious feelings in social life is increasingly...
weakening, and much more. Learning is a process that can be carried out through formal or non-formal education (Mariati et al., 2022). Educational activity design and assessment by integrating critical thinking, creative thinking, reflective thinking, and decision-making abilities into learning activities through inquiry-based activities (Kafrawi et al., 2021). It is time for educators, especially teachers, to pay attention to this problem and find ways to fix it. Schools must be the last bastion to prevent the negative impacts inherent in the increasing development of information and communication technology.

In terms of education, Indonesia is still below average. To increase global competitiveness, Indonesia must immediately make improvements, including analyzing learning methods preparing Indonesia's human resources to face the era of Industrial Revolution 4.0, and preparing for social integration. The assembly is quite a big challenge but must be met. Have the ability to motivate, be a guide, develop imagination, creativity, and personality values, and be a source of inspiration for students. This cannot be done by robots or artificial intelligence. This means that teachers must be able to understand the psychology and mental state of students. Only teachers can do this. Technology cannot replace the role of teaching in education. However, teachers should not be obsessed with implementing traditional learning methods that only use pedagogical methods but should instead use technology-based learning methods.

According to one, Malik Fadjar (Hasibuan, 2021) believes that there are three serious challenges currently being faced: First, how to fight the crisis and what we have achieved must not be lost; Second, we live in a global atmosphere in the field of education. According to him, competition is necessary, on a regional, national, and international scale; Third, changes and adjustments to the national education system to support a more democratic education process, taking into account the diversity of student needs or regional conditions and encouraging increased community participation.

Another challenge facing education in the future is the development of critical thinking. Based on Bloom's Taxonomy, thinking is divided into three parts, namely low-level thinking skills, middle-level thinking skills, and high-level thinking skills. The challenges of this era are increasingly complex, and the quantity and quality of teachers are not yet optimal. That's why all parties, including the government and educational institutions (Kahar et al., 2021).

**Human Resource Development to Face the Era of Society 5.0**

As educators in the era of society 5.0, educators are expected to have skills in the fields of digital technology and creative thinking. In the era of Society 5.0, teachers need to be more innovative and dynamic in teaching in the classroom. Whether the face of our education in the Society 5.0 era is good or not is determined by teachers as agents of change, who play a very strategic leadership role. This is the biggest challenge for teachers: they must immediately prepare themselves to adapt to the Society 5.0 era with all the problems they will face. Facing the complexity of the Society 5.0 era is increasingly resonating in Japan and will certainly have a significant impact on Indonesia. Especially Islamic religious education teachers. Therefore, Islamic religious educators must be able to face the obstacles that will arise. According to Mursalin, teaching staff must have the important skills needed to overcome this problem. Here are three main abilities that educators must have: First, problem-solving ability. Every member of society and every individual must be able to solve problems. The suitable strategy to solve it. Problem-solving skills are necessary to understand and solve problems (Hotimah, 2020). The problems or issues faced require a problem-solving process. A problem-solving strategy is a way of approaching a new situation by using certain strategies, methods, or techniques to be able to meet these conditions by improving goals. Second, critical thinking skills. Critical thinking is the ability to think critically and rationally to make decisions (Nuryanti et al., 2018). The way of thinking that must always be used and accustomed to is a way of thinking that is suitable for the future, namely analytical, critical, and creative thinking. This way of thinking is called higher-order thinking HOTS. HOTS style thinking is not like thinking in general, but rather thinking in
a complex, hierarchical, and systematic way. Third, creativity. Creative thinking ability is a
cognitive ability when solving problems that allows someone to use their intelligence in a unique
and results-oriented way (Utami, Endaryono, Djhartono, 2020). When solving problems that
allows someone to use their intelligence in a unique and results-oriented way (Utami et al., 2020).

According to Handayani & Muliastrini (Handayani & Muliastrini, 2020), the skills that a
person must have in the future are: communication skills, the ability to think clearly and critically,
the ability to consider the ethical aspects of a problem, have intelligence that matches your talents
and interests, have a sense of responsibility towards the environment, the ability to be a
responsible citizen, ready to work, the ability to try to understand and tolerate various points of
view, ability to live in a global society, there are many interests in life.

The assumptions according to Hasibuan (Hasibuan, 2021) regarding the human resource
development strategy for Era Society 5.0 are: complex problem solving, namely skills that every
individual must have and which arise naturally from hard work and life experience to solve all
existing problems, critical thinking is the ability of each individual to think clearly and thoroughly
about a problem and make reasonable judgments, creativity means that every individual must be
able to further develop their creative abilities effectively and continuously. Have new ideas, human
resource management, namely the ability to manage people wisely, effectively, and humanely to
achieve common goals through a competitive approach and long-term human resource
management, efficient human resource management, and effective human resource management,
coordinating with others, the ability of each individual to develop cooperation with other parties
so that they can support success in achieving goals, emotional Intelligence, namely the ability of
each individual to creatively and continuously produce new ideas capable of winning a global
competition, judgment and Decision Making, consideration, and decision-making, especially the
ability to make decisions quickly and accurately, Service Orientation, namely the ability to always
prioritize the best service for customers so that customers can receive it. Negotiation, namely the
ability to carry out negotiations and agreements desired by both or more parties without disputes
to maintain good and mutually beneficial relationships. Cognitive Flexibility, namely the ability
of each individual to manage the personalities of different people as well as possible, is a form of
good cooperation.

According to Tahar (Tahar et al., 2022) to achieve social success 5.0, three levels of personal
skills must be developed, namely: Personal communication skills, interpersonal competencies
including communication, (virtual) collaboration, social intelligence, and intercultural
competency; Inner capacity, about Intrapersonal skills include critical thinking, sensemaking,
adaptive and integrative thinking, and transdisciplinary and autonomous thinking; Improve IT
skills, about IT skills include specialized knowledge of information and communications
technology, computational thinking, social media literacy, and information security
fundamentals.

According to Endang Widi Winarni (Ariawan & Nufus, 2017), the skills of the 21st century
and the era of Industry 4.0 and Society 5.0 are Data literacy, namely the ability to understand,
read, analyze, and use data and information (big data) in the digital world; Technological
knowledge, ability to understand how machines work, application of technology (coding, artificial
intelligence, and engineering principles); Level of human knowledge, ability to understand
humanities, communication, and design; 21st-century skills encourage HOTS (Higher Thinking
Skills for Older Adults), including communication, collaboration, critical thinking, creative
thinking, computational logic, compassion, and civic responsibility; Understand the industrial era
4.0 and its developments; Understanding knowledge to be applied in practice for the common
good at local, national, and global levels. Understanding knowledge to be put into practice for the
common good locally, nationally, and globally.

CONCLUSION AND SUGGESTIONS
Based on the explanation above, it can be concluded if the Society 5.0 is a society that applies technological developments in life, in other words, technology has become an important part of people's daily lives and cannot be separated. With the Society 5.0 era, it is hoped that every individual's life will progress and develop thanks to technological advances. Educators and students face many challenges in the development of Society 5.0. Challenges at this stage are considered more complex and emphasize critical thinking and increasing creativity. Therefore, all parties, including the government, educational institutions, and society, must play an active role in developing and implementing educational support programs in the millennium era, to create a creative, innovative, and personable generation. To face the challenges of Society 5.0, a response strategy is needed, one of which is preparing human resources to enter the Society 5.0 era. The following are several skills or competencies that need to be mastered by personnel, firstly communication skills, critical thinking skills, problem-solving skills, human resource management skills, industry qualifications, technology skills, and literacy.

REFERENCES


