



Challenges of Higher Education in Facing the Society 5.0 Era: Systematic Literature Review (SLR)

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Abstrak

Tujuan dari penelitian ini adalah untuk mengetahui apa saja tantangan yang dihadapi oleh perguruan tinggi di Indonesia dalam menghadapi era society 5.0. Sehingga melalui penelitian ini seluruh stakeholders di perguruan tinggi mendapatkan sudut pandang yang baru dan segera beradaptasi dengan perkembangan yang ada. Penelitian ini menggunakan metode systematic literature review (SLR) dalam 6 tahun terakhir ini yaitu 2018-2023. Hasil tinjauan pustaka menunjukkan bahwa tantangan yang dihadapi perguruan tinggi dalam menghadapi era society 5.0 yakni pertama, bagaimana supaya kurikulum yang digunakan bisa menjawab kebutuhan di era society 5.0. Kedua, tantangannya yakni bagaimana caranya agar perguruan tinggi memiliki infrastruktur yang memadai terutama dalam bidang teknologi informasi dan komunikasi untuk mengakomodir pesatnya kebutuhan dunia digital di era society 5.0 apalagi dalam proses pembelajaran. Ketiga, tantangan dalam menyiapkan tenaga pendidik atau dosen agar memiliki kecakapan di bidang dunia digital dan kreatif. Keempat, tantangan menyesuaikan kompetensi yang harus dimiliki oleh lulusan agar sesuai dengan apa yang dibutuhkan oleh dunia kerja maupun dalam rangka mencetak entrepreneur muda. Hasil penelitian ini membantu memberikan dukungan kepada para stakeholders di perguruan tinggi terkhusus para pembuat kebijakan dalam merumuskan kebijakan yang baru serta beradaptasi terhadap perubahan baru yang disebabkan oleh era society 5.0, sehingga perguruan tinggi bisa mempersiapkan diri supaya bisa beradaptasi dengan perubahan yang ada di era society 5.0.

Kata Kunci: Tantangan; Perguruan Tinggi; Era Society 5.0

Abstract

The purpose of this research is to find out the challenges faced by universities in Indonesia in facing the era of society 5.0. So that through this research all stakeholders in tertiary institutions get a new perspective and immediately adapt to existing developments. This study used the systematic literature review (SLR) method in the last 6 years, namely 2018- 2023, and obtained 10 articles that match the inclusion criteria and exclusion criteria. The results of the literature review show that the challenges faced by universities in facing the era of society 5.0 are, first, how can the curriculum used be able to answer the needs of the era of society 5.0. Second, the challenge is how to make tertiary institutions have adequate infrastructure, especially in the field of information and communication technology to accommodate the rapid needs of the digital world in the era of society 5.0, especially in the learning process. Third, the challenges in preparing educators or lecturers to have skills in the digital and creative world. Fourth, the challenge of adjusting the competencies that must be possessed by graduates so that they are in accordance with what is needed by the world of work and in order to produce young entrepreneurs. The results of this study help provide support to stakeholders in tertiary institutions, especially policymakers in formulating new policies and adapting to new changes caused by the era of society 5.0 so that universities can prepare themselves so that they can adapt to changes that exist in the era of society 5.0.

Keywords: Challenge; College, Era Society 5.0

Introduction

Challenges are an inevitability that cannot be separated from our lives. Talking about challenges, they are always closely related to change. When we face a challenge or problem we are required to change, both in terms of how we respond to it and in terms of developing strategies to overcome it. It's the same with universities, as the highest education providing institutions in Indonesia. Universities must always be ready for all existing challenges and changes. Higher education is an institution providing the highest formal education. As the highest educational institution in Indonesia, universities are responsible for producing high quality human resources. Of course, carrying out this responsibility is not easy. There needs to be collaboration or cooperation from all higher education stakeholders and the need for an open attitude in facing the challenges that occur. The closest challenge that universities must face is the era of society 5.0. Era Society 5.0 is an era and concept of society that is human-centered and technology-based (Fukuyama Mayumi 2018). In the era of society 5.0, society is faced with technology that allows access to virtual space that feels like physical space.

The concept or Era Society 5.0 is a refinement of previously existing concepts. The party who first coined the concept of society 5.0 was the Japanese government. According to the Japanese cabinet office, society 5.0 is defined as a human-centered society that balances economic progress with solving social problems through a system that integrates cyberspace and physical space. Society 5.0 has the concept of big data technology which is collected by the internet of things (IoT), then transformed by artificial intelligence (AI) (Özdemir and Hekim 2018) into something that can help society so that life becomes better. The concept of society 5.0 is not only limited to the manufacturing sector but is also related to solving social problems with the help of the integration of physical space and virtual space. Society 5.0 will have an impact on all aspects of life starting from health, urban planning, transportation, agriculture, industry and

education. Society 5.0 is a new order concept for society.

Methods

To conduct further studies regarding the challenges of higher education in this digital era, this research was carried out with a literature review by studying and reviewing relevant topics based on previous research. The concepts discussed in this research literature review include definitions, consequences and research developments. Based on the explanation above, a reference search was carried out in the form of previous research through online databases.

In conducting a reference search using technical bibliometric data analysis with the help of VosViewer 1.6.1.9 software which aims to map and visualize the relationship between the topic of higher education challenges in the era of society 5.0 and other topics. so that reference searches are more in-depth and easier to do. However, not all previous research can be used as a reference in this research. Literature Review. There are certain criteria that must be met, as follows:

1. Previous research is a scientific article;
2. Previous research comes from scientific journals;
3. Previous research published in 2018-2023
4. Previous research of at least 50 scientific articles with the help of Google Scholar and Mendeley databases
5. Previous research with the keywords challenges of higher education and the era of society 5.0

Results and Discussion

This research aims to examine further in relation to the challenges of higher education in the era of society 5.0. direct source of knowledge in the 2018-2023 period. In this research, researchers used VOSviewer to analyze data by presenting 2 aspects: co-authorship and co-occurrence. VOSviewer is a software tool for building and visualizing bibliometric networks. These networks may for example include journals, researchers, or

individual publications, and can be constructed based on citations, bibliographic aggregation, co-citations, or co-author relationships. The results of the analysis carried out can be seen in the explanation below.

1. Co-Authorship

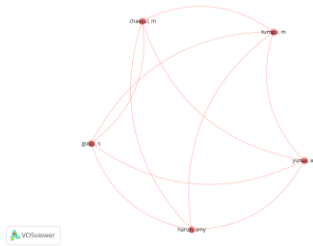


Figure 1. Co-Writing (Related)

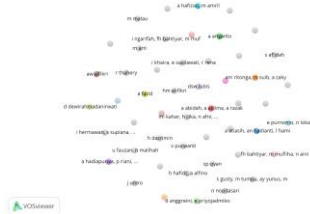


Figure 2. Co-Writing (Unrelated)

Figures 1 and 2 have been presented regarding authors with connected networks and those without connected networks. The authors are networked, which means they have connections in the research. The author's network in Figure 1 only has one network color, namely red, which means the network is the strongest network. Meanwhile, in Figure 2, the writer takes the topics of challenges and the era of society 5.0 as related but not related to one another. In this article, a total of 35 authors were studied.

2. Co-Occurrence

Network Visualization explains the visualization of network images of research topics that have been collected, where at the bottom there are descriptions of items (words visible in the visualization), clusters (clusters of

research topics that have been collected are differentiated by color), links (total related links) and total links strength (Norfai, 2021).

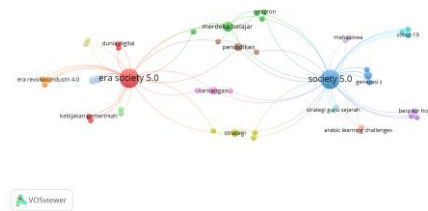
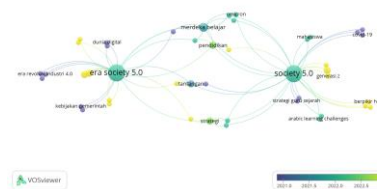


Figure 3. Co-Occurrence (Keywords)

In Figure 4 it can be seen that the display presented in the visualization of the network of keywords for higher education challenges which is the research topic shows that there are many variations in the appearance of keywords. Analyze this It is known that there are many possible clusters that can be researched and studied in more depth regarding the research topic of higher education challenges. So that future research can connect the challenges of higher education with other topics as a form of visualization in the image above.

Overlay Visualization explains renewal based on color, which means that the brighter the color, the higher the level of renewal (Norfai, 2021)



Gambar 4. Visualisasi Overlay Co-Accurance (Kata Kunci)

This can be seen in Figure 4 which contains an overlay display of keywords that grow per year. The results show that the darker the color of the keyword cluster, the longer the research search will take. On the other hand, the brighter the color of the keyword cluster, the more recent the research search. The research

topic regarding the challenges of higher education in the Era of Society 5.0 shows that in recent years there is still very little research and has not been studied in further depth, so future research is expected to provide research developments regarding even more relevant research topics

Conclusion

The challenges of higher education in the era of society 5.0 are an inevitability that inevitably must be faced. The challenges of higher education in the era of society 5.0 are first, ensuring the curriculum is in accordance with what is needed in the era of society 5.0. Second, prepare adequate digital infrastructure. Third, prepare teaching staff or lecturers who are digitally competent and creative. Fourth, adapt graduate competencies to the world of work and entrepreneurship. The challenges of higher education in the era of society 5.0 have two sides, namely the positive side and the negative side. If we face this challenge wisely, carefully and are ready to take transformative steps, this challenge will turn into a profitable potential. On the other hand, if this challenge is not faced wisely and people are unwilling to make changes, it will have a negative impact.

The results of this research help provide support to stakeholders in higher education, especially policy makers, in formulating new policies and adapting to new changes caused by the era of society 5.0, so that universities can prepare themselves so they can adapt to the changes that exist in the era of society 5.0

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