Utilisation of ChatGPT's Artificcial Intelligence in Improving the Quality and Productivity of Lecturers' Work

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Abstrak

Perkembangan teknologi komunikasi dan informasi kini semakin pesat, khususnya dalam era digital. Dalam dunia pendidikan, dosen sebagai pihak yang memiliki peran penting dalam proses belajar mengajar, perlu mengikuti perkembangan teknologi, seperti ChatGPT. penelitian ini bertujuan untuk mengungkapkan secara lebih mendalam mengenai manfaat ChatGPT dalam dunia pendidikan, khususnya dalam meningkatkan kualitas pendidikan dan produktivitas kerja seorang dosen. Penelitian ini bersifat kualitatif. Teknik pengumpulan data meliputi menyimak dan mencatat informasi penting untuk melakukan analisis data melalui reduksi data, display data, dan penarikan kesimpulan. Studi ini menyimpulkan bahwa dalam dunia pendidikan, penggunaan teknologi informasi dan kecerdasan buatan seperti ChatGPT dapat memberikan manfaat yang signifikan bagi para dosen. ChatGPT dapat membantu para dosen dalam banyak hal, seperti penyusunan materi kuliah, memberikan bimbingan kepada mahasiswa, melakukan penelitian, meningkatkan kualitas karya tulis, serta meningkatkan efisiensi dan produktivitas kerja.
Kata Kunci: *ChatGPT, Kualitas, Produktivitas, Kerja, Dosen*.

Abstract

The development of communication and information technology is now increasingly rapid, especially in the digital era. In the world of education, lecturers as parties who have an important role in the teaching and learning process, need to keep up with technological developments, such as ChatGPT. this study aims to reveal more deeply the benefits of ChatGPT in the world of education, especially in improving the quality of education and work productivity of a lecturer. This research is qualitative in nature. Data collection techniques include listening and recording important information to conduct data analysis through data reduction, data display, and conclusion drawing. This study concludes that in the world of education, the use of information technology and artificial intelligence such as ChatGPT can provide significant benefits for lecturers. ChatGPT can help lecturers in many ways, such as preparing lecture materials, providing guidance to students, conducting research, improving the quality of papers, and increasing work efficiency and productivity.
Keywords: *ChatGPT, Quality, Productivity, Work, Lecturer.*

INTRODUCTION

The research background of this study stems from the rapid development of communication and information technology, especially in today's digital era (Kraugusteeliana et al., 2022). In the world of education, lecturers as parties who have an important role in the teaching and learning process, need to keep up with these technological developments in order to maximise their potential in providing quality education (Ausat, 2022).

In this case, ChatGPT as one of the artificial intelligence technologies that has the ability to understand human language naturally, provides an opportunity to be applied in the world of education as a tool in

improving the quality of education and work productivity of a lecturer. The utilisation of ChatGPT in education can help lecturers in doing several things, such as providing explanations that are more easily understood by students, providing suggestions in developing teaching materials that are more interesting and interactive, and assisting in evaluating student learning progress (Mhlanga, 2023); (Tlili et al., 2023) and (Shidiq, 2023).

However, so far there have not been many studies that reveal in detail the benefits of ChatGPT in improving the quality of education and work productivity of a lecturer. Therefore, this study aims to reveal in more depth the benefits of ChatGPT in the world of education, especially in improving the quality of education and work productivity of a lecturer. It is hoped that the results of this research can make a positive contribution to the world of education, especially in optimising the use of artificial intelligence technology to improve the quality of education and work productivity of a lecturer.

METHOD

This investigation utilised a desk research approach, where the researcher relied on secondary sources of information to facilitate data collection, rather than conducting primary research in the field. Various reference materials were consulted to ensure the smooth conduct of the research. Literature was sourced from online media and databases available through journal portals that correspond to keywords relevant to this discourse, specifically ChatGPT, education, productivity, and lecturer performance. The authors utilised a flexible approach in identifying relevant reference sources, without limiting themselves to specific journal portals or online media. We did not limit ourselves to referring only to Emerald Insight, Research Gate, and Elsevier journal portals. This article centres on the benefits of ChatGPT in improving the quality and productivity of lecturers' work in higher education, with deliberate emphasis on certain keywords to avoid obscuring the main discourse. The search of scientific journals, articles, and publications mainly includes articles that have been published from 2022 to the present. During the source collection process, we used keywords to conduct searches on various publication platforms. However, not all downloaded papers, journals, and publications will be used, but only those that are most relevant to the benefits of ChatGPT and its relation to the quality of education and performance productivity of a lecturer. This article incorporates a total of 18 references.

This research is classified as a form of qualitative research. The data collection process involved the use of techniques such as careful listening and careful recording of relevant information. This data was then analysed through the methods of data reduction, data presentation, and conclusion drawing, with the aim of gaining a comprehensive understanding of the literature study that is the focus of this research. In the data reduction stage, the process undertaken is to simplify, classify, and discard irrelevant data in a way that makes it easier to gain significant insights and increase the ease of drawing conclusions. The need to analyse data through the reduction stage arises from the considerable volume and complexity of the data. The reduction stage was conducted to determine the relevance of the data to the end goal. Initially, a total of 31 references were obtained. However, after going through this initial process it became 18 references. Next, the data will be presented through display. This stage is the next step of the data reduction stage, which involves organising the data systematically to facilitate understanding and enable conclusion drawing. The mode of data representation used in this context is in the form of written discourse (in the form of field notes). Presentation of this data facilitates the organisation and arrangement of data in a pattern of relationships. The final phase is drawing conclusions from the data. This phase marks the conclusion of the qualitative data analysis methodology we used, where we examine the results of data reduction and data display, ensuring that they remain aligned with the intended purpose of the analysis. The purpose of this stage is to derive meaning from the data collected by identifying correlations, similarities, or differences to formulate resolutions to the issues at hand. The sources used were deemed reliable to derive conclusions. This endeavour aims to obtain reliable and valid conclusions, thus facilitating understanding.

RESULTS AND DISCUSSION

A lecturer has a very important role in education. His main task is to teach and educate students to achieve predetermined learning objectives (McKimm & Swanwick, 2009); (Priantin, 2020) and (Yanto, 2021). In performing their duties, a lecturer is also required to be able to provide direction and guidance to students in completing academic and research assignments. However, with the development of information technology, the demand to improve the quality of education is increasing (Ausat, 2023). Therefore, lecturers are also required to keep up with technological developments and utilise them in the learning and research process.

ChatGPT is one of the latest technologies that can help lecturers in carrying out their tasks (AlAfnan et al., 2023). ChatGPT is an artificial intelligence engine developed by OpenAI. In its development, ChatGPT was trained using big data from the internet, so that it has the ability to understand human language and produce text similar to human writing. With this ability, ChatGPT can be used to help lecturers in various aspects of their career.

One of the benefits of ChatGPT is in assisting lecturers in the preparation of course materials. In the process of preparing lecture materials, lecturers often need references or additional reading materials. ChatGPT can assist lecturers in finding relevant and up-to-date references or reading materials (Adetayo, 2023) and (Khan et al., 2023). By using keywords provided by the lecturer, ChatGPT will search for references or reading materials that match the lecturer's request. This will speed up the process of preparing lecture materials, so that lecturers can be more effective and efficient in teaching. In addition, ChatGPT can also help lecturers in providing guidance to students. In the tutoring process, students often ask questions that are difficult to answer. With its ability to understand human language, ChatGPT can assist lecturers in answering student questions. Lecturers can input questions asked by students into ChatGPT, and ChatGPT will search for relevant answers from the internet. Lecturers can then select the most appropriate answer to explain to students. By using ChatGPT, lecturers can provide more effective and targeted guidance to students (Halaweh, 2023); (Yan, 2023) and (Kasneci et al., 2023).

On the other hand, ChatGPT can also help lecturers in conducting research. In the research process, lecturers often need additional references or reading materials that are relevant to the research topic being conducted. With its ability to find references or relevant reading materials, ChatGPT can help lecturers in accelerating the research process. In addition, ChatGPT can also assist lecturers in analysing data or research results that have been obtained (Taecharungroj, 2023) and (Kung et al., 2023). Lecturers can enter data or research results into ChatGPT, and ChatGPT will conduct analyses and provide relevant recommendations to interpret the data or research results. This will assist lecturers in gaining a better understanding of their research results. Furthermore, ChatGPT can also help lecturers improve the quality of their written work. In the writing process, lecturers often have difficulty in writing in good and correct language, as well as choosing the right words to express the ideas they want to convey (Dwivedi et al., 2023). With its ability to understand human language, ChatGPT can help lecturers in writing with good and correct language, and choosing the right words to express the ideas they want to convey. Lecturers can enter their draft writing into ChatGPT, and ChatGPT will provide relevant recommendations or suggestions to improve the writing. This will help lecturers to improve the quality of their writing.

In addition to the benefits mentioned above, ChatGPT can also help lecturers improve their work efficiency and productivity. With its ability to find relevant references or reading materials, answer student questions, analyse data or research results, and provide suggestions for improving papers, ChatGPT will help lecturers complete their tasks more quickly and efficiently. This will help lecturers optimise their time and energy.

Overall, the use of ChatGPT can provide many benefits in helping a lecturer's career. Lecturers can utilise ChatGPT to assist in the preparation of course materials, provide guidance to students, conduct research, improve the quality of written work, and increase the efficiency and productivity of their work. By utilising existing information technology, lecturers will be able to provide better quality education and benefit students.

CONCLUSION

In the world of education, the use of information technology and artificial intelligence such as ChatGPT can provide significant benefits for lecturers. ChatGPT can help lecturers in many ways, such as preparing lecture materials, providing guidance to students, conducting research, improving the quality of papers, and increasing work efficiency and productivity. Lecturers who utilise information technology and artificial intelligence such as ChatGPT will be able to provide better quality education and benefit students.

In order to improve the quality of education and work productivity of a lecturer, there are several suggestions that can be done by utilising ChatGPT, including: First, create more efficient and structured teaching materials by utilising ChatGPT to generate material summaries, create practice questions, or create study guides that are easier to understand. Second, using ChatGPT to evaluate scientific papers, such as final assignments or journal publications, so as to ensure the accuracy and quality of the text. Third, increasing creativity in producing scientific papers by utilising ChatGPT to broaden horizons and enrich references in making scientific papers. Fourth, using ChatGPT as a personal assistant to answer questions and provide advice in completing academic tasks. Finally, attending training and courses to optimise the use of ChatGPT as a tool in improving the quality of education and work productivity.

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