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AN ANALYSIS OF CHATGPT RESPONSE VARIATIONS TO IDENTICAL PROMPTS ACROSS DIFFERENT DEVICES: A CASE STUDY IN INFORMATICS EDUCATION

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Abstract

The development of artificial intelligence (AI) in education has brought about various innovations, one of which is using ChatGPT as a learning tool. However, the diversity of answers provided by ChatGPT when used on different devices is still a critical question. This study aims to analyze the variation in ChatGPT's answers to the same prompt content when used on computer devices with different specifications. This research method uses an experimental approach by comparing ChatGPT output results on five types of devices with different operating systems, processors, and BIOS. The analysis is based on the level of similarity of the sentence and the meaning of the answer, with the categories "very different" (20% similarity), "different" (50% similarity), "almost the same" (70% similarity), and "same" (90% similarity). The results show a significant variation in the answers produced, with some devices giving almost identical responses while others show differences in sentence structure and information arrangement. Hardware factors, including processor type and operating system, are thought to contribute to these differences. The implications of these findings are highly relevant in the context of secondary education, where the use of ChatGPT as a learning tool is increasing. Variations in answers can lead to differences in understanding among students using devices with different specifications, thus requiring more attention from educators and AI technology developers. This study makes an important contribution in highlighting the challenges and opportunities of applying AI in education. Recommendations include standardizing the use of AI in the classroom and developing AI models that are more consistent in responding across devices. Thus, fairness and effectiveness in using AI in education can be continuously improved..

Keywords:
ChatGPT; answer variations; artificial intelligence; secondary education; device specifications.

Abstrak

Perkembangan kecerdasan buatan (AI) dalam dunia pendidikan telah menghadirkan berbagai inovasi, salah satunya melalui pemanfaatan ChatGPT sebagai alat bantu pembelajaran. Namun, keberagaman jawaban yang diberikan oleh ChatGPT ketika digunakan pada perangkat yang berbeda masih menjadi pertanyaan kritis. Penelitian ini bertujuan untuk menganalisis variasi jawaban ChatGPT terhadap konten prompt materi yang sama ketika digunakan di perangkat komputer dengan spesifikasi berbeda. Metode penelitian ini menggunakan pendekatan eksperimental dengan membandingkan hasil keluaran ChatGPT pada lima jenis perangkat dengan perbedaan sistem operasi, prosesor, dan BIOS. Analisis dilakukan berdasarkan tingkat kesamaan kalimat dan makna jawaban, dengan kategori "sangat berbeda" (20% kesamaan), "berbeda" (50% kesamaan), "hampir sama" (70% kesamaan), dan "sama" (90% kesamaan). Pada eksperimen ini juga digunakan chatGPT versi 3.5 free yang ada pada laptop siswa. Hasil penelitian menunjukkan bahwa terdapat variasi yang cukup signifikan dalam jawaban yang dihasilkan, dengan beberapa perangkat memberikan respons yang hampir identik, sementara yang lain menunjukkan perbedaan struktur kalimat dan susunan informasi. Faktor perangkat keras, termasuk jenis prosesor dan sistem operasi, diduga memiliki

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kontribusi terhadap perbedaan ini. Perangkat dengan sistem operasi dan prosesor terbaru menunjukkan kesamaan jawaban ChatGPT hingga 90%, sedangkan perangkat dengan spesifikasi rendah cenderung menghasilkan variasi lebih besar. Meskipun belum ada bukti empiris kuat, temuan ini mengindikasikan bahwa spesifikasi perangkat dapat memengaruhi konsistensi respons AI. Implikasi dari temuan ini sangat relevan dalam konteks pendidikan menengah, di mana penggunaan ChatGPT sebagai alat bantu belajar semakin meningkat. Variasi jawaban dapat menyebabkan perbedaan pemahaman di antara siswa yang menggunakan perangkat dengan spesifikasi berbeda, sehingga memerlukan perhatian lebih dari pendidik dan pengembang teknologi AI. Penelitian ini memberikan kontribusi penting dalam menyoroti tantangan dan peluang penerapan AI dalam pendidikan. Rekomendasi yang diberikan meliputi standarisasi penggunaan AI dalam kelas serta pengembangan model AI yang lebih konsisten dalam memberikan respons di berbagai perangkat. Dengan demikian, keadilan dan efektivitas pemanfaatan AI dalam dunia pendidikan dapat terus ditingkatkan).

Kata Kunci:

ChatGPT; variasi jawaban; kecerdasan buatan; pendidikan menengah; spesifikasi perangkat

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1. INTRODUCTION

In the rapidly evolving digital era, Artificial Intelligence (AI) has become an integral component across various sectors, including education (Novian et al., 2024; Sidiq et al., 2024). One of the most notorius AI innovations is ChatGPT, a large language model developed by OpenAI (Syanzani et al., 2024). ChatGPT is designed to understand and generate human-like text, making it applicable across a wide range of uses—from virtual assistants to learning support tools. Its ability to answer questions and provide information makes it particularly appealing for educational settings, especially in informatics learning at the senior high school level.

Despite its considerable potential, concerns have emerged regarding the consistency and accuracy of ChatGPT's responses. Previous studies indicate that AI models like ChatGPT can sometimes produce inaccurate or inconsistent answers. For instance, Kozaily et al. (2024) found that while ChatGPT answered 90% of questions accurately, notable variations in response consistency were observed. This raises critical questions about the model's reliability in educational environments, where precision and coherence are essential. Moreover, technical factors such as hardware specifications may influence the model's performance and output. Components like the central processing unit (CPU) and graphics processing unit (GPU) play a pivotal role in data processing and can affect how information is presented to users (Simanullang, 2021; TRG Datacenter, 2024). Differences in hardware—such as processor type or memory capacity—can potentially impact the behavior of AI systems. However, limited research has been conducted to investigate how these hardware variations influence the output of AI models like ChatGPT.

This research gap provides the basis for a deeper exploration of how hardware differences may affect the quality and consistency of ChatGPT's responses. Understanding whether and to what device specifications influence AI outputs is vital for ensuring effective and consisten implementation of this technology in educational contexts. If ChatGPT's responses vary depending on the device used, this could result in disparities in learning outcomes among students. Additionally, although ChatGPT is a powerful tool, it has limitations that users must For example, it may provide responses that sound convincing but are actually incorrect, and it is sensitive to variations in how input is phrased (Gill et al., 2024). By examining how hardware influences ChatGPT's output, this study seeks to better understand the limitations and potential of the model in educational contexts.

Moreover, AI literacy is essential for effectively utilizing this technology. Users—especially educators and students—must understand how AI works and its limitations. This understanding will help them critically assess the answers provided by ChatGPT and avoid accepting all information as absolute truth (Darman, 2024; Fu et al., 2024). Therefore, this research contributes not only to the technical understanding

of how hardware interacts with AI output but also to the development of digital and AI literacy among users.

In the context of informatics learning at SMA Negeri 1 Gorontalo, ChatGPT can be a significant support tool. However, without a clear understanding of how technical factors such as hardware affect AI output, implementing this technology may introduce new challenges. For example, if students use devices with different specifications and receive varying answers from ChatGPT, it can lead to confusion and perceived unfairness in the learning process. Thus, this study aims to fill that gap by exploring the extent to which hardware variation influences ChatGPT's responses in informatics education. By understanding the interaction between hardware and AI output, educators can make more informed decisions about when and how to use ChatGPT in learning. Furthermore, the results of this study may provide valuable insights for AI developers to improve the design and implementation of their models to be more consistent and reliable—regardless of the hardware used by end users.

Overall, this research highlights the importance of understanding the factors that affect AI performance and output in educational contexts. By exploring how hardware influences ChatGPT's responses, we can ensure that this technology is used effectively and fairly in the learning process and foster greater AI literacy among its users.

2. LITERATURE REVIEW

In recent years, the development of artificial intelligence (AI) has seen significant growth, especially in the advancement of large language models like ChatGPT. This model is designed to generate human-like text, allowing for more natural interactions between humans and machines. However, the effectiveness and consistency of ChatGPT's responses can be influenced by various factors, including the hardware specifications of the device being used. The following literature review discusses the impact of hardware on AI performance, the variability of ChatGPT's responses across different devices, and the implications of these factors in the context of informatics education.

2.1. The Impact of Hardware on AI Performance

Hardware plays a critical role in the performance of AI systems (Ardiansyah, 2022). Components such as central processing units (CPUs), graphics processing units (GPUs), and specialized AI accelerators are designed to process large volumes of data efficiently. Selecting the appropriate hardware can significantly affect the speed and efficiency of AI model processing, which in turn influences the responsiveness and accuracy of the generated output. For example, GPUs and TPUs (Tensor Processing Units) have been developed to handle AI tasks more efficiently, enabling faster and more effective parallel processing (Intel.com, 2024b). dditionally, robust AI infrastructure—including hardware and software tailored for AI and machine learning (ML)—enables developers to build and deploy applications such as chatbots more effectively. Reliable infrastructure is essential for processing large-scale data and operating AI models with high efficiency (IBM, 2024).

Research examining the influence of hardware specifications onaffect the variability of ChatGPT's responses is limited. However, some studies suggest that hardware-related factors such as operating systems, processors, and BIOS configurations may impact AI performance and output consistency. For instance,example, Arifdarma (2023) notes that using ChatGPT in education can enhance learning efficiency, but it also raises concerns about the accuracy and validity of AI-generated results (Diantama, 2024; Syaifullah & Gunawan, 2024). In the context of hardware, Intel reports that the latest processors equipped with dedicated AI and ML processing units—such as TPUs—can improve AI workload performance. This suggests that hardware specifications may influence AI performance, including the consistency and accuracy of its responses (Intel.com, 2024a; University, 2024).

Though there is no conclusive empirical evidence directly linking hardware specifications to variations in ChatGPT responses, these findings provide a strong foundation for further investigation. It is crucial for educators and AI technology developers to consider hardware factors when implementing AI in educational settings to ensure consistency and fairness in the learning process.

2.2. Variability of ChatGPT's Responses Across Devices

As a large language model, ChatGPT is designed to understand and respond to user input in a way that mimics human conversation. However, its responses can vary based on the input provided and conversational context (Pratiwi et al., 2024). Additionally, ChatGPT's ability to regenerate responses allows for variability even with identical prompts, which may affect the consistency of information provided to users (Egsaugm, 2023). In educational contexts, suchthis variability can influence the learning process. For example, if students rely on ChatGPT for information or assignment assistance, inconsistent responses may lead to confusion or uncertainty. Therefore, it is important to understand how factors like hardware specifications and user interaction influence the output generated by ChatGPT.

2.3. Implications for Informatics Education

The use of ChatGPT in informatics education offers opportunities to enhance students' understanding through more dynamic and personalized interactions. However, the variation in responses provided by ChatGPT necessitates the development of AI literacy among educators and students. Users must recognize that while ChatGPT can provide a wide range of information, not all responses are guaranteed to be accurate or contextually appropriate. Therefore, verifying information and critically interpreting AI outputs are essential skills for effectively leveraging this technology. Additionally, AI-supporting infrastructure—both hardware and software—is vital for successfully integrating AI in education. Reliable infrastructure is crucial for handling large data sets and executing AI models efficiently, which can enhance learning productivity and effectiveness (Deriota.com, 2024).

3. METHOD

This study employs a qualitative method using a content analysis approach to explore the variation in responses generated by ChatGPT when provided with identical prompts executed on different devices. This approach aims to understand the patterns of response variation based on the hardware factors used by students in the context of informatics learning. Content analysis was chosen as it allows the researcher to examine the characteristics of ChatGPT's responses and assess the extent of discrepancies that emerge within an educational setting.

The research was conducted at SMA Negeri 1 Gorontalo, focusing on the subject Social Impacts of Informatics. The participants included 81 tenth-grade students, each using their personal laptops with various brands and specifications. Data were collected through a direct classroom experiment, where each student received a predefined prompt format and was instructed to input it into ChatGPT simultaneously. Once the system generated responses, the outputs from each device were collected and analyzed to identify variation patterns. Observations were also made to record technical aspects, such as processing speed and any possible differences in information presentation by ChatGPT.

The data were analyzed using qualitative content analysis. Each ChatGPT response from the students' devices was categorized based on similarities in structure, text length, information accuracy, and potential variation in content delivery. The analysis was conducted manually by comparing recurring patterns in the responses and identifying potential factors contributing to the observed variations. It is important to note that the version of ChatGPT used by the students on their personal laptops was ChatGPT version 3.5 (free version). Table 1 outlines the content components included in the ChatGPT prompt and their corresponding cognitive domains based on Bloom's Taxonomy.

Tabel 1. Content Blueprint *promt*

Question No.	Cognitive Level	Content	Question Form
1.	C2 (Understanding)	Briefly explain what is meant by the social impact of informatics and provide examples of its application in daily life.	Objective
2.		Explain the role of information technology in creating a global market for small and medium-sized enterprises.	Objective
3.	C3 (Implementation)	How would you apply the concept of ethics in the use of social media and information technology to minimize its negative effects	Objective

		on teenagers' mental health? Explain concrete actions that can be taken to promote responsible use.	
4.		How does information technology affect the labor market and create new economic opportunities?	Objective
5.		Mention two legal challenges faced by major tech companies related to their business practices in informatics products.	Objective
6.	C4 (Analysis)	How does information technology influence social interaction among teenagers? Describe behavioral changes and communication patterns resulting from the use of social media and digital communication technologies.	Objective
7.		Identify and analyze the positive and negative impacts of e-commerce growth on the sustainability of small and medium enterprises within a local community.	Objective
8.		Analyze how the digitalization of education has transformed traditional learning paradigms. Explain its social impact on student engagement, the role of teachers, and equitable access to education.	Objective
9.		Explain the role of data privacy policies in influencing the adoption of information technology in the global market. Analyze its impact on business growth and data security.	
10.		How do changes in data privacy policies in the global market affect informatics products? Evaluate the economic implications of these policy changes for tech businesses.	Objective

Source. Primary research data (2024)

4. RESULTS

The results of the study, obtained from the experiment conducted at SMA Negeri 1 Gorontalo on the variation in responses generated by ChatGPT when receiving identical prompts from different devices, are presented based on the types of computer devices used by the students. Each student used a prompt format predetermined by the researchers to ensure uniformity in the instructions submitted to the system. Although all students entered the same command, variations in hardware specifications of the devices used were identified as potential factors influencing the output generated by ChatGPT. The findings were analyzed by examining the similarity between responses across devices, the structure and length of the generated texts, and how well the responses aligned with the content outlined by the teacher in the instructional module. Additionally, this study explores whether any discernible patterns emerge within the variations and investigates the factors most likely contributing to these differences.

4.1. Alignment of ChatGPT's Responses with the Teacher's Instructional Material

Based on the results presented in Table 2, it can be concluded that the responses generated by ChatGPT across various devices show a relatively high degree of alignment with the content found in the teacher's instructional module. Nearly all questions received responses categorized as "Fairly Appropriate" or "Appropriate," with no significant differences between devices. This indicates that despite students using devices of different brands and specifications, the variation in ChatGPT's output remains minimal and within acceptable limits according to educational standards.

Tabel 2. ChatGPT's Responses and Their Alignment with the Teaching Materials

NO	Question	Device Name				
		Asus X441 BA	**Asus A409J A**	**Acer A514-56P**	**Asus E402 YA**	**Asus X441 M**
1	riefly explain what is meant by the social impact of informatics and provide examples of its application in daily life.	**CS**	**CS**	**CS**	**CS**	**CS**
2	Mention two positive impacts of information technology in everyday life.	**CS**	**CS**	**S**	**CS**	**S**
3	What is meant by data privacy in the context of social media use?	**CS**	**CS**	**CS**	**CS**	**CS**

4	Explain how information technology has transformed the entertainment and art industries, and its impact on society.	**CS**	**CS**	**CS**	**CS**	**CS**
5	Mention two negative impacts of using information technology on health.	**S**	**S**	**S**	**CS**	**CS**
6	How does information technology affect the job market and create new economic opportunities?	**CS**	**CS**	**CS**	**CS**	**CS**
7	What is the role of information technology in creating a global market for small and medium-sized businesses?	**CS**	**CS**	**CS**	**CS**	**CS**
8	Why is it important to have regulations and laws governing data privacy in information products?	**CS**	**CS**	**CS**	**CS**	**CS**
9	Mention two legal challenges faced by large tech companies regarding their business practices in information products.	**CS**	**CS**	**CS**	**S**	**CS**
10	Mention two positive and two negative impacts of information technology innovation on the business sector.	**CS**	**CS**	**CS**	**CS**	**S**

Source: Primary research data (2024)

Analysis of the responses reveals that ChatGPT provides consistent and relevant information on fundamental concepts such as the social impacts of informatics, data privacy, and the role of technology in industry, employment, and business. No responses were found to be entirely inaccurate or deviated from the taught material. However, for certain questions—particularly those about the negative impacts of information technology on health (e.g., question 5)—slight differences in appropriateness were noted across devices. Some responses were rated as "Appropriate," while others were deemed "Fairly Appropriate," possibly due to minor variations in sentence formulation or examples provided by ChatGPT on each device.

These findings suggest that while generative AI models like ChatGPT tend to produce similar responses to the same prompt, minor variations may still occur in writing style, response structure, and the emphasis of information delivered. Such differences may be influenced by hardware specifications or system-level optimizations for text processing. However, these discrepancies do not significantly impact students' comprehension, of the material, as all responses remain within the acceptable range according to instructional module standards. This confirms that ChatGPT can serve as a reliable supplementary learning tool, offering relevant responses aligned with instructional content. Nonetheless, continuous oversight and validation by educators are essential to ensure that the information accurately reflects the intended learning context.

4.2. Variations in ChatGPT Responses Based on Computer Device Type

Tabel 3. The results of the variation in answers provided by ChatGPT based on the type of computer device.

	Device Type				
	Asus X441BA	**Asus A409JA**	**Acer A514-56P**	**Asus E402YA**	**Asus X441M**
Sistem Operasi	Windows 10 home single language 64-bit (10.0, Build 190245)	Windows 11 home single language 64-bit (10.0, Build 22631)	Windows 11 home single language	Windows 10 home single language 64-bit (10.0, Build 19045)	Windows 11 home single language 64-bit (10.0, Build 22631)
Processor	AMD A4-9125 RADEON R3, 4 Compute Cores 2C+2G (2 CPUs)	Intel (R) CORE (TM) i3-1005G1 CPU @ 1.20 GHz (4CPUs)	13th Gen Intel (N Core Tm) i5-1335U 1.30 GHz	AMD E2-7015 APU with, AMD Radeon R2 Grapik (2 CPUs)	Intel (R) COLERON (R) N4020 CPU @ 1.10 GHz (2CPUs)

Bios	X441BA.310	X409JA.310	226313447	E402YA.304	X441MAR.300
Device	**Level of Variation**				
Asus X441BA	Same	Different	Almost Same	Almost Same	Different
Asus A409JA	Very Different	Same	Almost Same	Almost Same	Different
Acer A514-56P	Different	Different	Same	Very Different	Different
Asus E402YA	Different	Almost Same	Different	Same	Very Different
Asus X441M	Almost Same	Very Different	Different	Different	Same

Source: Primary research data (2024)

The analysis in Table 3 shows that responses generated by ChatGPT vary across different computer devices in terms of sentence structure and semantic similarity, though the content generally aligns with the instructional material. The table indicates that some devices produced highly similar responses, while others showed more substantial variation.

For example, the Asus X441BA generated responses similar to those from the Acer A514-56P and Asus E402YA, with similarity levels between 70% and 90%. In contrast, devices like the Asus A409JA and Asus X441M showed greater discrepancies, with similarity levels falling to 50% or even as low as 20%, categorized as "Different" to "Very Different." This suggests that while they operate on the same language model, variations in output can still occur depending on the device used.

Factors such as device specifications, operating systems, and BIOS configurations can affect how the AI model processes and generates responses. For example, the Asus A409JA showed consistent results with certain devices, but significant differences emerged when compared to others like the Asus X441BA and Asus X441M. This suggests that the AI model may respond differently depending on the technical environment in which it is deployed.

Overall, while structural and stylistic variations were observed, the core meaning of ChatGPT's responses remained suitable for educational use. These findings also indicate that higher device specifications or newer operating systems do not necessarily ensure more consistent output. Therefore, when using ChatGPT as an educational tool, educators should validate and review AI-generated responses to prevent any variations from causing discrepancies in student understanding. Below are selected screenshots of ChatGPT responses on students' devices:

Based on the analysis results, the Acer A514-56P and Asus X441BA devices demonstrated a high level of response similarity, reaching up to 90%, and were therefore categorized as "Identical." Although these devices are from different manufacturers, they share relatively comparable specifications, including Windows 11 as the operating system and recent-generation Intel processors. This suggests that stable and modern system configurations may contribute to the consistency of ChatGPT's output. Meanwhile, devices such as the Asus A409JA and Asus X441M exhibited a 70% similarity level and were categorized as "Nearly Identical." These devices differ significantly in BIOS versions and processor architecture (e.g., from Intel i3 to Celeron), which may explain the structural variations in responses, even though the conveyed meaning remains similar.

Conversely, devices like the Axioo MyBook 14 and HP 14s-dq0508TU showed greater variation, falling within the "Different" (50%) to "Very Different" (20%) categories. This suggests that on devices with older processors or outdated BIOS versions, ChatGPT's responses tend to be less consistent, though still semantically related to the same topic.

These findings imply that even when all students use the same version of ChatGPT (3.5) and receive identical prompts, technical device specifications such as operating systems, processors, and BIOS configurations may influence how the responses are rendered on the user interface, rather than affecting the AI model itself. While there is no direct empirical evidence to suggest that device specifications entirely determine response quality, these results highlight the importance of standardizing or regulating devices when implementing ChatGPT in classroom settings.

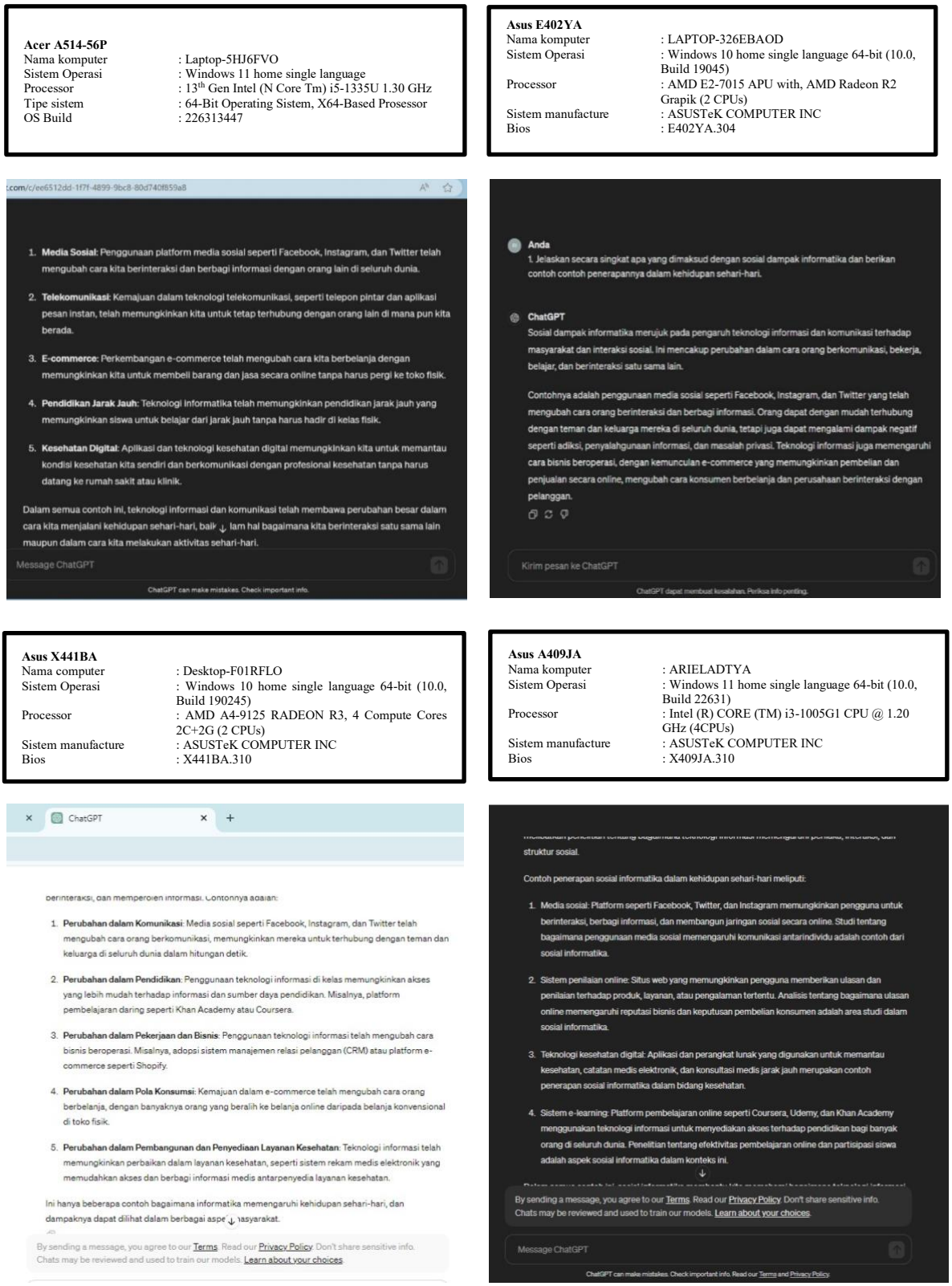

Figure 1. ChatGPT's responses related to informatics material on different computers

5. DISCUSSION

This study reveals that while ChatGPT is designed to produce uniform responses to identical prompts, variations in its outputs were observed across different brands and specifications of devices. These findings highlight that hardware factors can influence the output of large language models like ChatGPT—an aspect that has been largely overlooked in previous research.

The novelty of this study lies in its combined technical and pedagogical approach to evaluating the consistency of ChatGPT's responses within the context of secondary education. By involving students with a diverse range of laptops, the research provides empirical insights into how device variability can shape students' learning experiences when interacting with AI. This is particularly significant, as most prior studies have primarily focused on ChatGPT's technical capabilities or its general impact on education, without considering the hardware variables affecting end-users. For instance, Handoyo et al. (2023) limited their research scope to the development of students' capacities after using ChatGPT. Similarly, Meihan et al. (2023) focused on ChatGPT's role in the learning process, with findings indicating that respondents gained significant benefits from its use in education. These studies affirm that ChatGPT is widely recognized as a valuable learning aid. However, few have investigated the quality and variation of the responses ChatGPT provides to students. This study thus contributes a significant novelty—particularly in the field of education.

In the context of secondary education, these findings have important implications. Variability in responses due to device differences can affect students' understanding of learning materials, potentially leading to inequities. Educators should be mindful of these possible variations and consider establishing device standards or providing specific guidelines when integrating AI tools into instruction to ensure consistency and fairness. Additionally, students must also adopt a critical mindset when interpreting ChatGPT-generated responses. They should not accept all information at face value without verification, as ChatGPT's outputs are not always accurate. It is essential for students to prioritize creative and critical thinking when using ChatGPT as a learning aid (Maulana et al., 2023). Understanding values, norms, and ethics is also crucial, especially when students use ChatGPT for writing tasks (Faiz & Kurniawaty, 2023).

Previous studies exploring the use of ChatGPT in education have highlighted its benefits in helping students understand subject matter and enhance engagement. Some research indicates that ChatGPT can serve as an adaptive learning resource tailored to individual student needs. However, these studies have not specifically addressed how hardware differences may influence AI responses. Therefore, the findings of this study are a valuable consideration for educators and learners, stressing the importance of reviewing and validating ChatGPT's responses to ensure they align with instructional modules, lesson materials, or textbooks. This practice is essential to avoid potential biases in educational content.

6. CONCLUSION

The findings of this study indicate that althoughwhile ChatGPT is designed to provide uniform responses to identical prompts, significant variations in output were observed when the model was accessed using devices with differing specifications. These variations ranged from "very different" to "identical" levels of response similarity, suggesting that hardware-related factors—such as operating systems, processors, and BIOS configurations—can influence the AI's output. Based on the analysis, the Acer A514-56P and Asus X441BA exhibited a high degree of response similarity (90%), thus categorized as "Identical." Despite being manufactured by different brands, both devices share comparable specifications, including the Windows 11 operating system and recent-generation Intel processors, implying that stable and modern system configurations likely contribute to consistent ChatGPT outputs.

In contrast, devices like the Asus A409JA and Asus X441M produced responses with 70% similarity, falling under the "nearly identical" category. These two devices differ significantly in BIOS versions and processor architectures (e.g., Intel i3 vs. Celeron), which may account for structural differences in their responses, even though the semantic content remains similar. Conversely, devices such as the Axioo MyBook 14 and HP 14s-dq0508TU showed more substantial variation, with similarity rates ranging from 50% ("different") to 20% ("very different"). This suggests that devices with older processors or outdated BIOS configurations are more likely to generate inconsistent ChatGPT responses, although the responses still generally relate to the same topic.

These findings have important implications for the field of education, particularly for secondary-level learners who rely on AI as a learning tool. Inconsistencies in AI-generated responses may lead to disparities

in students' comprehension of instructional content, highlighting the need for both educators and learners to be aware of potential variations in AI outputs.

This study recommends that educators consider technical factors when integrating AI tools into the classroom. This includes providing standardized guidelines for ChatGPT usage to ensure a more uniform learning experience across different devices. Additionally, future research should examine how variables such as internet connectivity and application version may affect response variation. AI developers are also encouraged to improve the consistency of their models across different hardware environments to promote equitable and effective educational outcomes. By addressing these issues, the use of AI in education can become more optimal and inclusive, ensuring all students benefit regardless of the devices they use.

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