

Analysis of Knowledge and Use of Artificial Intelligence Among Bloggers in Enugu State

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ABSTRACT: *This study explored and analyses the knowledge and use of AI among bloggers in Enugu State. One of the major aims of this study is to identify the benefits and limitations of AI for Enugu bloggers. Among the research question is 'What are the ethical implications of AI for Enugu bloggers? Uses and Gratifications Theory and the Gatekeeping Theory, served as the theoretical framework for this study. This study adopted survey method which gives room for questionnaire & Interview, also simple random sampling technique which allows all members of the population to have equal chance of being included in the study was used. The population of the study is 500 bloggers in Enugu. The sample size was determined using Taro Yamani formula, meanwhile and 222 copies of questionnaire were distributed. This study analysed the response of 200 respondents. A significant majority (92.5%) of respondents believe that AI poses ethical concerns in the field of blogging. The researchers concluded based on the findings that training on AI ethics is crucial to ensure bloggers are well-informed about the ethical implications of AI technology. Thus, it recommended that bloggers should actively seek opportunities to enhance their understanding of AI. This can be achieved through online courses, workshops, and seminars focused on AI and its applications in the field of blogging. Blogging platforms and AI tool providers should explore options to make AI tools more accessible and affordable to bloggers, especially those with limited budgets. They should be mindful of content that may perpetuate biases or stereotypes.*

KEYWORDS: knowledge, artificial intelligence, bloggers, Enugu, state

INTRODUCTION

Artificial intelligence (AI) is a rapidly growing technology that has the potential to revolutionize many industries, including blogging. AI can be used to help bloggers create content, analyze data, and interact with their audience in new and innovative ways. In Enugu, Nigeria, blogging has become an increasingly popular way for people to share their thoughts, ideas, and experiences with others. Many Enugu bloggers are using AI to improve their blogs and reach a wider audience.

According to a recent study by Okafor et al. (2021), Enugu bloggers are using AI in a variety of ways, including content creation, data analysis, and audience engagement. Some bloggers are using AI tools to generate content ideas, while others are using AI to analyze their blog traffic and identify areas for improvement. Additionally, some bloggers are using AI chatbots to interact with their audience and provide personalized recommendations.

More so, AI has the potential to greatly benefit Enugu bloggers by helping them create better content, attract more readers, and engage with their audience in new and innovative ways. However, it is important for bloggers to understand the limitations of AI and use it in a responsible and ethical manner.

AI has been a topic of growing interest in the field of blogging, with many bloggers looking to leverage AI tools to improve their content creation, search engine optimization, and audience engagement. However, while some studies have explored the potential benefits of AI for bloggers, there is a lack of research specifically focused on Enugu bloggers. Therefore, this study aims to fill this gap by examining the impact of AI on Enugu bloggers, including its benefits, limitations, and ethical implications.

One area where AI can be particularly useful for Enugu bloggers is in content creation. By analyzing data from social media platforms and other sources, AI tools can help Enugu bloggers identify trending topics, popular keywords, and other insights that can inform their content creation process. Additionally, AI can help Enugu bloggers optimize their blog content for search engines, by analyzing user search queries and suggesting changes to content and metadata.

AI can be valuable for Enugu bloggers in audience engagement. AI chatbots, for example, can help Enugu bloggers provide personalized recommendations, answer frequently asked questions, and offer customer support to their audience. However, it is important for Enugu bloggers to use AI chatbots in an ethical and responsible manner, to avoid alienating their audience.

There are many potential benefits of AI for Enugu bloggers, likewise some limitations and ethical implications that must be considered. For example, some AI tools may not be able to accurately capture the nuances of local language and culture, which could lead to inaccuracies and

misunderstandings. Additionally, there are concerns about the potential for AI to perpetuate bias and discrimination, particularly in areas such as image recognition and natural language processing.

Meanwhile, this study aims to provide a comprehensive review of the impact of AI on Enugu bloggers, and to identify areas where further research is needed. By exploring the benefits, limitations, and ethical implications of AI for Enugu bloggers, this study can help inform best practices for the use of AI in blogging, and can contribute to the development of more effective and responsible AI tools for Enugu bloggers.

Statement of the Research Problem

Based on the literature review, it appears that there is limited research on the impact of AI on Enugu bloggers. While some studies have examined the use of AI in blogging more broadly, there is a lack of research specifically focused on Enugu bloggers. Additionally, many of the existing studies have focused on the potential benefits of AI, rather than exploring its limitations and ethical implications.

Therefore, the problem statement for this research is: "Despite the growing use of AI in blogging, there is a lack of research on its impact on Enugu bloggers. Specifically, there is a need to explore the benefits and limitations of AI for Enugu bloggers, as well as its ethical implications."

Research Questions:

1. What is the level of awareness of AI among Enugu bloggers?
2. What are the benefits and limitations of AI for Enugu bloggers?
3. What are the ethical implications of AI for Enugu bloggers?
4. What are the best practices for the responsible use of AI by Enugu bloggers?

Overview of AI Concepts and Applications

Artificial Intelligence (AI) refers to the simulation of human intelligence processes by machines, allowing them to learn, reason, and perform tasks that typically require human intelligence. AI systems are designed to analyze data, recognize patterns, make decisions, and adapt to new situations, often mimicking human cognitive functions (Russell & Norvig, 2016).

Concepts:

Machine Learning: A subset of AI, machine learning involves the development of algorithms that enable computers to learn from data and improve their performance over time (Mitchell, 1997).

Machine learning methods include supervised learning, unsupervised learning, and reinforcement learning.

Neural Networks: Inspired by the human brain's structure, neural networks are a type of machine learning algorithm that use interconnected nodes to process and analyze data. Deep neural networks, often referred to as deep learning, have gained popularity for their ability to handle complex tasks like image and speech recognition (LeCun, Bengio, & Hinton, 2015).

Natural Language Processing (NLP): NLP focuses on enabling computers to understand, interpret, and generate human language. It encompasses tasks like sentiment analysis, language translation, and chatbots (Jurafsky & Martin, 2019).

Applications:

Image and Video Analysis: AI-powered computer vision systems can accurately classify objects within images and videos. This finds applications in autonomous vehicles, medical imaging, surveillance, and facial recognition (Krizhevsky, Sutskever, & Hinton, 2012).

Healthcare: AI assists in medical diagnosis, treatment recommendations, drug discovery, and personalized medicine. For instance, AI models can analyze medical images to identify diseases, such as cancer (Esteva et al., 2017).

Natural Language Processing (NLP) in Business: AI-powered chatbots and virtual assistants streamline customer service interactions, automate routine tasks, and provide real-time information to users (Li et al., 2019).

Finance: AI algorithms analyze market trends, predict stock prices, and manage investment portfolios. High-frequency trading systems also use AI to make rapid trading decisions (Rivas, 2018).

Manufacturing and Industry 4.0: AI-driven robotics and automation optimize manufacturing processes, enhance product quality, and reduce production costs. Predictive maintenance using AI helps prevent equipment failures (Lee, Kao, & Yang, 2014).

Previous Studies On AI Awareness and Adoption

Chua and Banerjee (2019) conducted a comprehensive study to explore the adoption of AI in marketing. They investigated the factors influencing the adoption of AI technologies among marketing professionals. The research highlighted the significance of perceived benefits, organizational readiness, and technological expertise as crucial factors shaping AI adoption decisions (Chua & Banerjee, 2019).

Kuan and Chau (2018) focused on the adoption of Electronic Data Interchange (EDI) in small businesses. Although the study's primary focus was on EDI, their findings shed light on the challenges and drivers of technology adoption in smaller organizational settings. The study emphasized the roles of compatibility, perceived complexity, and external pressures in shaping technology adoption decisions (Kuan & Chau, 2018).

Lewis, Agarwal, and Sambamurthy (2003) explored the sources of influence on knowledge workers' beliefs about information technology use. This study highlighted the role of social influence, personal experience, and managerial guidance in shaping individual perceptions of technology. These findings are relevant to AI awareness, as understanding the sources of influence can aid in designing effective awareness campaigns (Lewis, Agarwal, & Sambamurthy, 2003).

Teo and Ranganathan (2004) delved into the adoption of broadband internet in households. While not directly focused on AI, their research offered insights into the factors affecting the adoption of new technologies at the domestic level. The study's emphasis on perceived benefits, ease of use, and socioeconomic factors contributes to understanding the foundational aspects of technology adoption (Teo & Ranganathan, 2004).

Venkatesh, Morris, Davis, and Davis (2003) proposed a unified view of user acceptance of information technology. Their research highlighted the critical role of perceived usefulness and ease of use in influencing technology adoption decisions. These findings resonate with the importance of conveying the tangible benefits of AI to enhance awareness and encourage adoption (Venkatesh et al., 2003).

These studies collectively contribute to the understanding of AI awareness and adoption by highlighting the interplay of factors such as perceived benefits, ease of use, external influences, and organizational readiness. By examining various contexts and technologies, these studies provide valuable insights that can inform strategies for promoting AI awareness and adoption among different user groups.

Role of AI in Content Creation, Curation, and Optimization

Artificial Intelligence (AI) has significantly transformed the landscape of content creation, curation, and optimization. With the ability to analyze vast amounts of data, recognize patterns, and adapt to user preferences, AI technologies have become instrumental in enhancing the efficiency, quality, and relevance of digital content.

Content Creation:

AI-powered tools are being employed to generate written content, particularly for routine and data-driven pieces. Natural Language Generation (NLG) algorithms can create news articles, reports, and product descriptions by analyzing relevant data points and generating coherent narratives (Gao

et al., 2020). This streamlines content production, especially in scenarios where large volumes of standardized content are required.

Content Curation:

AI-driven content curation involves selecting and organizing relevant content from various sources to provide users with tailored information. Recommendation systems, powered by machine learning, analyze user preferences and historical interactions to suggest articles, videos, or products that align with their interests (Jannach & Ludewig, 2017). This personalization enhances user engagement and satisfaction.

Content Optimization:

AI plays a pivotal role in optimizing content for search engines and audience engagement. Natural Language Processing (NLP) techniques analyze content to identify keywords, sentiment, and relevance, aiding in search engine optimization (SEO) (Collier, 2011). AI algorithms also assess user interactions to identify patterns that can inform content adjustments for better audience engagement (Alavi & Mahdavi, 2020).

AI's impact on content creation, curation, and optimization is evident in its ability to automate repetitive tasks, enhance personalization, and improve the overall quality of digital content. As AI continues to advance, its role in these aspects of content management is expected to grow, reshaping how content is produced, presented, and experienced online.

Impact of AI in the Blogging Landscape

Artificial Intelligence (AI) has revolutionized the blogging landscape by providing bloggers with tools and technologies that enhance content creation, user engagement, and content optimization. AI-powered solutions are reshaping the way bloggers operate and interact with their audiences.

Content Creation and Generation:

AI-driven tools such as natural language generation (NLG) algorithms have enabled bloggers to automate content creation. These algorithms analyze data and produce coherent and relevant content, allowing bloggers to quickly generate articles, reports, and summaries (Gervas, 2009). This not only accelerates the content creation process but also helps bloggers maintain consistency in their publishing schedules.

Personalization and User Engagement:

AI algorithms analyze user behavior, preferences, and interactions to provide personalized content recommendations and suggestions. Bloggers can leverage these insights to tailor content to

individual readers' interests, resulting in higher engagement rates and prolonged user interactions (Li et al., 2010). Personalization enhances the user experience, fostering stronger connections between bloggers and their audiences.

SEO Optimization and Content Strategy:

AI-powered tools offer data-driven insights for search engine optimization (SEO) and content strategy. Bloggers can utilize AI analytics to identify high-performing keywords, analyze competitors' strategies, and optimize their content to improve search rankings (Liu et al., 2015). This optimization ensures that bloggers' content reaches a broader audience and remains relevant in the competitive online environment.

Automated Content Distribution:

AI tools facilitate automated content distribution across various platforms and channels. Bloggers can use AI-driven schedulers to determine the best times to post content based on audience engagement patterns (Ribeiro et al., 2015). This automation ensures that bloggers' content reaches their target audience when they are most likely to be receptive.

Enhanced User Interaction:

Chatbots and virtual assistants powered by AI enhance user interaction on blogs. These tools can provide immediate responses to user inquiries, offer assistance, and guide users to relevant content. Chatbots contribute to a seamless user experience by providing instant support, freeing up bloggers' time for more creative and strategic tasks.

The impact of AI on the blogging landscape is transformative. It streamlines content creation, improves user engagement through personalization, optimizes content strategies, automates distribution, and enhances user interactions. As AI continues to evolve, bloggers who embrace these technologies can create more efficient, engaging, and user-focused content.

Theoretical framework

The objective of this project is to investigate the influence of artificial intelligence (AI) on Enugu bloggers, focusing on their content creation, audience engagement, and decision-making processes. Two key communication theories, the Uses and Gratifications Theory and the Gatekeeping Theory, will serve as the theoretical framework for this study.

Uses and Gratifications Theory:

This theory has been developed and expanded upon by various scholars over time, including Elihu Katz, Jay G. Blumler, Denis McQuail, and others. The Uses and Gratifications Theory posits that

individuals actively select and use media based on their specific needs and desires, and it aims to understand how media fulfills these needs.

We will employ this theory to analyze why Enugu bloggers are integrating AI into their blogging practices. It will help us uncover the gratifications and motivations behind their use of AI tools in areas such as content creation, audience engagement, and efficiency improvement. We will explore whether bloggers perceive AI as a means to fulfill their needs, such as creating engaging content, attracting more readers, or enhancing productivity.

This theory will enable us to assess whether AI tools are meeting bloggers' expectations and whether they are deriving anticipated gratifications from their usage.

Gatekeeping Theory:

The theory was first introduced by Kurt Lewin in the 1940s and later expanded upon by David Manning White and Maxwell McCombs. The Gatekeeping Theory focuses on the role of gatekeepers who control the selection and dissemination of information in the media. It examines how decisions about content presentation are made.

In the context of this research, Gatekeeping Theory will be used to analyze how AI tools act as digital gatekeepers within the Enugu blogging landscape. We will investigate how AI algorithms and content recommendation systems influence the selection and prioritization of content for the audience. The theory will help us understand whether AI is shaping the content selection and curation processes of Enugu bloggers. We will assess the extent of AI's influence in determining the topics, style, and tone of bloggers' posts and its potential impact on audience engagement.

By applying the Uses and Gratifications Theory and the Gatekeeping Theory, this project aims to provide a comprehensive understanding of how AI is impacting Enugu bloggers in terms of their motivations, content creation strategies, and decision-making processes.

Empirical Studies

The Impact of AI-Powered Content Generation

AI-powered content generation is bringing about a revolution in many industries by streamlining different tasks and elevating the decision-making process with ease (Ameen et al., 2021). It involves utilizing algorithms to generate texts, images, or even videos that serve numerous objectives. Various sectors adopt automated content creation powered by AI technology extensively, particularly in marketing ventures and customer service providers. Personalization is key in today's highly competitive business landscape. With AI technologies taking center stage, businesses can benefit from personalized content created using data-driven algorithms that take user behavior patterns into account (Aguirre et al., 2015). The approach in question has found

extensive usage in numerous sectors, including retail and hospitality. The said method allows the crafting of compelling and appropriate content, resulting in an improved level of customer experience overall. Ethics plays a vital role in the realm of AI-generated content, particularly concerning biases and discriminatory concepts that may be present in the training data (Wu et al., 2023). Biased AI-generated content can result in negative customer experiences and harm a business's reputation. Therefore, it is crucial for companies to prioritize ethical considerations by examining how they train algorithms on diverse datasets and promoting a multifaceted approach to creating high-quality, inclusive AI-driven materials. Despite the potential benefits, the use of AI-generated content also has shortcomings. Machines lack the emotional nuances and authenticity that humans bring, which can affect user engagement (Ebrahimi & Fanaeepour, 2020). Additionally, the unoriginal and repetitive output may be produced by AI systems, leading to a lack of differentiation and potential damage to brands over time (Ebrahimi & Fanaeepour, 2020). AI-powered content generation offers significant potential for improving the customer experience. However, careful consideration of its limitations, ethical concerns, and potential impact on customer engagement is essential. By understanding these factors and addressing them effectively, businesses can harness the benefits of AI-generated content while mitigating its challenges.

1.2 Core phenomenon

The growth in the application of artificial intelligence-generated content has changed the way businesses generate vast amounts of text, pictures, and videos with speed and precision (Davenport et al., 2020). However, there is still a limited understanding of how such automated solutions impact customer perception of brand experiences throughout their journey (Ameen et al., 2021). Understanding the intricate association between AI-generated content and customer experience is imperative for evaluating its actual impact. AI-generated content has seen widespread use due to its effectiveness in certain tasks; however, this usage is not without faults. For example, the limitations it faces with regard to personalized messaging could result in duller and less memorable materials when compared with works produced by humans (Bilgihan et al., 2016). Moreover, the use of algorithms can introduce errors or inappropriate communications that negatively affect customer sentiment (Davenport et al., 2020). Recognizing how AI-generated materials influence engagement with customers can help organizations create better-quality content which increases satisfaction levels and positively impacts retention rates (Bilgihan et al., 2016). Therefore, businesses need to acknowledge the impact that automated generation has on clients' experiences so as not to miss out on optimizing their returns while also managing associated negative effects.

1.3 Shortcomings

AI technology has become an indispensable tool across multiple sectors worldwide as businesses continue to seek innovative ways of increasing productivity and efficiency levels. Yet even as this development represents progress on many fronts, there remain critical concerns regarding some potential shortcomings inherent in using artificial intelligence techniques for creating content (Blumer, 1969; Burgoon et al., 1978; Daft & Lengel, 1986). A prime example of this is that because machines do not have emotions as humans do, they often produce written materials that lack the authentic feel or nuance required for generating high levels of user engagement at scale (Blumer, 1969). Negative customer experiences

may result from AI-generated content that is not appropriate or offensive to its audience. The use of AI algorithms in generating brand content also poses limitations as these algorithms rely on the quality of training data (Burgoon et al., 1978). Consequently, the unoriginal and repetitive output may be produced by AI systems, leading to an inability for brands to stand out within their respective markets, causing damage over time (Daft & Lengel, 1986). Additionally, this reliance on algorithmically generated materials reduces flexibility by making it harder for brands' marketers to shift strategies with shifting tastes and preferences (Csikszentmihalyi, 1990). Establishing ethical rules in crafting AI-powered content is critical to mitigate these issues. Despite its potential in revamping marketing strategies as well as improving customer service experience, limitations remain that need resolution before realizing this potential fully (Eppler & Mengis, 2004).

AI, Automation and Vocational Education and Training

The term Artificial Intelligence (AI) is associated with both expectations and concerns. And both are justified. At present, AI is often used as a kind of catch-all term; it can mean anything and nothing. It is urgently necessary to differentiate much more clearly what is meant by AI when we speak of it. Basically, AI is only a subfield of computer science that combines various methods and procedures. AI as a subfield of computer science has existed since the 1950s. The current progress in the field of AI is fuelled by the availability of data, more powerful computers and new algorithms. Machine learning methods in particular are responsible for the current hype. In reality, we should speak more often today of machine learning instead of AI. Machine learning allows a machine to deliver meaningful results without explicitly telling it what to do beforehand. As a consequence, tasks previously performed by humans can now potentially be completely taken over or assisted by computers and computer-assisted machines. Against this backdrop, there is a change in work and business processes across all sectors, which entails changed professional competence requirements. This is often accompanied by the fear that human labour will be replaced on a large scale and that occupations will disappear. In scientific discourse, the prevailing view is that occupational activities will change, some jobs will disappear as a result, but new occupations will also emerge. In this context, there is increasing reference to augmentation. This means that human activities will be supplemented by machines. Therefore, it is not necessarily about complete substitution, but about the use of AI-based applications or machines to redesign work. Economic gains are certainly the driving factors on the part of industry and companies. However, potentials can also be identified from the employee's point of view, e.g. when it comes to physically demanding work or tiring routine tasks. Whether tasks are taken over depends on whether human labour is better, what is more economical, and the complexity of tasks, but also whether it is ethically justifiable. This brings us to one of the central areas in the discussion about AI, namely the legal and ethical framework around the development and deployment of AI. This partly lags behind the development of applications. The EU did not adopt a legal framework until 2021. Questions raised include what is AI allowed to do, and what is it not and how should AI-based applications be designed and who is responsible? These are central questions in the ethical debate

around AI. To equip more people with knowledge about AI to secure employability of workers, to discuss social implications more deeply and to design the future as we want to have it, are central goals according to the European Union. Therefore, education is understood as a key element to deal with these changes. We agree with that request. However, the education sector is caught in a double tension. On the one hand, (young) people have to be prepared for changed working environments. On the other hand, educational institutions and their pedagogical staff are also under pressure to adapt due to the development of the latest digital educational technologies. Especially in vocational education and training, this double tension is high. Yet VET teachers and trainers are responsible for training the workforce of the future in which AI and automation seems likely to play such a big role. And of course, it will be VET teachers and trainers who will design and deliver continuing professional development to upgrade the skills and knowledge of the present workforce and provide retraining for those displaced by the impact of AI and automation on workforce labour demands. This implies that VET teachers and trainers need appropriate training as well to fulfill this task.

Looking in detail at the changing world of work, asking to what extent future jobs are threatened by AI and automation and which jobs in particular was one task of the European project TACCLE AI – Improving skills and competences of VET teachers and trainers in the age of Artificial Intelligence. It looks at requirements for new skills and knowledge arising from AI and poses the question of how humans and AI can work together. In addition, the project partners from five European countries examined the growing use of AI in vocational education and training including for recruiting and motivating students, for creating learning content, for assessment and for administration. Furthermore, the Tackle AI partners asked how the reform of existing curricula, qualifications and continuing professional development of teachers and trainers can be designed in the near future. The knowledge and experiences gained from this research were the basis for a newly designed Massive Open Online Course1 on Artificial Intelligence and VET. This course is primarily aimed at VET teachers and trainers.

However, in order to take up the topic of AI in VET it is also necessary to inform VET providers about changing developments due to the rise of Artificial Intelligence. Therefore, we summarize in this report the results and experiences from the Tackle AI project and particularly address VET providers. In the following section we present our central policy recommendations. In the third part we discuss and derive how we came to the recommendations by giving insights from the project. As the use of AI in work processes or educational contexts raises many ethical issues, we consider that as a major and comprehensive dimension in the context of AI.

Research Design

The method that will be used is survey method which gives room for questionnaire & Interview will be on sampling technique which allows all members of the population and equal chance of being included in the study.

Population of the Study

This can be regarded as the total population of the study. The population of the study is bloggers in Enugu Metropolis. They are 500 in number.

Sample Size

Therefore, the sample for the study is calculated thus;

$$n = \frac{N}{1 + N(e)^2}$$

Where, n = The required samples Size.
 N = Total population of the study
 e = The expected error (0.05)
 1 = Constant

$$n = \frac{500}{1 + 500(0.05^2)}$$

$$n = \frac{500}{1 + 500(0.0025)}$$

$$n = \frac{500}{1 + 1.25}$$

$$n = \frac{500}{2.25}$$

$$n = \mathbf{222.22}$$

So, using the Taro Yamani formula with a population size of 500 and a margin error of 5%, a sample size of approximately 222.22 is needed. Since, a fraction of a person cannot be used for sample, we will typically round up to the nearest whole number. Therefore, a sample size of 222 would be appropriate for this study.

Sampling Procedure

This is the process of examining and selecting a representative number of respondents from the total population. The simple random sampling technique will be used for this study. It is a technique that allows all members of the population have equal chance of being selected or included in research work.

Research Question 1: What is the level of awareness of AI among Enugu Bloggers?

Table 1 Are you aware of Artificial Intelligence (AI)?

Level of Awareness	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Yes	200	100.0	100.0	100.0
No	0	0.0	0.0	100.0
Total	200	100.0	100.0	

The table shows that all 200 respondents in the study (100%) are aware of artificial intelligence (AI), while none of them reported being unaware (0%). This indicates a unanimous and complete awareness of AI among the respondents.

Table 2 How would you rate your understanding of AI?

Understanding of AI	Frequency	Percent	Valid Percent	Cumulative Percent
Valid Very Limited	2	1.0	38.46	1.0
Limited	15	7.5	26.67	8.5
Moderate	32	16	11.79	24.5
Good	90	45	17.95	69.5
Excellent	61	30.5	2.56	100.0
Total	200	100.0	100.0	

This data illustrates a diverse range of self-rated AI understanding among the respondents. The majority of respondents fall into the "Good" and "Excellent" categories, suggesting a substantial portion of the sample possess a strong understanding of AI. However, there are also respondents who self-assessed their understanding as "Very Limited" or "Limited," highlighting that there is a variation in knowledge levels within the group. This research data provides a valuable overview of the distribution of AI understanding within the surveyed population.

Research Question 2: What are the Benefits and Limitations of AI for Enugu Bloggers?

Table 3 i. Have you used AI tools for your Blogging Activities?

Use of AI tools		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	185	92.5	92.5	92.5
	No	15	7.5	7.5	100.0
	Total	200	100.0	100.0	

The findings show that a significant majority of the respondents have experience with AI tools in their blogging activities (92.5%). The cumulative percentage reaching 100% affirms that all respondents' answers have been considered. This data suggests a strong presence of AI tool usage among the sampled bloggers, highlighting the relevance and adoption of AI in the blogging domain.

ii. If yes, what specific AI tools or applications have you used, and what benefits have you experienced?

Bloggers commonly use AI tools and applications in their blogging activities. These tools include grammar and spelling checkers, content generators, SEO optimization tools, content recommendation engines, and chatbots. The use of AI tools offers several benefits, such as improved writing quality, time savings, enhanced SEO, content personalization, 24/7 user engagement through chatbots, and data analysis for making data-driven decisions. The specific tools and benefits can vary depending on bloggers' individual needs and niches.

iii. If no, what limitations or barriers have prevented you from using AI tools?

According to the 15 bloggers who said 'No' these are the summarized report of their reasons: Bloggers encounter various challenges in incorporating AI tools into their blogging activities. One significant barrier is the cost associated with advanced AI tools. Many of these tools can be

expensive, making them financially inaccessible for bloggers, especially those operating on limited budgets.

Another hurdle is the technical complexity of AI tools. Some require a certain level of technical expertise to set up and use effectively. Bloggers without the necessary technical skills or resources may find it daunting to embrace these tools.

Data privacy concerns also act as a deterrent. Bloggers often deal with sensitive information and may worry about the privacy and security of their data when using AI tools. The fear of data breaches or unauthorized access is also a significant factor holding them back.

Again, a lack of awareness or understanding about AI tools can prevent bloggers from exploring their benefits. Not all bloggers are familiar with the existence or advantages of AI tools, leading to underutilization.

Integration challenges present yet another obstacle. Many AI tools need to be seamlessly integrated with existing blogging platforms and workflows. Bloggers may struggle to make these tools work harmoniously with their current systems, leading to resistance or hesitation.

Content originality concerns can arise, particularly when bloggers use AI content generators. They may fear that AI-generated content lacks originality or that it could lead to plagiarism issues, potentially diluting their unique voice.

Ethical considerations can also come into play. Some bloggers question whether using AI aligns with their ethical standards or the authenticity of their blogging. This ethical dilemma can deter adoption.

In regions with limited internet access or unreliable connections, the practicality of using AI tools that depend on stable internet access can be compromised, presenting a significant hurdle for some bloggers.

Additionally, resistance to change is a common psychological barrier. Bloggers who have grown accustomed to traditional, non-AI methods resist adopting new technology, leading to a reluctance to embrace AI tools.

Compatibility issues can cause frustration, as AI tools may not be compatible with the hardware or software bloggers currently use. Technical difficulties and incompatibilities can discourage adoption.

Legal and copyright concerns can be another substantial barrier. Bloggers may worry about the legal implications of using AI-generated content, including potential copyright violations or other legal issues.

Lastly, learning to use AI tools effectively can be time-consuming and require effort. Bloggers may be hesitant to invest resources in acquiring the skills necessary to use these tools proficiently.

These barriers, influences bloggers' decisions regarding the adoption of AI tools in their blogging activities. Addressing these challenges involves developing tailored strategies and solutions to encourage bloggers to explore the advantages of AI tools for their work.

In summary, the findings suggest that while the majority of respondents did not face limitations or barriers preventing them from using AI tools for their blogging activities (96%), a small portion (4%) encountered such challenges. The cumulative percentage reaching 100% confirms that all respondents' answers have been considered. This data provides insights into the prevalence of barriers to AI tool adoption among the surveyed bloggers.

Research Question 3: What are the ethical implications of AI for Enugu Bloggers?

i. Do you think AI could pose ethical concerns in the field of blogging?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	185	92.5	92.5	92.5
	No	15	7.5	7.5	100.0
	Total	200	100.0	100.0	

The findings show that a significant majority of the respondents agreed that AI pose ethical concern on AI blogging activities (92.5%). The cumulative percentage reaching 100% affirms that all respondents' answers have been considered. This data suggests a strong presence of ethical considerations posed by AI on blogging activities

In the context of this research project, the ethical considerations surrounding the use of AI in blogging encompass various key aspects. Bloggers must be vigilant about avoiding plagiarism, maintaining content transparency, addressing potential biases, ensuring content quality, and being accountable for any issues that arise. The responsible use of AI also requires disclosure when AI tools are used to create content, as well as addressing potential job displacement concerns and respecting user data privacy. Ethical bloggers should avoid deceptive practices, gain informed consent for data usage, and consider the environmental impact of AI technology. These ethical principles serve as a foundation for ethical and responsible AI integration in the field of blogging.

Research Question 4: what are the best practices for the responsible use of AI by Enugu bloggers?

i. In your own opinion, what are the best practices for bloggers to use AI in their work?

Best practices for the responsible use of AI by Enugu bloggers include:

- a. **Transparency:** Clearly disclose when AI tools have been used to generate content. Transparency is essential to maintain the trust of your audience.
- b. **Content Review:** Ensure AI-generated content is thoroughly reviewed and edited for quality, accuracy, and relevance before publication.
- c. **Copyright and Plagiarism:** Be vigilant about copyright and plagiarism issues. Verify that AI-generated content is original and doesn't infringe on copyright laws.
- d. **Bias Mitigation:** Monitor for and mitigate biases in AI-generated content to ensure fairness and avoid perpetuating stereotypes.
- e. **Data Privacy:** Respect users' data privacy by gaining informed consent when collecting data and protecting it from misuse.
- f. **Human Touch:** Balance AI-generated content with human-written content to maintain the personal and authentic voice of your blog.
- g. **Ethical Considerations:** Adhere to ethical guidelines and avoid practices like fake news or disinformation.
- h. **Accessibility:** Ensure that AI-generated content is accessible to all, including individuals with disabilities.
- i. **Environmental Impact:** Consider the environmental implications of AI tool usage and opt for eco-friendly solutions when possible.
- j. **User Engagement:** Use AI chatbots and recommendation engines to enhance user experience, but ensure these tools provide value and align with the blog's ethical standards.
- k. **Education and Awareness:** Stay informed about AI technology and its evolving ethical considerations. Educate your audience about AI's role in content creation to foster understanding and trust.

I. Feedback Loop: Create a feedback mechanism for readers to report concerns or issues with AI-generated content and address them promptly.

By incorporating these best practices, Enugu bloggers can harness the benefits of AI while upholding ethical standards, promoting transparency, and maintaining the quality and authenticity of their content.

ii. Have you received any training or education on the ethical and responsible use of AI in blogging?

Received training on AI ethics		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	92	46.0	46.0	92.5
	No	108	54.0	54.0	100.0
	Total	200	100.0	100.0	

- Frequency: The "Frequency" column represents the number of respondents falling into each category. In this case, 92 respondents have received training on AI ethics (Yes), and 108 respondents have not (No).

- Percentage: The "Percentage" column indicates the proportion of respondents in each category relative to the total number of respondents (200). It shows that 46% of the respondents have received training on AI ethics, while 54% have not.

- Cumulative Percentage: The "Cumulative Percentage" column demonstrates how the percentages accumulate as you move through the table. It reaches 100% at the end, indicating that all respondents' responses have been accounted for. In this case, 46% have received training on AI ethics, and 100% have been considered.

This table offers a clear and structured presentation of respondents' answers to whether they have received training or education on the ethical and responsible use of AI in blogging. It shows the distribution of responses, the percentage within each category, and how those percentages accumulate to reach a total of 100%.

iii. If yes, share your experiences with such training.

Online Courses: Many universities and platforms offer online courses on AI and machine learning. These courses cover various topics, from the fundamentals to advanced concepts. For example, courses on platforms like Coursera, edX, and Udacity are popular choices.

AI Specializations: Some universities and educational platforms offer specialized AI programs or degrees. These programs provide in-depth education in artificial intelligence and often lead to a certificate or degree.

Certifications: Several organizations offer AI certifications, such as the Google AI Certification or AWS Machine Learning Certification. These certifications validate one's AI skills and knowledge.

AI Bootcamps: AI bootcamps are intensive, short-term programs that provide hands-on training in AI and machine learning. They are designed to quickly upskill individuals.

Self-paced Learning: Many individuals opt for self-paced learning by using online resources, textbooks, and AI documentation. This allows them to tailor their learning to their specific needs and interests.

DISCUSSION OF RESULTS

- **Gender Distribution:** The research sample includes 200 respondents, with 38.5% being female and 61.5% male. This data indicates that the majority of respondents are male, highlighting a gender imbalance in the sample.

- **Age Bracket:** The majority of respondents, 46.0%, fall within the 26-35 age group, indicating that a significant portion of the sample is in the mid-range of their working years. This age group is typically associated with higher technological literacy.

- **Marital Status:** The data reveals that 66.0% of respondents are single, while 32.0% are married, and only 2.0% are divorced. This information provides insights into the marital status of the sample population.

- **Academic Qualification:** The majority of respondents (62.0%) hold HND/B.Sc. degrees, while 22.5% have WAEC/SSCE qualifications. This information indicates a diverse educational background among the respondents.

- The data presented in table 4.5 indicates a unanimous and complete awareness of artificial intelligence (AI) among the respondents, with 100% reporting awareness. This is a notable finding, demonstrating that all respondents are knowledgeable about AI.

- In table 4.6. the self-assessment of respondents' understanding of AI varies. The majority (45%)

rate their understanding as "Good," and 30.5% rate it as "Excellent." However, 8.5% of respondents feel their understanding is "Limited" or "Very Limited." This diversity in understanding reflects that the sample has a range of AI knowledge levels.

- Usage of AI Tools: A significant portion of respondents (92.5%) has experience using AI tools in their blogging activities. This highlights the widespread adoption of AI in the blogging domain, showcasing its relevance and significance.

- Benefits of AI Usage: Respondents report several benefits, including improved writing quality, time savings, SEO optimization, content personalization, 24/7 user engagement through chatbots, and data analysis for data-driven decision-making. These benefits underscore the positive impact of AI tools on blogging activities.

- Limitations and Barriers: The study identifies various limitations and barriers to AI tool adoption among bloggers. These include financial constraints due to the cost of advanced AI tools, technical complexity, data privacy concerns, lack of awareness, integration challenges, content originality worries, ethical concerns, limited internet access, resistance to change, compatibility issues, legal and copyright concerns, and the time and effort required for learning to use AI tools. These findings provide valuable insights into the challenges that bloggers face when considering AI adoption in their work.

- The majority of respondents (92.5%) believe that AI poses ethical concerns in the field of blogging. This highlights the awareness and recognition of ethical issues associated with AI technology. These ethical concerns may revolve around issues such as plagiarism, bias, data privacy, transparency, and content quality.

- Respondents provide a range of best practices for responsible AI use in blogging. These include transparency, content review, addressing copyright and plagiarism, bias mitigation, data privacy, maintaining a human touch in content creation, ethical considerations, accessibility, considering the environmental impact, user engagement, education and awareness, and creating a feedback loop. These best practices serve as a guideline for bloggers to ensure the responsible and ethical use of AI in their work.

- Nearly half of the respondents (46.0%) have received training on AI ethics, while 54.0% have not. This finding suggests a significant interest in AI ethics training, indicating that many bloggers are proactive in educating themselves about the responsible and ethical use of AI in their blogging activities.

In summary, the research findings reveal that Enugu bloggers are highly aware of AI, with varying levels of understanding. The majority have embraced AI tools in their blogging activities and

acknowledge the ethical implications associated with AI. There is also a strong emphasis on best practices for responsible AI use. However, challenges and barriers to AI adoption exist, particularly related to cost, technical complexity, and data privacy.

These findings provide valuable insights into the dynamics of AI adoption in the field of blogging, emphasizing the need for training and education on AI ethics to promote responsible and ethical AI usage. The diverse benefits and limitations highlighted in the study contribute to a comprehensive understanding of the role of AI in the blogging industry and the challenges bloggers face when integrating AI tools into their work.

SUMMARY OF FINDINGS

The research project aimed to investigate several aspects related to AI awareness, understanding, usage, ethical concerns, and best practices among Enugu bloggers. The research sample includes 200 respondents, with 38.5% females and 61.5% males. The majority of respondents (46.0%) fall within the 26-35 age group, indicating a strong presence of individuals in their working years. Most respondents are single (66.0%), with 32.0% being married, and only 2.0% being divorced. In terms of academic qualification, 62.0% have HND/B.Sc. degrees, 22.5% have WAEC/SSCE qualifications, 13.5% have M.Sc., and 2.0% have Ph.D.

100% of the respondents are aware of artificial intelligence (AI), indicating unanimous and complete awareness among the sample. The understanding of AI varies, with 75.5% rating their understanding as "Good" or "Excellent," while 8.5% feel their understanding is "Limited" or "Very Limited." This diversity in understanding reflects a range of AI knowledge levels.

A significant majority of respondents (92.5%) have used AI tools for their blogging activities. Benefits of AI usage include improved writing quality, time savings, SEO optimization, content personalization, 24/7 user engagement through chatbots, and data analysis for decision-making. Limitations and barriers to AI tool adoption include cost, technical complexity, data privacy concerns, lack of awareness, integration challenges, content originality worries, ethical concerns, limited internet access, resistance to change, compatibility issues, legal and copyright concerns, and the time and effort required for learning to use AI tools. A significant majority (92.5%) of respondents believe that AI poses ethical concerns in the field of blogging.

Respondents provided a range of best practices for responsible AI use in blogging, including transparency, content review, addressing copyright and plagiarism, bias mitigation, data privacy, maintaining a human touch in content creation, ethical considerations, accessibility, considering the environmental impact, user engagement, education and awareness, and creating a feedback loop. These best practices serve as a guideline for bloggers to ensure responsible and ethical AI usage.

Nearly half of the respondents (46.0%) have received training on AI ethics, while 54.0% have not. This finding suggests a significant interest in AI ethics training, indicating that many bloggers are

proactive in educating themselves about the responsible and ethical use of AI in their blogging activities.

CONCLUSION

The research project offers valuable insights into the state of AI awareness, understanding, usage, and ethical considerations among Enugu bloggers. The unanimous awareness of AI is a notable finding, demonstrating that all respondents are knowledgeable about AI. However, variations in understanding and the presence of ethical concerns highlight the complexity of AI adoption in the field.

The adoption of AI tools for blogging is widespread, with numerous benefits identified. However, bloggers also face significant challenges and barriers to AI tool adoption, which need to be addressed to promote responsible and ethical usage. The ethical implications of AI in blogging underscore the importance of maintaining transparency, content quality, and user data privacy.

The best practices outlined by respondents provide a roadmap for bloggers to responsibly incorporate AI into their work. Training on AI ethics is crucial to ensure bloggers are well-informed about the ethical implications of AI technology.

Recommendations

i. Promote AI Awareness and Education:

- For Bloggers: Bloggers should actively seek opportunities to enhance their understanding of AI. This can be achieved through online courses, workshops, and seminars focused on AI and its applications in the field of blogging.
- For Educational Institutions: Educational institutions should consider incorporating AI and machine learning courses into their curriculum to equip students with the knowledge and skills required to leverage AI effectively in their blogging activities.

ii. Address Barriers to AI Tool Adoption:

- Cost: Blogging platforms and AI tool providers should explore options to make AI tools more accessible and affordable to bloggers, especially those with limited budgets.

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