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Reimagining Textbook Editing in the Age of Artificial Intelligence: Perspectives from Textbook Publishers in Zimbabwe

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Abstract

The emergence of artificial intelligence (AI) has had a profound impact on several industries, including education. As AI technologies transform established editorial practices worldwide, the textbook publishing industry is undergoing a significant shift. Grounded in the Unified Theory of Acceptance and Use of Technology, which highlights user intentions in using an Information System (IS) and the subsequent usage behaviour, this paper explores the future of editing with AI among textbook publishers in Zimbabwe. The study adopts a qualitative approach informed by a multiple case study design. The study targeted two editors from five major textbook publishing houses in Zimbabwe, selected purposively for their national

footprint and history of textbook production. Semi-structured interviews were used to gather data, which was then thematically analysed. Findings indicate that AI tools like Grammarly and Microsoft Editor are commonly used by textbook editors. Automatic content generation, improved efficiency, and enhanced productivity were found to be some of the benefits of using AI in editing. However, several challenges were identified, including, lack of infrastructure, loss of employment and ethical considerations. Strategies for the successful implementation of AI in textbook editing include human-AI collaboration, innovation as a market need and gradual implementation and continuous improvement. The study concludes that meaningful AI integration requires contextual adaptation, human oversight and capacity building. The researchers recommend that textbook publishers continue integrating more AI tools into their processes, and they should be provided with training on the use of AI tools so that they gain knowledge on how to use them effectively.

Keywords: Artificial Intelligence; Editorial Innovation; Publishing Technology, Textbook Editing

Introduction and background

Textbook publishers play an important role in developing educational narratives and ensuring that learning materials are relevant to local contexts (United Nations Educational, Scientific and Cultural Organisation [UNESCO], 2017). The effectiveness of textbooks varies; the greater the power that textbooks have to increase students' competency, the better quality the textbooks have (Pavesic & Cankar, 2020). According to Gasva (2022), in Zimbabwe, where English is a second language, textbook editors may encounter difficulties due to variable degrees of English proficiency. Some editors may struggle with the intricacies of English grammar, vocabulary and colloquial expressions, thereby limiting their capacity to accurately and efficiently edit textbooks. This can affect the quality and intelligibility of the information, especially for students who are studying English as a second language. Generally, textbooks should not possess such issues since they are widely recognised as essential resources for teaching and learning. Writerful Books (2024) argues that the emergence of AI in the publishing sector has been widely reported, but less attention is paid to the technology's possible effects and how book editors might use it to streamline their processes. AI has the potential to completely transform the publishing sector by greatly accelerating the rate and effectiveness of content delivery and publication (Writerful Books, 2024).

According to Marr (2018), AI is a technology based on a computer or robot, controlled by mechanisms to perform various tasks that typically require human intelligence and discernment. Although technology cannot undertake the wide variety of tasks usually completed by humans in the book publishing process, proofreading and copy editing remain

essential yet time-consuming elements of the editing process (Vitello, 2022). AI could enhance the process by offering tools that correct grammar, complete sentences, and write essays (Walton Family Foundation, 2023). The use of AI for proofreading and copy editing presents intriguing opportunities for textbook publishers to contemplate. While the current editing software cannot replace an editor in the editorial process—and may never do so—basic corrections are already feasible today. Editing tools will likely continue to be developed in the future, enhancing efficiency throughout the process (Fogden, 2018).

AI has made massive inroads into the publishing industry (Harris & Altar, 2023). A report by the Publishers Association UK (2020) shows that 45% of textbook publishers have adopted AI for editorial purposes. This shows that a significant number of publishers have started using AI to produce error-free work. AI can automate tedious editing tasks, thus helping to save time and effort, allowing editors more time to focus on other aspects of their job (Staff Writer, 2023), ensuring consistency and maintaining editorial standards (Dere, 2023). This integration of AI in the textbook industry is part of a broader shift towards a technology-driven approach, which has already revolutionised the book editing process (Lee, 2023). The process is becoming increasingly efficient due to AI technologies, which enable editors and publishers to identify mistakes, detect plagiarism, and produce assessments with speed and accuracy (Writeful Books, 2024). Kooli (2023) acknowledges that AI tools can add value by enhancing the quality of manuscripts, although they are capable of making mistakes, like producing inaccurate information and plagiarism. The possibility of automation is one of the primary drawbacks of AI in book editing and publishing. By automating, AI could lead to a lack of originality and diversity in writing, decrease the need for human editors and publishers, which may lower the quality of publications (Writeful Books, 2023). AI lacks the human judgment and expertise of a seasoned publisher or editor, which is essential for creating a high-calibre book.

Despite the fast-paced breakthroughs in AI and its transformational potential, the use of AI in textbook production in Zimbabwe is still limited. Moyo (2020) exposed a Grade Three (3) “new curriculum” textbook that declared the musician Lovemore Majaivana as deceased, whilst he is alive. Similarly, Mtisi (2018) laments the deplorable state of English textbooks that seem to be filled with errors, stating that,

I do not remember how many terrible common errors I have identified in passages appearing in popular English language textbooks currently in use in schools.

This highlights a gap in editing where textbooks reach the target audience with errors despite going through an editing process. Through this analysis, the researchers sought to explore the future of editing with AI among textbook publishers in Zimbabwe. The objectives of the study were to: (i) identify the AI tools that textbook publishers in Zimbabwe are currently using, (ii) establish the challenges faced by textbook publishers in using AI in editing in Zimbabwe, (iii) ascertain the potential benefits of using AI in textbook publishing in Zimbabwe, and (iv) identify strategies for the successful implementation of AI editing in textbook publishing in Zimbabwe.

The following section on literature review discusses various perspectives on the future of AI editing among textbook publishers. It covers the AI tools currently used by publishers, the challenges and potential advantages of integrating AI into textbook publishing, and strategies for the successful implementation of AI editing.

Overview of Artificial Intelligence

Artificial intelligence can be defined as the general term for the technology of the development of machines, which are created entirely by artificial means and can exhibit behaviours and mimic human beings, without taking advantage of any living organism (Mijwel, 2015). Prof. John McCarthy first introduced the idea of artificial intelligence in 1955 when he established the scientific methods for machine learning. This technology has transformed the computation of intelligent entities to perform and simplify human jobs, make decisions, and solve issues over time (de Lima-Santos & Ceron, 2022; Broussard et al., 2019). Major developments in the field of AI started in the 1950s when pioneers of Mathematics and other related fields of study set out to demonstrate progress towards the goal of developing general intelligence, which included, but was not limited to, playing games, classifying images and understanding natural language (OECD, 2017). With the evolution of computer technology and the advancement of mathematical modelling techniques, a new AI paradigm emerged and was widely accepted in early 2018 (Khan et al, 2018). At the end of 2018, the European AI measurement landscape was full of activity as multiple organisations released comprehensive reports and frameworks for assessing AI systems. Notably, the Joint Research Centre of the European Commission (EC-JRC) contributed to the flurry of publications with its report that aimed at how to assess and regulate AI systems around the world (Craglia et al., 2018). In early 2019, the World Intellectual Property Organisation (WIPO) also published a report focusing on AI, outlining

the latest trends and innovations in the field (WIPO, 2019). Beyond being an academic field, AI has also become an important factor in societal and economic mainstream technologies such as banking, publishing and medical diagnosis, to mention a few (Frank et. al., 2019). With the development of technologically driven systems for the creation, distribution, and preservation of information and services, the international economy and other industries like engineering, agriculture, politics, and media have been profoundly upended by the rapid advancements in AI (Birtchnell, 2018; Kamble & Shah, 2018; Kieslich et al., 2022; Tubaro et al., 2020). The use of artificial intelligence continues to evolve into the 2020s and beyond, finding application in a wide range of fields (Russell, 2020).

AI in textbook publishing

AI-based technologies are being developed and implemented in the educational publishing industry to assist authors, editors, and publishers (Chiu et al., 2023). With the rapid development of mobile internet and AI technology, the digital publishing industry urgently needs to adopt intelligent solutions to change how content is produced and services are delivered (Chen et al., 2015). Academic editing can be a daunting task for many publishers and editors, whether they are native or non-native English speakers (Lin and Morrison, 2021). As AI-powered writing and editing tools become more available, some editors and publishers turn to these technologies to make the editing process less overwhelming (Fyfe, 2022). These tools include Grammarly, PerfectIt, QuillBot, Trinka, Hemingway Editor, and ChatGPT (Al Sawi & Alaa, 2024). Gupta (2023) states that Grammarly and ProWritingAid provide automated grammar, punctuation, and style guidance, thereby transforming the editing process. ChatGPT, developed by OpenAI, enables text generation from user prompts (OpenAI, 2022). This language model can also produce coherent and contextually relevant responses across a wide range of conversations (Gonsalves, 2023); paraphrasing tools like QuillBot are programmes that allow users to rephrase writing without changing its original meaning (Bin & Michael, 2019) as well as Turnitin, a widely-used plagiarism detection tool designed to reduce academic dishonesty and encourage originality in written work (Brame, 2016).

Experts argue that embracing AI is not a matter of choice, but a matter of determining the appropriate timeline and strategy for implementation, since AI represents a cognitively and economically efficient component that is growing in significance for businesses (Hajli et al., 2021). However, in the process of embracing AI in their processes, textbook publishers face

several challenges, including legal and ethical considerations, poor information technology infrastructure, employment loss, and cognitive awareness. Jewandah (2018) and Brusilovsky, Sosnovsky and Thaker (2022) posit that as media technology continues to advance, it has become progressively evident that the incorporation of AI into various domains is not a futuristic concept, but rather a tangible reality. They further concede that the integration of AI in writing, editing, production and directing tools is fundamentally transforming the approaches by which information, news and diverse content are created and conveyed to audiences. According to Pasi (2024), words and phrases can have multiple meanings, and since AI does not always understand the right context, this becomes a problem when editing, especially in indigenous languages. Similarly, Bedu (2024) points out that the fact that African languages do not always have a comparable semantic object is one of the challenges for using AI tools in editing. Afolabi and Jimoh (2024) state that AI poses challenges, including the need for publishers to adopt new technology and the potential danger to the employment of publishing specialists.

AI provides writers with tools for improved writing and editing (Onoja, 2023). Gupta (2023: 72) says that real-time feedback is provided by using AI technologies, which saves a large amount of time compared to manual proofreading. In addition, Gupta (2023: 71) and Al Sawi and Alaa (2024) state that using AI in editing increases efficiency, saves time, and improves production and output. Afolabi and Jimoh (2024) also posit that AI can improve the publishing process for books by providing tools for better writing, editing, production, distribution, and marketing. According to Pasi (2024), the AI editing tools are extremely fast at translating, saving time. AI systems can translate large amounts of text in the blink of an eye, outperforming human translators. AI translator technologies are more affordable than hiring a translator (Pasi, 2024), especially when the text needs to be translated into multiple languages. In support, Mohammed et. al (2024) opine that AI tools assist in avoiding human errors, ensuring consistency in editing and can be tailored to specific topics and sectors, leading to more accurate and relevant results.

According to Gupta (2023:71), AI editing tools have revolutionised textbook production by enabling seamless, real-time collaboration among editors, authors, and subject matter experts. These platforms enhance efficiency by allowing multiple contributors to work on a document simultaneously, streamlining the review and revision process, and reducing turnaround times. Onoja (2023) states that AI tools have transformed textbook editing, allowing for greater speed,

innovation, and accessibility in educational publishing. Reddy, Gangle and Srivastava (2024) point out that Pearson and McGraw-Hill Education have included interactive features in their digital textbooks, representing a substantial shift in educational material production. Implementing AI in textbook publishing ensures relevance and uniformity. According to Bedu (2024), Grammarly and other automated proofreading and grammar checkers maintain high standards for punctuation, spelling, and grammar (Gufron & Rosyida, 2018). These technologies eliminate human error by providing instant suggestions and improvements, which may be missed during manual proofreading. Editors can increase content quality by following specified style guidelines and ensuring consistency across the manuscript (Bedu, 2024).

Theory

This study employed the Unified Theory of Acceptance and Use of Technology (UTAUT), developed by four scholars: Venkatesh, Morris, Davis, and Davis (2003). The UTAUT seeks to describe user intentions in using an Information System (IS) and the subsequent usage behaviour. The UTAUT identifies four important drivers of behavioural intention to adopt a technology: performance expectancy, effort expectancy, social influence and facilitating conditions. According to Rogers (2003) as well as Venkatesh, Morris, Davis and Davis (2003), for an innovation to be adopted and employed, there must be 'facilitating conditions.' These are conditions that make it easier for the intended user to accept and use a specific technology (Rogers, 2003; Venkatesh et al, 2003).

The UTAUT model was employed to assess how textbook publishers use AI technologies. This model helps understand the factors influencing the adoption of these AI tools and explores their potential future in editing within the textbook publishing industry. Curtis et al (2010) applied UTAUT to examine social media adoption by 409 non-profit organisations in the United States. Verhoeven, Heerwegh, and Wit (2010) used UTAUT to study the frequency of computer use among 714 university freshmen in Belgium. Salim (2012) applied UTAUT to assess social media acceptance in Egypt. This study uses the UTAUT framework, which centres on user acceptance of new AI technologies, to understand initial perceptions of textbook editors and how these perceptions evolve with increased experience using AI. The researchers explored its four main drivers: performance expectancy (believing AI improves efficiency and accuracy considering challenges and benefits), effort expectancy (ease of use of AI tools), social influence (peer opinions and industry trends), and facilitating conditions (necessary

infrastructure, resources, and strategies for successful implementation), to explain why AI is being integrated into textbook editing.

Methodology

Research methodology is a structured and scientific approach used to collect, analyse and interpret quantitative or qualitative data to answer research questions or test hypotheses (Sreekumar, 2023). In this research, an interpretivist research approach in the form of a qualitative case study, which provides a comprehensive understanding of the research problem, was used. The research design for this study was a multi-case study, specifically focusing on Zimbabwean textbook publishing companies as the cases under study. This design allowed for an in-depth exploration of the research problem within a specific context. The population of this study included textbook publishers. The researchers employed the services of five (5) educational publishers based in Zimbabwe, from which two editors were selected from each organisation, giving a total of ten (10) participants. However, out of the ten, the researchers successfully conducted interviews with seven (7), resulting in a response rate of seventy per cent (70%). To ensure a representative sample, purposive sampling was used as it enabled the researchers to select participants who had the knowledge and experience about the issue being studied. The data collection methods for this study included semi-structured interviews with textbook editors. Semi-structured interviews allowed the participants to freely share their views. The participants were asked questions, which included: How well do you understand the concept of AI? Which AI tools do you use for editing purposes? What are the challenges you face when using AI tools? What benefits have you enjoyed in using AI tools? What strategies should be employed to adopt AI technologies to improve the editing process of textbooks? The collected data was analysed using thematic analysis. It was useful to use thematic analysis in summarising key features of a large data set and made the researchers take a well-structured approach in handling data, helping to produce a clear and organised final report (King, 2004:258). Ethical considerations were also addressed in this chapter, ensuring the protection of participants' rights, confidentiality and informed consent. For purposes of privacy and confidentiality, and protecting the anonymity of participants, the researchers coded the participants from Editor/Publisher 1 to Editor/Publisher 7 (EP1- EP7).

Data Analysis

The research's goal was to explore the future of textbook editing with AI. Interviews were employed as the method of data collection. The data obtained from the participants assisted in addressing the study's research objectives.

Which AI tools are currently used by textbook publishers?

Out of the seven (7) editors that were interviewed, two (2) expressed familiarity with AI but revealed that they have not yet integrated any AI tools into their editing processes. One of them remarked, "Yes, I am familiar with the concept of AI, but the organisation has no specific AI tools that it is using in editing" [EP7]. In corroboration, EP2 said, "Yes, I am familiar with the concept of AI. We are yet to install specific AI tools for our projects". This suggests a cautious approach to adopting AI technology, possibly due to concerns about its impact on traditional editing methods or a lack of awareness about its potential benefits in editing. Conversely, the majority of editors indicated that they are actively utilising AI tools in their work. One of the participants said, "Yes, I am familiar with the concept of AI in editing. Our organisation is critical of its use and keeps it at a bare minimum to ensure respect for authentic ownership and generation of intellectual property. Tools such as Grammarly and Meta AI are mainly used" [EP3]. In agreement, EP1 stated that, "We are currently using AI tools like Grammarly and Microsoft Editor". These diverse responses from textbook editors highlighted a varying degree of AI adoption within the industry. While some editors remained cautious and were yet to incorporate AI tools into their workflow, others were already reaping the benefits of AI-enhanced editing processes, which include increased efficiency, improved quality, to mention just a few. This underscored the evolving landscape of textbook editing and the ongoing debate surrounding the integration of AI into traditional editorial practices.

What are the challenges faced by textbook publishers in using AI for editing?

When asked about the challenges that they face when using AI in editing, editors expressed apprehensions about the difficulties that come with personalising AI-generated content. They voiced out concerns about overdependence on AI in the editing process. The ability of AI to correct subject-specific information was also noted as a potential challenge, as editors emphasised the importance of maintaining a balance between leveraging AI capabilities and preserving the expertise and judgment of human editors. EP5 also raised a pertinent point stating that, "there are copyright concerns with content provided by AI software. Who owns

this content? For example, if you use AI software to rewrite content in the editorial process, can the publisher fully claim rights to this content, or does it partially belong to the inventor of the software? There are still some loopholes that need attention for clear grants of rights of the intellectual property produced through AI.” This highlighted the need for a clear approach to AI integration, ensuring that AI tools complement and enhance human editorial skills without overshadowing them. As AI continues to evolve, it becomes imperative to address the evolving challenges and ethical considerations associated with the use of AI in shaping educational materials.

What are the benefits of using AI in textbook publishing?

Additionally, when asked, the majority of the participants stated that AI helps to make the processes easier and ensures the production of quality textbooks. The editors overwhelmingly highlighted that AI tools have indeed significantly contributed to time saving, increased efficiency and enhanced accuracy in the editing processes. This suggests that the integration of AI has streamlined the editing workflow, hence allowing editors to focus on higher-level tasks while relying on AI for the time-consuming tasks. Furthermore, the editors emphasised that the accessibility of editing resources has been notably enhanced through the use of AI. This increased accessibility not only empowers editors to work more efficiently but also opens new possibilities for comprehensive editing, language analysis and content optimisation. The feedback from editors underscores the transformative impact of AI on textbook editing. This is evidenced by the following testimonies from different textbook editors:

EP1: “AI has been good to us as editors. There are errors that an editor might miss, which AI picks up. Paragraphs that may be challenging to rephrase, that AI does with so much ease. AI has increased the efficiency and accuracy of the editing process.”

EP2: “AI has positively impacted the publishing industry by automating tasks such as formatting, editing and proofreading. It minimises spelling and grammatical errors. AI’s ability to suggest alternative words and phrases enhances clarity and readability.”

EP3: “AI in editing enhances efficiency and may also improve turnaround time for the editing and proofreading processes.”

EP4: “One of the benefits of using AI in our processes is that if effectively and attentively used, AI saves a lot of time for editors and can spot errors that they might have missed.”

EP5: “AI not only corrects grammar and constructs sentences, it also saves a lot of time for editors and publishers by offering its services; therefore, the publishing industry should fully embrace AI into its processes.”

Strategies for the successful implementation of AI editing in textbook publishing

For the successful implementation of AI in editing textbooks, the participants pointed out that textbook publishers should fully embrace AI into their editing processes, as it offers more benefits than shortcomings. EP2 remarked, “Editors should fully embrace AI into their editing processes because it enhances accuracy and readability. It also speeds up the overall production process and quality of the finished products.” This adaptive approach involves fostering a culture of openness to technological advancements and embracing the transformative potential of AI in the editing process. Furthermore, the editors underscored the significance of fostering collaboration between human editors and AI as this collaborative approach seeks to leverage the strengths of both human editors and AI capabilities, thus ensuring the production of quality textbooks. In support of the aforementioned strategy, EP1 stated that, “AI is worth adopting, but it should not be taken as a replacement editor. AI cannot take away the human element in editing; it should simply be treated as a tool that the editor can manipulate and control.” In confirmation, EP5 said that “AI has become part of the editorial process, which cannot be avoided, but also it cannot work on its own without being supervised by a human.” Additionally, editors pointed out that the selection of appropriate AI technologies is a crucial strategy for successful implementation. Editors emphasised the need for a discerning approach in identifying and integrating AI tools that align with the specific requirements and objectives of textbook editing. This strategic selection process involves evaluating the capabilities, ethical considerations and compatibility of AI technologies to ensure their seamless integration into the editing workflow, ultimately contributing to the enhancement of editing efficiency and quality.

Discussion

The results showed that most textbook publishers have not yet fully integrated AI into their editing processes due to the challenges that they face in trying to adopt those AI technologies. Further analysis revealed that in as much as there is a wide range of AI tools that are available for publishers, only a select few are being used in the editing processes, which further slows down the rate at which AI is being adopted by the publishing industry. However, a significant number of benefits, including accessibility, increased efficiency and accuracy, as well as saving time in using AI in textbook editing, were found.

From the data collected, it was evident that textbook publishers are using AI tools to edit. The participants were requested to list the AI tools that they were presently employing in their workflows, and the frequently mentioned tool was Grammarly. This clearly shows that most publishers have not yet fully embraced AI in their editing processes. It was observed that editors are not always able to identify errors, but by using the specified software, they guarantee that manuscripts undergo comprehensive scrutiny and editing to achieve perfection. Apart from Grammarly, some participants also pointed out that they use Microsoft Editor for checking spelling, grammar and clarity in documents. The researchers observed that whenever textbook editors and publishers encounter issues with the spelling and grammar check, they simply need to turn to this software so that they can produce error-free textbooks. This is supported by Gupta (2023), who says that Grammarly and ProWritingAid offer automated grammar, punctuation, and style advice. However, the fact that other organisations revealed that they are not using any AI tools as of yet shows how slow these organisations are in adopting AI into their processes. According to Venkatesh et. al (2003), when adopting the UTAUT model, some users may be slow to adopt the technologies due to varying reasons. In this case, the editors are slowly adopting the use of the AI tools, perhaps because of the infrastructure shortages.

While AI has the potential to revolutionise the publishing industry, there are several challenges that textbook publishers face when implementing AI technologies, such as the ability of AI to correct subject-specific items, legal and ethical considerations, as well as employment loss. In addressing these challenges, the participants stated that as an editor, one needs to be careful and pay attention to detail when using AI for editing. The results highlighted that editing using AI software should not be done without human supervision. This is in line with Sundblad (2018), who agrees that AI programs are not intended as standalone editors, but rather as

complements to human editors for fine-tuning texts. Additionally, Nguyen et. al (2023) contend that some researchers have expressed worries about the potential dangers of AI. These include the possibility of dismissing the role of publishers and editors, contributing to a rise in plagiarism. However, in making sure that plagiarism is detected and avoided, the participants stated that they make use of plagiarism detection software tools like Turnitin and Plagiarism checkers. From the presented results, one may be correct to say that textbook editors and publishers often lack originality and fail to recognise the repercussions of reproducing someone's work without proper acknowledgement. However, instead of copying other people's work, they should play a role in making sure that they produce accurate and original work. Moreover, the researchers note that by acknowledging and proactively addressing these challenges, textbook publishers can increase the chances of the successful implementation of AI-powered editing, which in turn can enhance their editorial processes and improve the quality of content produced.

The research findings also indicated that all the editors who were interviewed highlighted the important role that AI plays in the processes of textbook editing and publishing. Most editors pointed out that AI saves time, increases accuracy and efficiency and also improves the accessibility to information in various languages through the use of AI tools that can translate information. Based on the research findings, it was observed that the perspectives and insights shared by the study participants were consistent with the findings that emerged from the literature review as Anam et. al, (2021) brought out that one of the most important benefits of AI tools in textbook editing and publishing is that they can assist editors and publishers in paraphrasing proper discourse markers, changing word forms, choosing proper tenses of verbs, rewriting the source text into a paraphrase with different writing styles and rewording vocabulary from source text. It can also be inferred that AI is indeed beneficial to textbook publishers and editors as it minimises errors and makes the work clearer and readable, thereby increasing efficiency and accuracy. Additionally, the Walton Family Foundation (2023) argues that, as proofreading and copy editing are essential and also very time-consuming parts of the editing process, AI could make them more profitable by offering its services that can correct grammar, construct sentences, and write essays. The researchers also found out that AI can make the time-consuming editorial processes more profitable by saving time through carrying out other tasks for the editors and publishers. One of the drivers of the UTAUT model is the social influence. Editors are influenced by others who have experience in using AI tools in the

publishing industry, which is why they are also adopting and seeing the benefits of using the tools effectively.

The research findings also revealed that textbook publishers and editors are working towards adapting to the dynamic technological changes. Roetzel (2019) argues that despite the risks associated with using AI-based tools, their potential benefits and the changing landscape of publishing mean that editors and publishers must embrace these technologies to remain competitive. Bedwell et. al (2012) assert that with human AI-collaboration, the strengths of both humans and AI can be combined to create a more powerful and effective workforce. Most of the responses pointed out that AI is slowly but surely becoming a part of people's lives, and it cannot be avoided; rather, humans must find a way to work with AI collaboratively. From the findings, the researchers also noticed that for AI to work effectively and efficiently with humans, a human supervisor is needed to control and manage the AI tools. It can also be said that for textbook publishers to successfully implement AI into their processes, they must adapt to technology and stay updated with the latest trends in technology and try using the software so that they can measure their performance and come up with strategic ways in which they can fully adapt to it. However, it was noted that most editors fail to choose the right tools to employ in their processes. For them to be able to select the right tools, they have to clearly define the problems that need to be solved by AI and conduct thorough research on the use and management of these tools. Facilitating conditions of the UTAUT model influence the adoption of the technologies. In this current research, editors need to adopt various strategies to implement the use of AI successfully.

Conclusion

AI plays an important role in the editing of textbooks because it helps to spot errors that would have been omitted. From the findings, it was evidenced that textbook publishers have started making use of AI tools like Grammarly and Meta AI. These tools help in constructing sentences, checking grammar and punctuation, correcting spellings, as well as improving clarity and readability in textbooks. The researchers concluded that textbook publishers and editors in Zimbabwe do not understand the importance of AI in editing, and they have not fully embraced the technology into their editing processes. This is evidenced by the small number of AI tools that they are currently using in their processes from a wide range of available tools. AI ensures inclusive growth, enhanced learning and the production of quality materials.

Textbook publishers and editors mentioned that AI helps increase efficiency and accuracy, saves time as well and improves the accessibility of textbooks. However, this excluded other benefits that AI can bring into their processes, such as automated fact checking, reduced textbook shortages and fostering innovation. The researchers believe that insufficient knowledge of AI and a lack of research have led to the release of inadequately developed textbooks into the market. The research findings also indicated that the difficulties experienced by textbook publishers in Zimbabwe when employing AI for editing highlight the complex and varied nature of integrating AI technologies into the publishing sector. The study concluded that despite these obstacles, the potential advantages of AI in improving the standard and production of textbooks emphasise the significance of devising solutions to address these challenges. From the findings, the strategies used for the successful implementation of AI editing in textbook publishing include human-AI collaboration, adapting to change and selecting appropriate AI technologies. The researchers' conclusion suggests that publishers are actively addressing the issue of errors in textbooks by implementing strategies to successfully implement AI into their editing processes. This demonstrates their commitment to producing textbooks that are free from errors in the future.

The researchers recommend that textbook publishers should:

- Have an awareness program done by AI experts in the form of workshops/seminars so that the editors are well knowledgeable about the adoption of AI tools.
- Purchase and license genuine AI tools that are specific for editorial purposes.

Research on the ethical and legal considerations to implement the use of AI in textbook production in Zimbabwe is needed. This will help in overcoming the challenges of plagiarism in the publishing industry.

References

- Afolabi, A. A., and Jimoh, F. O. 2024. Artificial intelligence for publishing: the impact of ChatGPT on book publishing education in Nigeria. *Bichi J. Technol. Educ.* 7: 64–74.
- Al Sawi, I., and Alaa, A. 2024. Navigating the impact: a study of editors' and proofreaders' perceptions of AI tools in editing and proofreading. *Discovery Artificial Intelligence* 4:23. 10.1007/s44163-024-00116-5

- Bedwell, W. L., Wildman, J. L., Diaz Granados, D., Salazar, M., Kramer, W. S., and Salas, E., 2012. Collaboration at work: An integrative multilevel conceptualisation. *Human Resource Management Review*. 22(2):128-145.
- Bedu, A. M. 2024. Artificial intelligence (AI) challenges and opportunities in translation: An African experience. *Al-Noor J. Humanit.* 2: 283–307. 10.69513/jnfh.v2n3.en12
- Bin, Z. and Michael, T. 2019. *Recent developments in technology-enhanced and computer-assisted language learning*. Hershey, PA: IGI Global.
- Birtchnell, T. 2018. Listening without ears: Artificial intelligence in audio mastering. *Big Data & Society* 5(2). 2053951718808553. <https://doi.org/10.1177/2053951718808553>
- Broussard, M., Diakopoulos, N., Guzman, A. L., Abebe, R., Dupagne, M., and Chuan, C. H. 2019. Artificial Intelligence and Journalism. *Journalism & Mass Communication Quarterly* 96(3) 673-695.
- Brusilovsky, P., Sosnovsky, S., and Thaker, K. 2022. The return of intelligent textbooks. *AI Magazine* 43(3) 271-340.
- Chen M. H., Huang S. T., Chang J. S., and Liou H. C. 2015. Developing a corpus-based paraphrase tool to improve EFL learners' writing skills. *Computer Assisted Language Learning* 8(1): 22-40
- Chiu, T. K. F., Qi, X., Xinyan, Z., Ching, C., and Miaoting, C. 2023. Systematic literature review on opportunities, challenges, and future research recommendations of artificial intelligence in education. *Computers and Education: Artificial Intelligence*. 4:100-118
- Craglia M. et al. 2018. Artificial Intelligence - A European Perspective. [Online] Available from: <http://doi.org/10.2760/11251> (Accessed 09 September 2024)
- Curtis, L., Edwards, C., Fraser, K. L., Gudelsky, S., Holmquist, J., Thornton, K. and Sweetser, K. D. 2010. Adoption of social media for public relations by non-profit organisations. *Public relations review* 36 (1): 90-92.
- de-Lima-Santos, M. F., and Ceron, W. 2022. Artificial Intelligence in News Media: Current Perceptions and Future Outlook. *Journalism and Media* 3(1):13-26.

Dere, O. 2023. Artificial Intelligence Tools in Academic Article Writing: Is it a Tool or a Co-Author? *Eur J Ther.* <https://doi.org/10.58600/eurjther1839>

Fogden, T. 2018. Could Google's AI-Powered Grammar Suggestions Change Proofreading? [Online] Available from: <https://tech.co/google-ai-grammar-suggestionsspellcheck-proofread-2018-07>. (Accessed 09 September 2024)

Fyfe, P. 2022. How to cheat on your final paper: Assigning AI for student writing. *AI & Society.* 1- 11. <https://doi.org/10.1007/s00146-022-01397-z>

Gasva, D. 2022. Factors That Affect the Teaching of English Composition at Ordinary Level: Case of Hwange District in Zimbabwe. *Sumerianz Journal of Education, Linguistics and Literature* 5(1): 1-9

Gufron, M. A., and Rosyida, F. 2018. The Role of Grammarly in Assessing English as a Foreign Language (EFL). *Writing, Lingua Cultura* 12(4) 395-396.

Gupta, S. S. 2023. A Textbook of Editing. New Delhi: Wisdom Press. [Online] Available from: <https://www.wisdompress.co.in/wp-content/uploads/2023/10/A-Textbook-of-Editing.pdf#page=72>. (Accessed 02 July 2025)

Harris, E., and Altar, A. 2023. AI's Inroads in Publishing Touch off Fear and Creativity. [Online] Available from: <https://www.nytimes.com/2023/08/02/books/ais-inroads-in-publishing-touch-off-fear-and-creativity.html> (Accessed 20 April 2024)

Jewandah, S. 2018. How Artificial Intelligence is changing the banking sector - A case study of the top four Commercial Indian Banks. *International Journal of Management, Technology and Engineering.* [Online] Available from: <http://ijamtes.org/gallery/66.july%20ijmte%20-%20711.pdf> (Accessed 02 July 2025)

Kamble, R. and Shah, D. 2018. Applications of Artificial Intelligence in Human Life. *International Journal of Research - GRANTHAALAYAH* 6(6), 178-188. <https://doi:10.29121/granthaalayah.v6.i6.2018.1363>

Khan, F. H., Ashraf, U., Altaf, M. A. B., Saadeh, W. 2018. A Patient-Specific Machine Learning based EEG Processor for Accurate Estimation of Depth of Anesthesia. In Proceedings of the 2018 IEEE Biomedical Circuits and Systems Conference (BioCAS), Cleveland, OH, USA, 17-19 October 2018

- Kieslich, K., Keller, B., and Starke, C. 2022. Artificial intelligence ethics by design. Evaluating public perception on the importance of ethical design principles of artificial intelligence. *Big Data & Society* 9(1). <https://doi.org/10.1177/20539517221092956>
- King, N. 2004. Using templates in the thematic analysis of text. In Cassell C., Symon G. (Eds.). *Essential guide to qualitative methods in organisational research*. London: Sage.
- Kooli, C. 2023. Chatbots in education and research: A critical examination of ethical implications and solutions. *Sustainability* 15(7): Article 1564. <https://doi.org/10.3390/su15075614>
- Lee, J. Y. 2023. Can an artificial intelligence chatbot be the author of a scholarly article? *Journal of Educational Evaluation for Health Professions* 20. 6-11.
- Lin, L. H. F. and Morrison, B. 2021. Challenges in academic writing: Perspectives of Engineering faculty and L2 postgraduate research students. *English for Specific Purposes* 63: 59-70. <https://doi.org/10.1016/j.esp.2021.03.004>
- Marr, B. 2018. The key definitions of artificial intelligence (AI) that explain its importance. [Online] Available from: <https://www.forbes.com/sites/bernardmarr/2018/02/14/the-key-definitions-of-artificial-intelligence-ai-that-explain-its-importance/> (Accessed 09 September 2024)
- Mijwel, M. 2015. History of Artificial Intelligence. 3. 1-8. DOI: 10.13140/RG.2.2.16418.15046
- Mohamed, Y. A., Khanan, A., Mohamed, B., Mohamed, A. H. H. M., Adiel, M. A., E., and Elsadig, M. 2024. The Impact of Artificial Intelligence on Language Translation: A Review. *IEEE Access* 12: 25554- 25579
- Moyo, B. (2020). Majaivana alive and well. *B-Metro*. 20 March. Available from: <https://www.bmetro.co.zw/majaivana-alive-and-well/> (Accessed 26 April 2024)
- Mtisi, M. 2018. Morris Mtisi, Education Correspondent. *The Manica Post*, 1-3.
- Nguyen, A., Ngo, H. N., Hong, Y., Dang, B., and Nguyen, B. T. 2023. Ethical principles for artificial intelligence in education. *Educ Inf Technol (Dordr)*. 28(4):4221-4241. <https://doi:10.1007/s10639-022-11316-w>

Onoja, J. B. 2023. Implications of AI on the Nigerian writing industry: opportunities and challenges. *SSRN Electron. J.* 1-9. 10.2139/ssrn.

OpenAI. 2022. ChatGPT. [Online] Available from: <https://openai.com/blog/ChatGPT/> (Accessed 17 February 2024)

Pasi, M. 2024. AI in Book Publishing: A Case Study of Translation and Speech Generation Tools. [Online] Available from: https://www.theseus.fi/bitstream/handle/10024/867822/Mikkola_Pasi.pdf?sequence=2&isAllowed=y. (Accessed 02 July 2025)

Pavesic, B. J., and Cankar, C. 2020. Textbooks and Students' Knowledge. *C.E.P.S Journal.* 12(2). <https://doi.org/10.26529/cepsj.1283>

Publishers Association UK. 2020. The Publishers Association's Annual Report 2020. [Online] Available from: <https://www.publishers.org.uk/publications/the-publishers-associations-annual-report-2020/> (Accessed 09 September 2024)

Reddy, P. B, Gangle, G. R and Srivastava, B. 2024. The future of education in the digital age. International Multidisciplinary Research Foundation Ratna Prasad Multidisciplinary Research & Educational Society. 90:1-18

Roetzel, P.G. 2019. Information overload in the information age: A review of the literature from business administration, business psychology, and related disciplines with a bibliometric approach and framework development. *Business Research.* 12(2): 479-522

Rogers, E. M. 2003. *Diffusion of innovations*. 5th ed. New York: Free Press.

Russell, S. 2020. Human Compatible. Artificial Intelligence and the Problem of Control. Penguin Books.

Salim, B. 2012. An Application of UTAUT Model for Acceptance of Social Media in Egypt: A Statistical Study. *International Journal of Information Science* 2 (6): 92-105.

Sreekumar, D. 2023. What is Research Methodology? Definition, Types, and Examples. [Online] Available from <https://paperpal.com/blog/academic-writing-guides/what-is-research-methodology> (Accessed 23 May 2025)

Staff Writer, 2023. Author Incubator, Editing for Excellence: How is AI Assisting in Book Editing? [Online] Available from: <https://theauthorincubator.com/formatting-forsuccess-how-ai-is-assisting-in-book-formatting/> (Accessed 09 September 2024).

Tubaro, P., Casilli, A. A., and Coville, M. 2020. The trainer, the verifier, the imitator: Three ways in which human platform workers support artificial intelligence. *Big Data & Society* 7(1). <https://doi.org/10.1177/2053951720919776>

United Nations Educational, Scientific and Cultural Organisation [UNESCO]. 2017. Textbooks for sustainable Development: A Guide to embedding. [Online] Available from: <https://unesdoc.unesco.org/ark:/48223/pf0000259932>. (Accessed 20 May 2025)

Venkatesh, V., Morris, M., Davis, G., and Davis, F. 2003. User acceptance of information technology: Towards a unified view. *MIS Quarterly* 27 (3): 425-478.

Verhoeven, J. C., Heerwegh, D., and Wit, K. D. 2010. Information and communication technologies in the life of university freshmen: An analysis of change. *Computers and Education* 55 (1): 53-66.

Vitello, S. 2022. *What impacts success in proofreading? A literature review of proofreading on screen vs on paper*. Cambridge University Press and Assessment.

Walton Family Foundation 2023. Teachers and students embrace ChatGPT for education. [Online] Available from: <https://www.waltonfamilyfoundation.org/learning/teachers-and-students-embrace-chatgpt-for-education> (Accessed 09 September 2024).

WIPO. 2019. Description of Activities on AI. [Online] Available from: World Intellectual Property Organisation (WIPO) - AI for Good (Accessed 25 April 2024)

Writerful Books. 2024. How AI is Changing the Book Publishing Industry. [Online] Available from: <https://writerfulbooks.com/ai-authors-book-editors-publishers/> (Accessed 23 April 2024)