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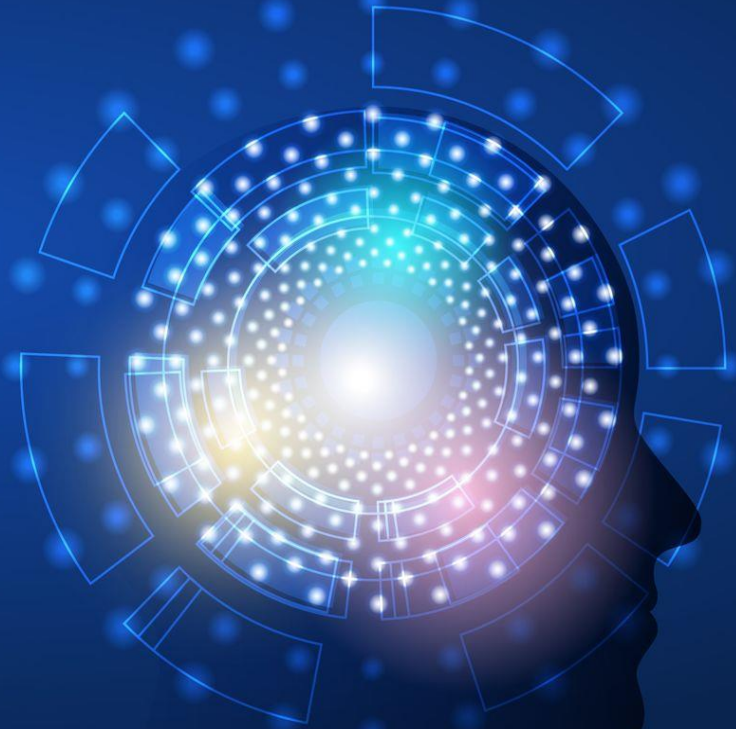
EMPOWERING LITERARY MINDS:
THE AI EDUCATIONAL REVOLUTION

2024



Democratic Arab Center for Strategic
Political and. Economic Studies

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**Democratic Arab Center
For Strategic, Political & Economic Studies
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International Conference

**Empowering Literary Minds:
The AI Educational Revolution**

Organized by

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University of Benghazi – Libya

Demokratisches Deutsches Zentrum für MENA - Studien, Berlin - Deutschland

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The Scope of the Conference

In an era defined by rapid advancements in technology, the world of education is experiencing a profound transformation. At the forefront of this revolution is the dynamic synergy between Artificial Intelligence (AI) and the age-old pursuit of literature. As we navigate the 21st century, where the traditional boundaries between the realms of human creativity and machine intelligence continue to blur, we find ourselves standing at the cusp of a literary renaissance. This renaissance, powered by AI, is poised to breathe new life into the art of teaching and learning literature, and it promises to empower literary minds in ways previously unimagined.

Literature has long been celebrated as a gateway to exploring the human experience, delving into the depths of culture, emotion, and thought. Its study is a time-honoured tradition, but the methods and tools available for its exploration have evolved significantly. The emergence of AI as a driving force behind this evolution has ushered in a new era where the age-old classics and contemporary masterpieces find fresh relevance in the digital age. This article embarks on a journey to explore the multifaceted ways in which AI is revolutionizing the world of literature education, from personalized reading lists and immersive literary experiences to interactive

learning platforms and global literary communities. With AI as our guide, we'll delve into the transformative power of technology in empowering literary minds and shaping the future of education.

Main Objectives

The main objectives of this conference, titled “Empowering Literary Minds: The AI Educational Revolution,” are multi-faceted and ambitious. First and foremost, we aim to elucidate the profound impact of Artificial Intelligence on literature education. Through a comprehensive exploration of various AI-powered tools and methodologies, our objective is to showcase how technology is enhancing the teaching and learning of literature. We endeavour to provide conference attendees with a deeper understanding of AI's role in creating personalized, engaging, and inclusive literary education experiences, thereby increasing student engagement and fostering a love for literature.

Additionally, this conference seeks to highlight the practical applications of AI in literature instruction. We aim to offer educators, institutions, and educational policymakers insights into the potential benefits of integrating AI technologies in the classroom. Our objective is to promote the adoption of AI-driven tools and platforms for literature education, emphasizing their capacity to improve accessibility, streamline assessment, and encourage diverse perspectives.

Furthermore, we intend to encourage a broader conversation about the ethical considerations associated with the use of AI in education, particularly in the context of literature. It is essential to address concerns related to privacy, bias, and the preservation of the human touch in teaching. Ultimately, this conference strives to inspire thought leaders, educators, and literary enthusiasts to embrace the AI educational revolution as a means of revitalizing the study and appreciation of literature in our ever-evolving digital landscape.

The Main Argument

The main argument of this conference, “Empowering Literary Minds: The AI Educational Revolution,” is that the integration of Artificial Intelligence (AI) into literature education has the potential to revolutionize the teaching

and learning of literature. We contend that AI technologies, when applied thoughtfully and ethically, can significantly enhance the literature education experience by personalizing learning, offering efficient text analysis, creating immersive and interactive literary environments, and fostering global literary communities. The transformative power of AI can empower students to engage more deeply with literary works and educators to provide more effective and inclusive instruction.

Research Questions

- 1- How can AI be effectively harnessed to personalize literature education and cater to the diverse needs and interests of students?
- 2- What AI-driven tools and methodologies are most promising for enhancing the understanding and analysis of complex literary texts?
- 3- In what ways can AI-powered games and interactive platforms create immersive literary experiences that captivate and engage students?
- 4- How can AI-driven virtual companions and chatbots stimulate literary discussions and encourage deeper literary analysis among students?

Topics of the Conference

Here is a selection of topics that you can delve into for research or discussion. Nevertheless, feel free to explore other related themes as well.

1. The Impact of AI on Language Proficiency
2. Personalized Learning with AI
3. AI in Literature Research and Trends
4. AI-Generated Creative Writing and Storytelling
5. AI and Language Learning in Literature Education
6. Challenges and Limitations of AI in Language Education
7. AI Integration in Teaching Materials
8. AI-Enhanced Student-Teacher Collaboration
9. AI-Language Assessment and Feedback
10. AI-Generated Literature and Creativity
11. The Future of AI in Literature Education

Conference Recommendations

As we bring this conference to a close, I would like to share a set of reflections and recommendations that encapsulate the essence of our discussions:

1. **Embrace Innovation:** Our foray into the uncharted territory of the AI educational revolution beckons us to embrace innovation with an open mind. Recognizing that the integration of AI in literature holds the promise of unlocking novel ways to engage and inspire learners, let us be pioneers in this transformative journey.

2. **Foster Collaboration:** The interdisciplinary nature of AI and literature necessitates collaborative efforts. Let us continue to build bridges between educators, technologists, and literary scholars. By fostering collaboration, we can create synergies that propel us forward into a future where the fusion of artificial intelligence and literature enriches the educational landscape.

3. **Prioritize Ethical Considerations:** As AI becomes an integral part of education, it is imperative to prioritize ethical considerations. Let us be vigilant in ensuring that the development and deployment of AI technologies align with principles of fairness, transparency, and equity. By doing so, we can shape a future where technology serves the greater good.

4. **Cultivate Lifelong Learning:** The AI educational revolution invites us to cultivate a culture of lifelong learning. Let us inspire both our students and ourselves to adapt, evolve, and continuously acquire new skills in this ever-changing landscape. By embracing lifelong learning, we empower ourselves to thrive in the dynamic intersection of AI and literature.

5. **Celebrate Diversity:** Literature is a mirror reflecting the diverse human experience. In the AI educational revolution, let us actively celebrate and amplify diverse voices. Our commitment to inclusivity ensures that technological advancements contribute to breaking down barriers rather than inadvertently perpetuating biases. Together, let us champion a future where the fusion of AI and literature fosters a truly inclusive educational environment.





Building Tomorrow's Curriculum: AI-Powered Teaching Materials for 21st-Century Skills

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Introduction

This chapter examines the different aspects of AI-powered instructional materials as we inquire about the revolutionary field of artificial intelligence (AI) in education. The use of AI is transforming education, from promoting fundamental 21st-century abilities to changing traditional learning environments. We look at real-world examples to show how AI literacy becomes essential to educating children and building a future generation of knowledgeable AI users. We explore cutting-edge applications and emphasise their influence on education, such as AI-powered tutors and virtual reality classes. The presentation of strategies for integrating project-based learning initiatives, real-world hands-on activities, and 21st-century skills highlights their applicability in a quickly changing educational environment. Moreover, ethical considerations in AI education and the need for continuous research and evaluation are discussed to ensure an inclusive and effective implementation of AI-powered teaching materials.

1. The 21st-Century Learning Skills

The only skill that will be important in the 21st century is the skill of learning new skills. Everything else will become obsolete over time. Peter Drucker (2012). “Management”, p.57, Routledge

21st-century skills refer to the abilities and competencies that are essential for success in the modern world, including critical thinking, creativity, communication, collaboration, digital literacy, and problem-solving.

The importance of 21st-century skills in education cannot be emphasised enough, especially in the rapidly changing and dynamic environment we live in today. These essential abilities go beyond basic literacy to include an individual's capacity for learning, letting go of outdated



knowledge, and mastering new skills or perspectives. This approach is highlighted by Alvin Toffler's "Future Shock" (1970), which propels people to view life as a continuous process where being adaptable and continually seeking knowledge are fundamental components. In our ever-changing world today, Toffler's assertion on the significance of unlearning old ways while learning new ones remains relevant indeed.

Additionally, and in a world marked by ideals like multilingualism, multiculturalism, diversity, inclusion, equality and equity as fundamental pillars of society's progressiveness - the ways in which we learn, teach, mentor and work must reflect principles that aid learners' integration into daily life. That is, instruction in learning environments should align with these principles so they can take root within people's actual and future lives. This is why the focus on 21st-century skills emphasises knowledge that prepares learners to become successful citizens capable of adapting to unforeseen changes both in their personal and professional life (Buckle n.d.).

According to Buckle (N.D.), "21st-century skills" refer to a set of knowledge, habits, career competencies, life abilities, and attributes that are essential for success in modern society. These proficiencies have an important role as individuals shift towards academic pursuits, start their careers, and manage adult responsibilities.

In 2022, Stauffer outlined 12 crucial proficiencies that students must possess to flourish in the workforce of the Information Age. These skills include critical thinking, creativity, collaboration, communication, information literacy, media literacy, technology literacy, flexibility, leadership, initiative, productivity, and social skills. Nurturing these competencies enables one to confront and capitalize on contemporary opportunities and challenges while guaranteeing their success both academically and professionally & generally into adulthood.

Kereluik et al. (2013) distilled these skills into 15 categories, which are summarised in Figure 1. However, our attention will be directed towards the next section, where we will briefly discuss the five timeless skills known as the "5 C's."

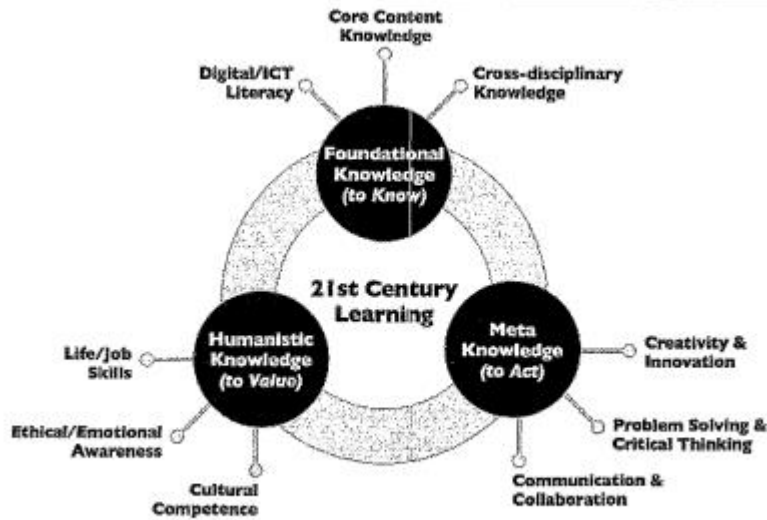


Figure 1. Synthesis of 15 different 21st century learning frameworks into one visual image.

Source: Kereluik et al. (2013)

The framework links 21st-century learning to three types of knowledge: fundamental (knowing), meta (acting), and humanistic (valuing). This chapter explores the second type, meta-knowledge, which we believe should be emphasized in schools. There are various educational approaches for developing 21st-century skills; some rely on traditional teaching methods, while others integrate skill development into curricula or offer extracurricular activities like independent projects or workplace experiences. The effectiveness of these approaches has been demonstrated through examples from both UK and international contexts in Voogt and Roblin's study in 2010. In this section, we briefly describe the five C's skills to highlight how important it is to focus on meta-knowledge as a way forward towards action-oriented stakeholders.

2. The 5 C's of Timeless Skills

Personalised learning has gained significant attention in educational discourse, as it offers students the opportunity to take a more independent and innovative approach to their learning. Hence, no one denies the importance of key skills labelled the the 5 C's of Timeless Skills. Such skills as Creativity, Critical thinking, Collaboration and leadership, Cooperation,

and Communication are becoming at the heart of any learning context. Modi (2021) relates the skills to personalised learning that empowers students to think critically and form their own conclusions, take ownership of their learning, and collaborate with others both inside and outside the classroom. She also underscores the significance of communication skills, particularly in the context of social media, and how these skills are essential for students to succeed in the modern world. Such skills are integral to preparing students for success in the 21st-century. They need to be integrated into everyday learning experiences to ensure that students are equipped to succeed in their future careers and in all aspects of their lives. As such, personalized learning serves as a platform for cultivating these essential skills, which are crucial for navigating the challenges of the modern world reigned by AI. The chapter comes to build a strong link between the 5C's and AI in education via curricula and designing appropriate instructional materials to serve such needs. In fact, technology can enhance and extend student learning in several ways and it can make complex processes clearer through the use of visuals and multiple examples found in online simulations or animations, images or photos from websites or CDs, or graphics or data tables (Idri, 2013). However, teachers must know that there is no specific technological solution that can function equally well for every class, course or pedagogical approach (Saihi, 2020). Simply, because learners prefer to present their classroom's works via technologies that combine features extracted from different modalities (text, audio, image, etc.) (Bouguebs & Idri, 2022). That is why, the boom of AI can be a helping hand to adapt teaching to the learners' needs.

This makes the integration of AI into educational curricula is a transformative endeavour that holds the potential to revolutionise the learning process and equip students with essential 21st-century skills. The significance of 21st-century skills, such as critical thinking, creativity, collaboration, communication, and digital literacy, cannot be overstated in the rapidly evolving modern world. These skills are crucial for preparing students to prosper in the workforce and cope with the challenges of the AI-dominated future (Chen et al., 2020).

To finish, there are several digital tools that can be used to personalise learning and promote creativity, including:



- **Multimedia tools:** Multimedia tools such as video, audio, and images can be used to enhance lessons, assignments, and projects, or to let students explore their interests and passions
- **Online platforms:** Online platforms such as e-portfolios, blogs, and wikis can be used to collect and organize students' artifacts, evaluate their performance, or reward their accomplishments
- **Coding tools:** Coding tools such as Scratch, Code.org, and Tynker can be used to teach students coding skills, which can foster creativity and problem-solving
- **Virtual and augmented reality:** Virtual and augmented reality tools can be used to create immersive learning experiences that engage students and promote creativity
- **Personalized learning platforms:** Personalized learning platforms such as DreamBox, Knewton, and Smart Sparrow can be used to create customized learning experiences that adapt to individual students' needs, interests, and abilities
- **Gamification tools:** Gamification tools such as Kahoot, Quizlet, and Classcraft can be used to make learning more enjoyable and engaging, while also promoting creativity and critical thinking

Automated AI tools can help students, teachers and administrators to develop these needed 5 C's skills. This can be achieved through raising awareness and implementing them in the curricula and the materials used in the classroom and in out-of-class learning as well.

3. Artificial Intelligence Integration into the Curriculum and Teaching Materials

The incorporation of AI literacy into the curriculum is essential to ensure that students are well-prepared to be informed users and creators of AI technology . AI-powered teaching materials have the potential to foster these skills and make education more inclusive and accessible to students, including those with disabilities (Teng et al., 2022). The future potential of AI in education is substantial, with innovative applications such as virtual reality classrooms, AI-powered tutors, and automated assessments. As one might notice, virtual reality classrooms marked a great attention of educational institutions during in the post-COVID 19 pandemic, and this revolution reached its peak with AI tools in this field. Such classrooms can be

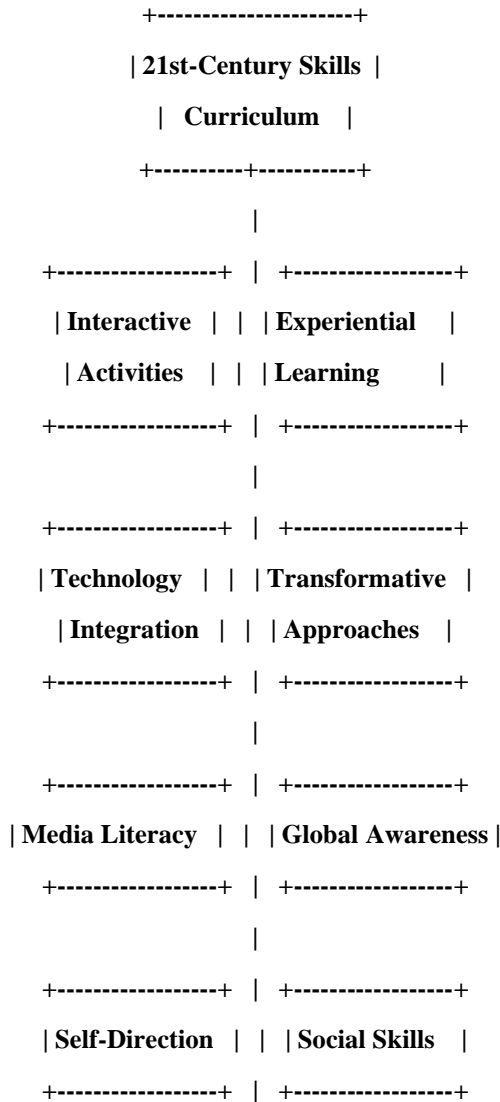
used in diverse subjects and with different age-ranges. To illustrate, teachers can use AI tools to simulate historical events or phenomena in different fields like science, physics; chemistry, etc. providing immersive learning experiences. Additionally, AI-powered tutors can offer personalised assistance, adapting to each student's learning pace.

To effectively integrate 21st-century skills into the curriculum, strategies such as interactive activities, experiential learning, technology integration, and project-based learning can be employed. Project-based learning activities can be used to teach 21st-century skills, fostering critical thinking, collaboration, and creativity among students (Bell, 2010; Kokotsaki et al., 2016). According to Nazaretsky et al., (2022), project-based learning activities can make learning more engaging and relevant. For example, a STEM (Science, Technology, Engineering, and Mathematics) project where students design and build a working prototype can integrate various skills. Similarly, a social sciences project that requires students to analyse and present data on a societal issue can enhance research, communication, and critical thinking skills. These practical approaches not only develop skills but also make learning more engaging and relevant (Herfina, 2022).

As for evaluation and assessment, it is crystal clear that AI tools provide a smooth progress in learning and can also be helpful for teachers in such platforms in their assessment. That is, adopting automated assessments, like those used in online platforms, can provide instant feedback, enabling students to track their progress efficiently (Pedro et al., 2019; Vincent-Lancrin & Van der Vlies, 2020). Hence, educators can reduce their workload and provide more efficient and personalised assessment and feedback to students (Qian & Clark, 2016). For instance, AI-powered grading systems can automate the evaluation of multiple-choice questions, allowing teachers to focus on more complex aspects of student performance (Tetteh et al., 2023). This not only streamlines the grading process but also provides educators with bright visions into areas where learners may need additional support.

4. Using AI Tools to Design Instructional Materials for 21st Century Skills

Incorporating 21st-century skills into the curriculum is essential for preparing students for success in the modern world. Schools can consider various strategies to achieve this. These strategies aim to foster critical thinking, communication, collaboration, and adaptability skills among students, which are crucial for their future endeavours. We can summarise such strategies in figure 2.



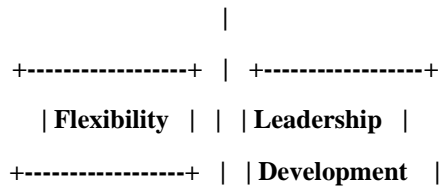


Figure 2: 21st-century skills curriculum

Interactive activities play a crucial role in fostering 21st-century skills. Here are a few examples:

1. Simplification exercises: These help students articulate complex ideas in accessible ways, nurturing critical thinking and communication skills.

2. Role-play scenarios: They create diverse environments for student interaction, enhancing communication, collaboration, and critical thinking capacities.

3. Public-speaking contests: Participation refines communication and critical thinking abilities.

4. Collaborative problem-solving activities: These platforms develop collaboration, critical thinking, and creative prowess among students.

5. Hands-on learning experiences, interactive presentations, gamification strategies, and group discussions are also effective methods for imparting 21st-century skills.

In a nutshell, the incorporation of AI-powered educational resources with the cultivation of 21st-century skills emerges as a fundamental determinant in shaping the trajectory of modern education. This strategic fusion not only equips students to pilot an AI-dominated landscape but also ensures equitable access to high-quality education. Employing innovative tools such as virtual reality classrooms and AI-driven tutors serves to augment the relevance and engagement within educational settings. Furthermore, the incorporation of interactive activities and immersive projects contributes significantly to the development of critical thinking, creativity, and collaboration among students. As we progress along this transformative path, we are laying the groundwork for students to excel both academically and professionally.

It can be urgent to integrate AI tools at all levels of education and prepare future generation to take action and make change. AI tools can be chosen, used and adapted according to the age range, the context, the country and the objective.

For instance, in higher education institutions, teachers can help learners to efficiently use technology for bibliographic research (Idri, 2015), or adapt their use for being effective, efficient researchers (Idri, 2023).

References

- Bell, S. (2010). *Project-based learning for the 21st century: skills for the future. The Clearing House a Journal of Educational Strategies Issues and Ideas*, 83(2), 39-43. <https://doi.org/10.1080/00098650903505415>.
- Buckle J. (n.d.), *A Comprehensive Guide to 21st Century Skills. COLLEGE AND CAREER READINESS. Panorama Education.* <https://www.panoramaed.com/blog/comprehensive-guide-21st-century-skills>
- Chen Y, D., Zhang, W., Chen, S., Yuan, B., Liu, B., ... & Liu, W. (2020). *Towards playing full moba games with deep reinforcement learning. Advances in Neural Information Processing Systems*, 33, 621-632.
- Drucker, P. (2012). *The practice of management.* Routledge.
- Idri, N. & Bouguebs, R. (2022). *Seeking an Appropriate Implementation of Multimodal Based-Instruction Approach into Post-pandemic EFL Classroom. Global Neighbors. TESOL Interest Section.* <http://newsmanager.commpartners.com/tesoleflis/issues/2022-03-03/2.html>
- Idri, N. (2013). *Using Multimedia Labs in Enhancing EFL Students' Research Methods Skills. Multilinguales. Vol. 1.*
- Idri, N. (2015). *Zotero Software: A Means of Bibliographic Research and Data Organisation; Teaching Bibliographic Research. Arab World English Journal (AWEJ). Special Issue on CALL, N 2.*
- Idri, N. (Oct. 2023). *I'timād al-dhakā' alāṣṭnā'y fī al-'ālam al-'Arabī: Riḥlat ḥatmīyat Naḥwa al-mustaqbal al-baḥthī. al-'adad 10, 20-27* <https://arabicrenewal.org/portfolio/%d9%85%d8%ac%d9%84%d8%a9-%d8%a7%d9%84%d8%aa%d8%ac%d8%af%d9%8a%d8%af-%d8%a7%d9%84%d8%ab%d9%82%d8%a7%d9%81%d9%8a%d8%a9-%d8%a7%d9%84%d8%b9%d8%af%d8%af-10-%d9%86%d9%88%d9%81%d9%85%d8%a8%d8%b1-2023/>

- Kereluik, K., Mishra, P., Fahnoe, C., & Terry, L. (2013). *What knowledge is of most worth: Teacher knowledge for 21st century learning*. *Journal of digital learning in teacher education*, 29(4), 127-140.
- Kokotsaki, D., Menzies, V., & Wiggins, A. (2016). *Project-based learning: a review of the literature*. *Improving Schools*, 19(3), 267-277. <https://doi.org/10.1177/1365480216659733>
- Modi, P. (12 June 2023). *The Importance Of 21st Century Skills In Today's World*. *Education Next*. Accessed 21-02-2024. <https://www.educationnext.in/posts/the-importance-of-21st-century-skills-in-todays-world>
- Nazaretsky, T., Ariely, M., Cukurova, M., & Alexandron, G. (2022). *Teachers' trust in AI-powered educational technology and a professional development program to improve it*. *British journal of educational technology*, 53(4), 914-931.
- Pedro, F., Subosa, M., Rivas, A., & Valverde, P. (2019). *Artificial intelligence in education: Challenges and opportunities for sustainable development*.
- Qian, M. and Clark, K. (2016). *Game-based learning and 21st century skills: a review of recent research*. *Computers in Human Behavior*, 63, 50-58. <https://doi.org/10.1016/j.chb.2016.05.023>
- Saihi, H. (2020). *Teachers' Attitudes towards Integrating Technology in English Language Classrooms of Biskra University through Moodle Platform*. *Journal of Studies in Language, Culture and Society*, 03 (1) special issue, 2020. (pp. 15-26). <https://www.asjp.cerist.dz/en/article/125429>
- Stauffer, B. (10 January 2022). *What Are 21st Century Skills?* <https://www.icevonline.com/blog/what-are-21st-century-skills>
- Tan, M. C. C., Chye, S. Y. L., & Teng, K. S. M. (2022). *"In the shoes of another": immersive technology for social and emotional learning*. *Education and Information Technologies*, 27(6), 8165-8188.
- Tetteh, D. J. K., Okai, B. P. K., & Beatrice, A. N. (2023). *VisioMark: An AI-powered multiple-choice sheet grading system*.
- Toffler, A. (1970). *Future Shock*. New York: Random House.
- Vincent-Lancrin & Van der Vlies, 2020
- Vincent-Lancrin, S., & Van der Vlies, R. (2020). *Trustworthy artificial intelligence (AI) in education: Promises and challenges*.

- Voogt, J., & Roblin, N. P. (2010). *21st century skills. Discussienota. Zoetermeer: The Netherlands: Kennisnet, 23(03), 2000.*



Revitalizing Cultural Treasures: Exploring the Role of AI Algorithms in Rediscovering and Promoting Forgotten Literary Works for Preservation and Diversity.

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Abstract

The literary world, a rich tapestry woven with diverse narratives, genres, and cultures, grapples with the challenges of overlooked and forgotten works. This article explores the complex obstacles, including limited accessibility, cultural biases, and evolving reader preferences, that contribute to the neglect of valuable literary treasures. In response to these challenges, the integration of Artificial Intelligence (AI) emerges as a transformative solution, reshaping the literary landscape. AI algorithms, with their analytical competence, pattern recognition, and personalized recommendations, offer a fresh approach to rediscovering hidden works of Literature. Beyond mere rediscovery, the application of AI extends to democratizing literature, preserving culture, and fostering inclusivity in the literary canon. Traditional methods, while valuable, have limitations, prompting the exploration of innovative AI-driven approaches. However, ethical considerations are vital, addressing biases in AI algorithms and ensuring inclusivity in cultural representation. The future prospects of AI in literary rediscovery hold promise, with advancements in technology anticipating more nuanced processes. Challenges, such as technological limitations and cultural complexities, call for continuous interdisciplinary efforts.

Keywords: Literature, Forgotten, Artificial Intelligence, Rediscovery, Technology.



I. Introduction

The literary world is a vast and diverse tapestry merged with the threads of countless narratives, genres, and cultures. From canonical classics to obscure gems, the sheer expanse of the literary landscape is often overwhelming. Understanding the vastness of the literary world is crucial for contextualizing the challenges associated with overlooked or forgotten works and underscores the importance of comprehensive approaches for their preservation and promotion. Despite the richness of the literary tapestry, many valuable works often hide in obscurity, facing the risk of being lost to time. The challenges associated with the preservation and promotion of lesser-known literary works include limited accessibility, cultural biases, and changing reader preferences contribute to the neglect of certain works, underscoring the urgency of innovative strategies to address these challenges. By examining the intricacies of these obstacles, this article aims to lay the groundwork for understanding why certain works are marginalized and the potential consequences of their continued obscurity.

In an era defined by technological advancements, the integration of Artificial Intelligence (AI) emerges as a potent solution to the challenges faced in the preservation and promotion of forgotten literary works. This section will underscore the transformative potential of AI in reshaping the literary landscape. AI algorithms, with their capacity for data analysis, pattern recognition, and personalized recommendations, offer a fresh approach to uncovering hidden literary gems and connecting them with diverse audiences. The significance of applying AI extends beyond mere rediscovery; it encompasses the democratization of literature, cultural preservation, and the fostering of a more inclusive literary canon. This article will explore how AI serves as a catalyst for change, breathing new life into overlooked works and enriching the literary heritage of societies worldwide.

II. Overview of Forgotten Literature:

The historical panorama of forgotten literature unfolds as a narrative of neglect and oversight, where certain works, despite their cultural and artistic significance, have gradually slipped into obscurity. By scrutinizing historical patterns, we aim to uncover the roots of literary neglect and establish a

foundation for understanding the complexities surrounding the preservation and rediscovery of these invaluable cultural artifacts. Digging into the causes behind the neglect and obscurity of certain literary works reveals a multifaceted interplay of factors. Economic considerations, shifting literary tastes, and the dominance of particular cultural narratives have all played pivotal roles in consigning numerous works to the shadows of oblivion (Enns & Metz, 2022, p. 66). Understanding these root causes is crucial for formulating effective strategies to address and mitigate the challenges associated with the oversight of culturally and historically significant literary contributions.

The neglect and obscurity of certain literary works exert a profound influence on the broader cultural tapestry, contributing to the decline of cultural diversity. As works from specific regions, genres, or marginalized voices fade into obscurity, the collective narrative becomes impoverished, hindering a holistic representation of human experiences. The existing efforts to rediscover forgotten literature, focusing initially on traditional methods. Libraries, literary societies, and academic research have historically served as bastions for rediscovery, yet the limitations and gaps of these traditional approaches are enormous. Recognizing the strengths and weaknesses of existing methodologies provides a foundation for understanding how innovative approaches, such as those involving AI, can complement and enhance current efforts (Davidson, 2010, p. 152).

Libraries, literary societies, and academic research have historically played pivotal roles in the rediscovery of forgotten literature. These traditional methods involve meticulous archival work, scholarly investigations, and curated exhibitions. While these approaches have yielded valuable results, they also exhibit inherent limitations such as resource constraints, geographical restrictions, and a potential bias towards well-established literary traditions. A critical examination of these traditional methods is paramount in identifying areas where technological interventions, particularly those involving AI, can introduce novel solutions and augment the efficacy of rediscovery initiatives (p. 230).

The introduction of AI presents a prototype shift in literary analysis, extending its applications beyond conventional methodologies, in the way it

demonstrated efficacy in diverse domains, and is increasingly relevant to literature and cultural preservation. By applying advanced algorithms, natural language processing, and machine learning, AI offers unparalleled capabilities in uncovering patterns, identifying themes, and making connections within vast repositories of literary data. The relevance of AI in the context of literature is examined, emphasizing its potential to revolutionize the rediscovery process and contribute to the preservation of cultural and historical literary content (O'Sullivan, 2023, p. 302).

III. The Role of AI in Rediscovering Forgotten Literature

Text mining and analysis involve the systematic examination of large volumes of textual data to uncover patterns and themes within the content. The process includes identifying recurring words, phrases, or topics to extract meaningful insights from diverse sources such as articles, social media, or academic papers. By employing advanced algorithms, text mining enables the extraction of valuable information, helping researchers, businesses, or analysts gain a deeper understanding of trends, sentiments, and relevant information from vast textual datasets (Elliott, 2018, p. 43). This method is crucial for making informed decisions and staying abreast of evolving narratives in various fields.

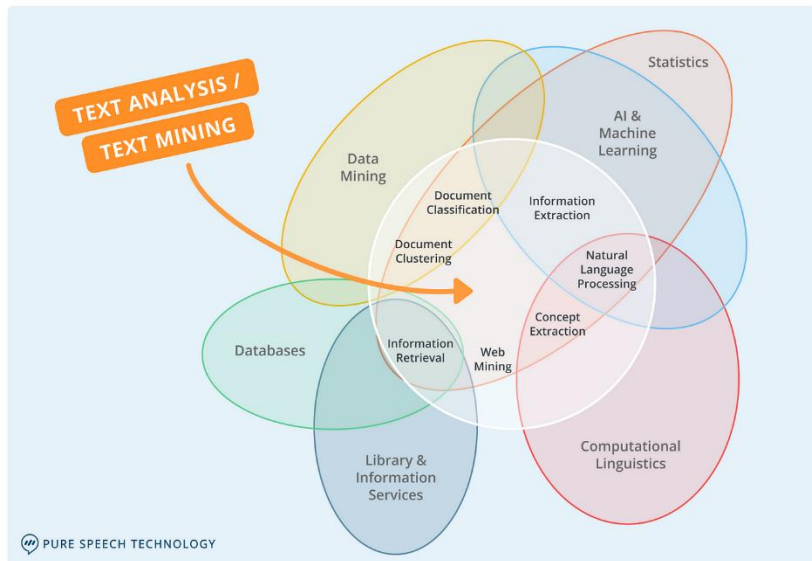


Figure (1): Text Mining) with six related fields: statistics, AI and machine learning, computational linguistics, library and information services, databases and data mining. Source: Practical Text Mining and Statistical Analysis for Non-Structured Text Data Applications by G.Miner et al. Image by Author.

Recommender systems play a pivotal role in enhancing user experiences by offering personalized recommendations. In the realm of literature, these systems excel in tailoring book suggestions to individual preferences. By analyzing a user's reading history, preferences, and behaviors, recommender systems can offer personalized literary recommendations, introducing readers to works that align with their tastes (Potter, 2023, p. 217). Furthermore, these systems contribute to the discovery of lesser-known works, fostering a more diverse reading experience and connecting readers with hidden gems that may otherwise go unnoticed.

Notable, Natural Language Processing (NLP) is a field of artificial intelligence that focuses on the interaction between computers and human language. Interestingly, NLP plays a crucial role in facilitating the exploration of cultural and historical content. By understanding and interpreting human language, NLP algorithms can categorize, summarize, and organize vast amounts of textual information related to cultural and historical topics. Additionally, NLP enhances accessibility for diverse audiences by enabling the development of applications and tools that can automatically generate easy-to-understand content, breaking down language barriers and making information more inclusive and readily available to a wider audience (Parisi, 2019, p. 109).

IV. Case Studies

▪ Google Books Ngram Viewer:

One notable application of AI in rediscovering forgotten literature is the Google Books Ngram Viewer. This tool utilizes natural language processing and machine learning to analyze the frequency of words and phrases in a vast collection of books over time. By identifying patterns and trends, the Ngram Viewer helps unearth overlooked or forgotten literary works. This project has been instrumental in providing scholars and

researchers with a valuable resource for tracking the cultural evolution of language and literature, shedding light on hidden gems that may have otherwise been lost to time (Garcia-Ventura & Verderame, 2020, p. 120).

▪ **Project MUSE's Text Mining for Cultural Heritage:**

Project MUSE, a digital humanities initiative, has employed text-mining techniques to sift through extensive archives of literary and cultural texts. By extracting insights from diverse sources, this project has successfully rediscovered forgotten literature, bringing attention to works that have been marginalized or overlooked. The impact extends beyond mere rediscovery, contributing significantly to cultural preservation and diversity. By highlighting lesser-known authors and narratives, Project MUSE plays a vital role in broadening our understanding of historical and cultural contexts, enriching the literary landscape, and promoting a more inclusive representation of diverse voices (McGann, 2011, p. 190).

These initiatives showcase how AI, through text mining and analysis, is not only detecting forgotten literature but also making a meaningful impact on cultural preservation and diversity by bringing attention to works that have been historically neglected or marginalized. These applications demonstrate the potential of AI in revitalizing literary heritage and ensuring a more comprehensive and representative understanding of cultural narratives.

V. Ethical Considerations

AI algorithms, while powerful tools for rediscovering forgotten literary works, must confront the challenge of inherent biases. Addressing potential challenges in cultural representation is crucial to ensuring a fair and inclusive rediscovery process. As AI algorithms rely on historical data, they may perpetuate existing biases present in literary canons and archives, leading to the underrepresentation of certain cultures or marginalized voices. To counter this, efforts must be made to train algorithms on diverse datasets that encompass a broad spectrum of literary traditions. Additionally, algorithm designers and curators should implement measures to mitigate bias, promoting inclusivity and fairness in rediscovery efforts (Abdedaim & Abdedaim, 2023, p. 9). By actively addressing these concerns, AI algorithms can contribute to a more equitable and comprehensive representation of

cultural treasures, allowing for the preservation and promotion of forgotten literary works that reflect the rich diversity of human expression.

Addressing potential challenges in cultural representation is a critical aspect of deploying AI algorithms in the rediscovery of forgotten literary works. One major challenge involves the historical biases ingrained in the datasets used to train these algorithms. If the training data primarily consists of works from certain cultural or linguistic backgrounds, the algorithms may inadvertently perpetuate these biases, leading to the underrepresentation of diverse voices. To overcome this, it is essential to curate inclusive and representative datasets that span a wide range of cultural, linguistic, and historical contexts. Additionally, constant monitoring and evaluation of the algorithms during the rediscovery process are crucial to identify and rectify any emerging biases, ensuring a more accurate and equitable representation of cultural treasures (Iphofen R. & O'Mathúna Dónal. (2022, p. 75).

Ensuring inclusivity and fairness in rediscovery efforts goes hand in hand with addressing biases. It involves implementing proactive measures in algorithmic design and deployment to prevent discrimination and ensure a balanced representation of different cultural contributions. This may include incorporating ethical guidelines, diversifying the development teams to reflect a variety of perspectives, and actively seeking input from diverse stakeholders in the curation process (Roumate, 2023, p. 105). By prioritizing inclusivity and fairness, AI algorithms can play a transformative role in uncovering forgotten literary works, promoting a more comprehensive understanding of cultural heritage, and fostering appreciation for the diverse narratives that constitute our global literary tapestry.

VI. Future Prospects

As we gaze into the future of AI technology in the realm of literary rediscovery, the potential for innovations and improvements is both promising and expansive. Advanced machine learning algorithms have shown remarkable capabilities in decoding and understanding intricate patterns within literary works, enabling the identification of hidden gems and forgotten masterpieces. Continued advancements in natural language processing, sentiment analysis, and contextual understanding hold the

promise of more accurate and nuanced rediscovery processes. As algorithms become increasingly sophisticated, we can anticipate a higher precision in recognizing cultural nuances, regional vernaculars, and historical contexts, thereby enriching the scope of rediscovered literary treasures. Moreover, the integration of multimodal AI, combining text analysis with image and audio recognition, could open new dimensions in the exploration of forgotten works, offering a universal approach to cultural preservation.

The future of literary rediscovery through AI algorithms envisions a landscape where the boundaries of time and cultural isolation are transcended. As AI continues to evolve, we can anticipate the development of personalized recommendation systems that not only discover forgotten works but also shape suggestions based on individual preferences and cultural affinities. Collaborative AI platforms could facilitate a global dialogue, connecting readers, scholars, and literary supporters in the shared effort of preserving and celebrating diverse cultural heritages. Furthermore, the integration of AI in educational curricula may foster a deeper appreciation for lesser-known literary works, contributing to a more comprehensive and inclusive literary canon. Enabling AI to serve as a curator of cultural treasures not only revitalizes forgotten literature but also paves the way for a more interconnected and culturally rich global literary landscape.

VII. Implications for Cultural Preservation

The use of AI to rediscover and promote forgotten literary works holds immense potential in strengthening cultural identity. By uncovering hidden treasures and lesser-known pieces of literature, AI contributes to a more comprehensive understanding of a community's heritage. This process aids in preserving unique cultural identities that may otherwise be overshadowed by mainstream narratives. Through the revitalization of these literary treasures, communities can reaffirm and celebrate their distinct cultural expressions, fostering a sense of pride and connection to their roots. In essence, the impact extends beyond preserving words on a page; it becomes a dynamic tool for communities to affirm and pass on their cultural narratives to future generations (Katz J. et al., 2021, p. 221).

The implications of using AI to rediscover forgotten literary works also extend to fostering appreciation for these pieces among a broader audience. Many valuable works may have been overlooked or marginalized due to historical biases, cultural shifts, or simply the passage of time. AI algorithms, by casting a wider net and reevaluating literary landscapes, provide an opportunity to bring these works back into the spotlight. As a result, readers and scholars alike gain access to a more diverse range of voices and perspectives. This not only enriches the cultural tapestry but also encourages a more inclusive appreciation of literature, challenging preconceived notions about what constitutes valuable literary heritage. In this way, AI becomes a powerful ally in ensuring that the full spectrum of human expression is recognized and cherished.

VIII. Challenges and Limitations

While the use of AI in rediscovering forgotten literary works holds great promise, it comes with its share of technological limitations. Current AI technologies, while advanced, may still grapple with accurately interpreting nuanced aspects of language, such as cultural metaphors, regional dialects, or historical context. The risk of misinterpretation or oversight poses a challenge in the thorough rediscovery of certain texts. Additionally, the dependence on digitized archives and available data may result in gaps, limiting the scope of AI-driven rediscovery (Churi et al., 2023, p. 97). Continuous advancements in technology are essential to overcome these challenges, requiring interdisciplinary efforts to refine algorithms and enhance the accuracy of literary analysis.

Cultural and linguistic diversity presents a significant challenge in the AI-driven rediscovery of literary treasures. The richness of human expression across different cultures and languages introduces complexities that algorithms may struggle to navigate. The subtleties of cultural nuance, context-specific meanings, and diverse literary traditions pose touches in developing universally effective algorithms. Ensuring that the AI understands the intricate interplay of cultural elements within texts is an ongoing challenge. Moreover, the potential bias in training data, often reflective of dominant cultural narratives, may inadvertently perpetuate inequalities in rediscovery efforts (p. 110). Addressing these complexities requires a

thoughtful and inclusive approach, with ongoing efforts to refine AI models in collaboration with diverse cultural and linguistic experts.

IX. Conclusion

After digging into the intricate interplay between artificial intelligence (AI) and the rediscovery of forgotten literary works, it is evident that the integration of technology offers a transformative path for cultural preservation and diversity in the literary landscape. The literary world, with its vast and diverse tapestry, has long grappled with the oversight and neglect of valuable works. The challenges associated with limited accessibility, cultural biases, and changing reader preferences have contributed to the obscurity of certain literary treasures, underscoring the urgency of innovative strategies. The utilization of AI, particularly in text mining, recommender systems, and natural language processing, emerges as an encouragement to find hidden treasures and revitalize forgotten literature. The case studies of Google Books Ngram Viewer and Project MUSE exemplify how AI can effectively bridge gaps, offering a more comprehensive understanding of cultural narratives. However, this journey is not without challenges. The technological limitations and cultural complexities that AI encounters, including the risk of misinterpretation and the potential biases in training data call for ongoing refinement of AI models through interdisciplinary efforts. Moreover, the challenges in navigating diverse cultural nuances highlight the need for inclusivity in algorithmic design and deployment.

In conclusion, the prospects are provoking. The advancements in AI technology hold promises of more accurate and nuanced rediscovery processes, envisioning a literary landscape where the boundaries of time and cultural isolation are transcended. The potential lies not just in rediscovery but in the democratization of literature, cultural preservation, and the fostering of a more inclusive literary canon. As scholars, technologists, and cultural institutions stand at the crossroads of this transformative journey, the key findings underscore the importance of collaborative action. It is a call to action for scholars to guide the ethical application of AI, for technologists to refine algorithms and mitigate biases, and for cultural institutions to embrace innovative approaches in tandem with traditional methods. By marrying the wisdom of humanities with the capabilities of technology, we can floor the

way for a future where no literary masterpiece is left forgotten, and where cultural diversity thrives within the pages of our shared literary heritage.

References

- *Abdedaim, Karima & Abdedaim, Imene. (2023). Ethical Integration of Artificial Intelligence in Scientific Research: Establishing Responsible and Transparent Frameworks for Advancements in Knowledge. National Conference on Using Artificial Intelligence in Scientific Research, Algiers.*
- *Davidson R. (2010). The library of forgotten books. PS Pub.*
- *ELLIOTT, S. W. (2018). Artificial Intelligence, Robots, and Work: Is This Time Different? Issues in Science and Technology, 35(1), 40–44. <https://www.jstor.org/stable/26594285>*
- *Enns A. & Metz B. (2022). Consumerism and prestige: the materiality of literature in the modern age. Anthem Press.*
- *GARCIA-VENTURA, A., & VERDERAME, L. (Eds.). (2020). Perspectives on the History of Ancient Near Eastern Studies. Penn State University Press. <https://doi.org/10.5325/j.ctv1hcg0d9>*
- *Iphofen R. & O'Mathúna Dónal. (2022). Ethical evidence and policymaking: interdisciplinary and international research. Policy Press 2022.*
- *Katz J. E. Floyd J. & Schiepers K. (2021). Perceiving the future through new communication technologies : robots ai and everyday life. Palgrave Macmillan.*
- *McGANN, J. (2011). On Creating a Usable Future. Profession, 182–195. <http://www.jstor.org/stable/41714118>*
- *O'Sullivan J. C. (2023). The Bloomsbury handbook to the digital humanities. Bloomsbury Academic.*
- *Parisi A. (2019). Hands-on artificial intelligence for cybersecurity : implement smart ai systems for preventing cyber attacks and detecting threats and network anomalies. Packt Publishing.*
- *Potter W. (2023). Ai. Gareth Stevens Publishing.*
- *Roumate F. (2023). Artificial intelligence in higher education and scientific research: future development. Springer*



**The Role of Grammarly AI assistant in Fostering EFL Students'
Academic Writing skill when writing the graduation thesis
Case of Master Students of English at Bejaia University**

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Abstract

Students in the Algerian higher education at the level of Master degree are required to go through dissertation writing process for the sake of graduation. As foreign language learners, students require immediate reviewers when writing because this gives them more confidence to meet with their supervisors and to persevere through the lengthy process of preparing their graduation dissertation. On the other hand, the recent technological development introduced the students to a variety of writing assistants, especially, intelligent ones. The artificial intelligence (AI) appearance opened more opportunities to the students to get free and easy feedback on their pieces of writing, and to learn more about the academic and professional writing. Among these AI assistants, Grammarly appears to be one of the mostly used techno-robots by the students. Therefore, this study is conducted for the sake of collecting the students' perceptions towards this assistant, and what benefits it offers them. To achieve this aim, the study follows the procedures of an exploratory study where a questionnaire is administered to 32 Master students who are enrolled in their second year of the Master program. The results shows that the students frequently use Grammarly as an assistant for their writing as it makes them more confident about their writing. However, its use should be limited and careful because of a number of misleading feedback it might provide.

Keywords: Artificial Intelligence, Grammarly, Master students, Writing skill, Graduation.



1. Introduction

Writing skill is one of the most important language skills for language learners and the most difficult skill as compared to other language skills for EFL learners. Moreover, the ability to be accurate in English is a challenge for most EFL learners as this requires being able to choose and select correct and appropriate words (lexis) and produce error-free language. Therefore the writing task is considered the most challenging for students in learning English as it needs much practice (Munawwaroh, 2017).

Nowadays, technology has become an important and a crucial aspect in our daily lives with its wide use in various sectors of our daily lives, particularly in the context of higher education, providing innovation in the teaching/learning process, and facilitating the teaching/learning experiences for both the teacher and the learner.

Interestingly, actual new technologies such as Artificial Intelligence (AI) is becoming increasingly common in many domains, letting people having its usage mainly in education to get advantage of its possible opportunities and overcome different educational challenges with the different AI means assistants.

Among the AI-powered assistants is Grammarly, which is an AI-powered writing assistant that helps learners in their writing process through the services and feedback it provides to its users such as, spelling correction, style suggestions, punctuations issues, sentence construction, etc.

According to Sabarun (2019), providing learners with corrective feedback in the L2 writing context is an important aspect in the learning process. That is, learners are able to recognize and know about their errors, thus correcting them.

Accordingly, the current study aims at exploring master students' perceptions towards the effect of Grammarly writing assistant on fostering EFL learners' academic theses writing.

2. Literature Review

2.1. Grammarly Application

2.1.1. Definition of Grammarly

According to Fitria (2021), Grammarly as an AI assistant is an easy-to-use online grammar tool allowing correction of pieces of writing in alignment with English conventions. That is, Grammarly is an assistive software which allows the users to think about their writing through the feedback provided.

Likewise, Javiar (2022) reported that Grammarly is An American-based digital which allows checking about different related writing aspects such as correctness, clarity, engagement, delivery, and plagiarism, which allows a consistent analysis of students' writings, thus, students will be able to produce a correct piece of writing.

Interestingly, the use of Grammarly has gained place in many educational sectors, particularly in EFL context due to the academic requirements to write authentic theses for graduation purposes.

Grammarly offers various benefits that help in assessing academic writing. The following are among Grammarly benefits (Nova, 2018):

- Useful feedback for learning gain: Users receive direct and indirect feedback, hence being able to reflect on their writing and avoid errors (spelling mistakes, punctuation mistakes, grammar, etc.)
- Ease of access in downloading and utilization: Grammarly is an AI writing assistant easy for access since users can create accounts to submit writing and access it through mobile phones. Moreover, it can be integrated to Google Chrome, Microsoft Office, Editors and Keyboards, thus, the ability to use it whenever and wherever wanted.
- High rate of evaluation speed: This tool offers immediate examination of the users' material. Therefore, users gain time in analyzing their writing.
- Free service: The free service offered by Grammarly becomes one of its strengths as many learners prefer the Grammarly free version as compared to the paid premium service.

2.1.2. Types of Grammarly Application

According to Nova (2018), there are two types of Grammarly that allow checking errors in writing. These are the following:

a. Free Version

The Grammarly free version is a free version which is helpful in the writing task as it provides essential writing aspects and allows users to check and correct their writing. The free version of Grammarly corrects 150 types of errors such as: grammar , spelling errors, online writing, etc.

b. Premium version

The Grammarly premium version is a paid version, which provides additional services and features as compared to the free version. It checks over 400 features such as: vocabulary suggestion, plagiarism detection, and citation suggestions, etc. Moreover, the premium version of Grammarly offers more options and considers users' preferences, hence, users can tailor the Grammarly assistant to meet their needs and objectives. Furthermore, Grammarly premium version can be uses with different platforms what renders it a flexible tool that can fit in different situations and contexts.

2.2. Academic Writing

2.2.1. Definition of Academic Writing

Academic writing is seen as the well organized and structured writing used in academic research publication, seminars, conferences, etc., written in academic style. Birhan (2021) defined writing as one of the important language skills in language teaching and learning, mainly for higher education learners.

Lasi (2019) stated that “writing skill is highly a complex task and writing in foreign language makes the task further complicated as it requires sufficient command over the foreign language to fulfill all the formalities; composing, developing logical ideas, which are essential for a written text to be comprehensible”. This was supported by Pratama (2020) who reported that the writing skill is one the hardest language skills as people need to provide a meaningful text to help readers get information. Therefore, this

makes of the writing skill a difficult task to perform and remains a challenge for most EFL learners in their process of learning English. It is worth mentioning that EFL learners are required to master academic writing and possess this skill so as to be able to write a thesis or dissertation, which are needed for their university graduation or post-graduation. However, in other non-formal writing styles (letters, friends' mails and texts, etc.), one does not need to write academically. Therefore, graduate students find it a challenge to write their theses and struggle to present acceptable and accurate pieces of writing what makes them resort to the various educational technology tools that would help them overcome the difficulties they face in their writing process.

2.2.2. The Use of Grammarly Application in Academic Writing

The use of Grammarly in academic writing has received much attention by researchers and has been examined adopting different methodologies.

Oktaviani et al (2021) examined students' attitudes towards the use of Grammarly in English writing skill and found that the students had positive attitudes towards Grammarly and its benefit in providing them with grammar features such as, punctuation, spelling, styles as well as the direct and indirect feedback.

Likewise, Fitria et al (2022) conducted a study about students' perceptions with regards to the use of Grammarly in their undergraduate thesis writing. The results of the study showed that students showed positive perceptions towards Grammarly due to the fact that it is time saving, and offers clear and easy feedback.

Similarly, Yurika et al' s (2023) study explored the use of Grammarly Premium among students, and revealed that students held positive and negative attitudes towards Grammarly Premium. Nevertheless, the study showed that the positives perceptions were the dominant ones.

Accordingly, in the present study, we aim at investigating students' perceptions towards the role of Grammarly as an AI writing assistant in fostering EFL learners' academic theses writing at the university of Bejaia, Algeria.

3. Research Questions

This study seeks to answer the following questions:

1. Does Grammarly help students enhance their writing quality when writing their graduation thesis?
2. How does Grammarly help students enhance their writing competence?

4. Aims of the study

The current study aims at exploring students' perceptions towards the use of Grammarly AI writing assistant in enhancing their theses academic writing. Moreover, we aim at finding out about the ways in which Grammarly helps in improving students' academic theses writing.

5. Research Methodology

5.1. Population and Sample of the Study

The population of the current study consists of EFL learners enrolled in the department of English at the University of Bejaia, during the academic year (2023/2024) at the Master two level. The questionnaire was administered to master two students. Thus, a random sample of 14 students responded the questionnaire. The sample consists of both males and females.

5.2. Method and Study Design

The present study seeks to explore students' perceptions towards the role of Grammarly in fostering their theses academic writing. Therefore, in our way to investigate the above mentioned issue, we relied on an exploratory design to collect data. Accordingly, to attain our aims, we adopted a quantitative methodology to analyze the obtained data. We suppose that a quantitative analysis of data would yield reliable and consistent results.

5.3. Research Tool

To achieve our aim, we used the questionnaire as a research instrument for the collection of data, seeking quantitative data. The objective behind

choosing the quantitative instrument in this investigation is to collect valid and reliable data in order to empower the authenticity of the findings.

6. Results & Discussion

6.1 Questionnaire's results and Discussion:

1. Reasons for using Grammarly when writing a Master thesis:

Writing a thesis for graduation calls for a high-quality, formal, and correct writing style. For EFL students whose first language is not English, writing is considered one of the most challenging skills. For this reason, students search for any kind of help that would make their written production with high quality.

Technological development made a great contribution to the development of foreign language education in non-native countries as it provides different tools (applications, platforms, websites, and communication with professionals) for the development of language skills. Further development in technologies, and more precisely, the appearance of artificial intelligence assistants made the educational processes easier and more interesting. For speaking, AI assistants like SmallTalk, Deep English, and Speak and Improve could help students check their speaking abilities and skills and practice with the assistant. For writing tools, Grammarly, Quillbot, and Wordtune are the most used tools. Yet, Grammarly for the students of English at the University of Bejaia seems to be the most used; and this conforms with what is said by Miranty & Widiati (2021) that Grammarly is the AI tool that receives most of the attention nowadays in developing writing skills in higher education settings (as cited in Ha Tien, 2023). We asked the students whether they use Grammarly when writing their thesis, and all the students responded yes (as shown in table 1):

Table 1

Whether the respondents Use of Grammarly when writing Master thesis

	Frequency	Percent
Yes	14	100
No	0	0
Total	14	100

The respondents justified their use of Grammarly differently, yet, all of them emphasized the importance and the role this AI writing assistant plays in making their writing style polished and refined by respecting the academic writing standards.

The informants further justified the use of Grammarly for having a second review of their piece of writing. Mainly, the students claimed that Grammarly checks their works at the level of Grammar, Punctuation, Spelling, and Vocabulary. Moreover, the informants claimed that Grammarly ensures the accuracy, clarity, and professionalism of their written texts. The students also justified their use of this tool by checking the plagiarism and because of the feedback it gives. Finally, they mentioned that it helps them give an idea about the accuracy of their pieces of writing because it provides a score/percentage of the writing performance, and this, according to them, gives them an idea of how good/bad their writing skill is. This score involves statistics of word count and the readability score which explain the rate at which the written texts could be comprehended by a specific category of readers. This, according to the students, makes the writing process more enjoyable and more informative. Similarly, Karyuatry et al., (2018) found that the free version of Grammarly is a useful tool for online proofreading; students can use it to reduce errors and enhance the quality of their writing (as cited in Santiago et al., 2023). Likewise, Huang et al. (2020) had the same conclusion as their study revealed a significant difference between pre and post-writing performance tests, which indicates that Grammarly is helpful in developing the writing quality of the students.

2. Whether Grammarly is helpful and how?

We asked the students whether Grammarly is helpful especially when writing their dissertations. As table 2 shows, all the respondents (100%) agreed that it is helpful.

Table 2

Whether the respondents find Grammarly helpful during the writing process

	Frequency	Percent
Yes	14	100
No	0	0
Total	14	100

In the follow-up question of how Grammarly helps them when writing; most of the respondents expressed their appreciation for the feedback and the suggestions this assistant is providing them with. The students claimed they could detect and understand more about the sentence structure, the grammatical and vocabulary mistakes, more about tenses and spelling, and the accurate punctuation that makes their pieces of writing clearer and more comprehensive. Additionally, the students mentioned that Grammarly was helpful in choosing the appropriate vocabulary and words specific to a given context in their pieces of writing, and this is, as claimed by the students, unexpected from a robot. Finally, the students added another function this writing assistant offered to them which is plagiarism checking. This service scans the written text and finds duplicate content that requires references (cited in <https://www.grammarly.com/plagiarism-checker>). Although this service is premium, Grammarly provides a trial period. This is actually the function that Grammarly provides to its users; as claimed by Fitria (2021) “Grammarly categorizes errors into six types, including “contextual spelling, grammar, punctuation, sentence structure, style, and vocabulary enhancement” (p.24, as cited in Ha Tien, 2023).

3. Strengths of Grammarly from the students’ experiences

Since the respondents had experience with Grammarly, we asked the students about the best services this assistant offers and the strength points it has. The students' answers are summarized in the following points:

- It can identify and correct grammatical errors, punctuation, and sentence structure.
- It can check the text for plagiarism.
- It suggests alternative words that suit the topic and this helps in enriching their vocabulary.
- It enhances the writing quality from all the language levels even semantically.
- It organizes the written texts as it omits redundant and repeated sentences.
- It provides suggestions that help the text to be more clear and comprehensive.
- It is a good proofreader and guide for the students; and it gives them more confidence.
- Its strongest feature is its ability to provide suggestions and accurately correct references, including those following the APA guidelines and other styles like MLA and Chicago.
- The feedback it provides is constructive, as the students can see clearly their mistakes and check more about them online.
- Most of its suggestions are accurate to the context, this is unexpected according to the students.

Many studies reported advantages of Grammarly (like Ha Tien, 2023; Schmidt & Strasser, 2022; Santiago et al., 2023; Huang et al., 2020; Nova, 2018); and mostly they conform to the benefits provided by our respondents. Mostly the benefits turn around the constructive feedback provided to correct errors and mistakes at the level of grammar, vocabulary, and sentence structure; in addition to plagiarism checking and reference building.

4. Shortcomings of Grammarly from the students' perspective

With all the benefits and advantages this writing assistant provides, students still find challenges and problems that impedes their use of Grammarly. The students mainly mentioned the following shortcomings:

- The students become increasingly passive and dependent on this writing assistant. They progressively lose their self-correction ability as they grow accustomed to automatic correction.

- It gives sometimes misleading feedback and limited explanations of the words. This means that Grammarly may have limitations in understanding context-specific hints, and its suggestions may not always align with the writer's intended style. This practically leads them to have more work to do when revising the suggestions and checking them because, with this limitation, they feel obliged to be cautious not to overly depend on Grammarly's suggestions and carefully examine them, taking into account the specific context of the writing.

- It does not replace the need for human proofreading in certain situations.

- Its premium services are more interesting and more informative, and the students cannot obtain them.

- Grammarly's Plagiarism checker is not accurate compared to other tools like Turnitin for example.

Additionally, as with any technological means and tool, users of Grammarly can face certain issues that can be summarized as follows: availability of connectivity to the internet which in case is not good may not offer access to use, misleading feedback, where students may feel to correctly interpret the feedback, hence leading to errors. Lack of knowledge in the use of Grammarly would lead to ineffective use of this AI writing assistant.

Our results are not very different from other researchers. Although in the literature, few studies have focused on the shortcomings of Grammarly, Grammarly is said to be like other technological tools that need more improvement. Javier (2022) addressed several limitations; most of the students make use of the free version of Grammarly, and unfortunately, it provides a limited number of functions (Grammar, spelling, and punctuation) whereas the premium can offer more functions (Everything in free, Clarity-focused sentence rewrites, Tone adjustments, Plagiarism detection, Word choice, Formality level, Fluency, Additional advanced suggestions). Besides, Javier (2022) reported different studies that addressed different problems of

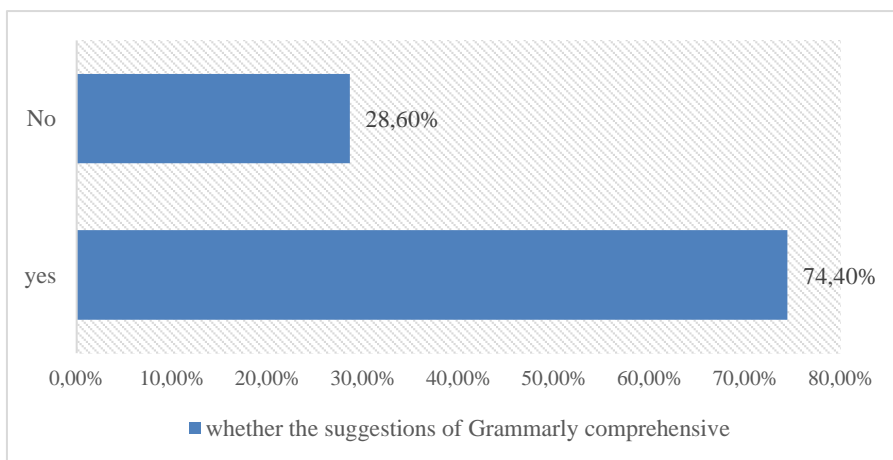
this assistant (like Ghufuron, 2019; Huang, 2020; Vo& Nguyen, 2021). These studies claim that Grammarly lacks the ability to improve the content and the organization of the written text, as Bailey and Lee (2020) claimed, it is unable to give recommendations to nonsensical texts because it focuses on the surface meaning). Additionally, it is unable to recognise some proper names (cited in Javier, 2022). Additionally, Nova (2018) also addressed the same limitations (misleading feedback and inability to recognise the context and the content of the words) (as cited in Ha Tien, 2023).

5. Grammarly's Suggestions from the students' Perspective

Since Grammarly provides feedback in the form of suggestions, the students might have difficulties in understanding or dealing with them. We asked the students whether the suggestions provided by the students were comprehensive and easy to understand, the majority of the students responded by yes (71.4%), while only 28.6% responded by No (see Figure 1).

Figure 1

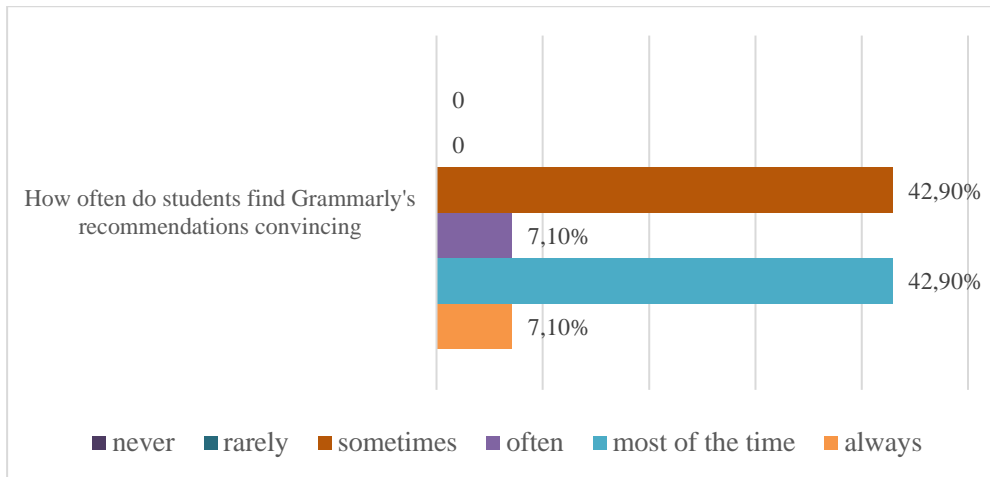
Students Opinions about whether the suggestions of Grammarly are easy to be understood



The next question was about how frequently they are convinced about the suggestions of Grammarly. The opinions of the students varied mostly between most of the time (42.9%) and sometimes (42.9%). Others claimed that are always convinced (7.1%), and finally, with the same percentage (7.1%), others claimed that they are often convinced by the suggestions.

Figure 2

How often do students find Grammarly recommendations convincing



The answers of the students show that they consider the suggestions most of the time. The students explained that these suggestions are helpful as they hold all that a student may need to improve their writing skills and the essential concepts of the language. Since Grammarly is based on AI algorithms, it evaluates the ideas and takes into consideration linguistic features and their own unique writing context to make suggestions. Therefore, students trust to some extent these recommendations. These results conform to the findings of Ha Tien (2023), who found that among 11 students, 7 agreed that they were satisfied with the suggestions of the feedback from Grammarly, and only 4 were neutral.

However, the students cannot completely trust these recommendations because Grammarly is unable to correctly read the context or comprehend the speaker's intention, as was already indicated in the prior questions. This is also mentioned in Ha Tien's (2023) findings, where five interviewed students expressed their concerns about the misleading feedback in Grammarly. Additionally, some of our respondents stated that the suggestions are sometimes unnecessary; for example, Grammarly suggests changing 'in order to' by "to" to shorten the length of the sentence; however, doing so will result in the repetition of "to". This conforms to the previous works' results discussed in the above axes.

6. Whether Grammarly elevates the students' writing quality

The main aim of creating Grammarly was to help users elevate the quality of their writing. So, we asked the students whether Grammarly really helps them do so. Table 3 demonstrates that 92.9% agree that it helps them improve their writing, whereas 7.1% do not feel that their writing is developed due to Grammarly. While asking for further details about the written language levels that are developed due to Grammarly, the student focused on: vocabulary, grammar, and syntax; more specifically, spelling and punctuation and respecting grammatical rules. In addition to this, the students repeatedly talked about how their language became more formal and more academic. Additionally, the students said that Grammarly helps them learn how to express coherent and clear ideas (semantic). Likewise, Fitria (2021) concluded that both versions of Grammarly (free and premium) are helpful in correcting written texts grammatically in alignment with English language conventions. Besides, a weak paraphrase can be detected by Grammarly by only changing a small portion of the source text (Fitria, 2021). Moreover, Ha Tien's (2023) findings revealed that among 11 interviewed students, 9 of them claimed that they developed their writing ability due to Grammarly and improved their confidence when writing.

7. Conclusion and Recommendations

The AI tools are developed with sophisticated algorithms that are open to further development. The assistants have the ability to learn and develop like human beings. This makes them a powerful tool that contributes and will contribute in many fields in the future, especially education. Grammarly, as one of the most used artificial intelligence assistants, focuses more on the writing skill. With the functions and the services it provides, Grammarly helps students refine their writing abilities at the levels of grammar, vocabulary, punctuation, and syntax or sentence structure. Although the students cannot use the premium version, they still can see premium suggestions; they can search to understand these errors online or ask teachers to explain them and apply the rules in their texts. Additionally, this writing assistant not only aids the students to refine their writing but also helps them foster their self-confidence and courage to submit their written production to human reviewers (supervisors or scientific committees). However, although

Grammarly has many advantages to both students and teachers, some limitations need more development improvement. Grammarly fails to read the context and make suggestions based on the intention of the writer. This leads the feedback to be more misleading, especially to the students with low levels. Therefore, the developing team should take into consideration these limitations and work on improving them like providing more than one possible recommendation to the error so that the students choose the one that fits the target meaning. This way, the students could avoid misleading feedback. Additionally, the supervisors (in the case of academic dissertation writing) should carefully revise the papers of the students because they might accept misleading feedback intentionally or unintentionally. Furthermore, the students should not be passive and rely on the corrections of Grammarly. They should work hard to understand the grammatical rules and learn from their mistakes.

References

- Birhan, A.T. (2021). *Effects of teaching lexical bundles on EFL students' abstract genre academic writing skills improvement: Corpus-based research design*. *International Journal of Language Education*, 5 (1), 585-597. <https://doi.org/10.26858/ijole.v5i1.14917>
- Fitria, T.N. (2021). *Grammarly as AI-powered English writing assistant: Students' alternative for English writing*. *Metathesis: Journal of English Language Literature and Teaching*, 5(1), 65-78. <https://10.31002/metathesis.v5i1.3519>
- Fitria, R. A., Sabarun, S., & Miftah, M.Z. (2022). *Students' perceptions of the use of Grammarly in undergraduate thesis writing*. *Professional Journal of English Education*, 5(2), 366-371. [10.22460/project.v5i2.p366-371](https://doi.org/10.22460/project.v5i2.p366-371)
- Ha Tien, T., A. (May, 2023). *Exploring the impact of Grammarly on grammatical accuracy in second language writing of fifth-grade students in Vietnam: A mixed-methods case study [Unpublished dissertation]*. University of Technology and Education, Ho Chi Minh, Vietnam. [10.13140/RG.2.2.26172.00648](https://doi.org/10.13140/RG.2.2.26172.00648)
- Huang, H.W., Li, Z. & Taylor, L. (May, 2020). *The effectiveness of using grammarly to improve students' writing skills*. *In the proceedings of 5th*

International Conference on Distance Education and Learning, 122-127.
: [10.1145/3402569.3402594](https://doi.org/10.1145/3402569.3402594)

- Javiar, D .R. (2022). APP review using tech tools for academic writing: Grammarly as a pedagogical tool. *Mextesol Journal*, 46(2), 1-3. <https://www.mextesol.net/journal/public/files/04ecfe7d4f6f6edd1e3baa327912ed9e.pdf>
- Lasi, F.(2019).Error analysis in academic writing: A case of EFL students in north central Timor. *UHAMKA International Conference on ELT and CALL (UICELL)*. 312-315.
- Munawwaroh, K. (2017). Using mind mapping to improve students' skill in descriptive writing at semester two of Batanghari university in academic year 2015/2016. *Jurnal Ilmiah DIKDAYA*. 26-33. [10.33087/dikdaya.v7i1.27](https://doi.org/10.33087/dikdaya.v7i1.27)
- Nova, M. (2018). Utilizing Grammarly in evaluating academic writing: A narrative research on EFL students' experience. *Premise: Journal of English Education and applied Linguistics* ,7(1),80-96. <file:///C:/Users/DELL/Downloads/1332-9481-1-PB-2.pdf>
- Oktaviani, S., Bharani, B., &Noor, W. N. (2021). Students' perceptions towards the use of Grammarly in English writing skill of fourth semester English education department at Uinsi Samarinda in the academic year 2011/2022. *Jurnal Sultan Idris Pendidikan profesi Guru*, 1-24. <file:///C:/Users/DELL/Downloads/5465-Article%20Text-17013-1-10-20221215-1.pdf>
- Pratama, Y.D. (2020). The investigation of using Grammarly as online grammar checker in the process of writing. *English Ideas: Journal of English Language Education*, 1(1), 46-54. <file:///C:/Users/DELL/Downloads/4180-Article%20Text-10168-1-10-20201027-3.pdf>
- Sabarun (2019). The influence of different types of feedbacks on learners' writing performance at higher education. *Proceedings of the 3rd INACELT (International Conference on English Language Teaching)*, 205-226. <https://core.ac.uk/download/pdf/326498642.pdf>
- Santiago, C. S. J., Embang, S., Acanto, R., Ambojia, K,W.P., Aperocho, M.D.B., Jr, B.B.,Cahapin, E.L., Conlu,M.T.N., Lausa, S.M., Laput, E,Y., Malabag, B., Paderes, J.J., & Romasanta, J. (2023). Utilization of Writing Assistance Tools in Research in Selected Higher Learning Institutions in the Philippines: A Text Mining Analysis. *International Journal of Learning*,

Teaching and Educational Research, 22(11), 259-284.
<https://doi.org/10.26803/ijlter.22.11.14>

▪ *Yurika, F., Munir., & Farahdiba, S. (2023). Students' perceptions toward the use of Grammarly as a grammar checker in the process of writing. Journal of Technology in Language Pedagogy (JTechLP)*, 2(2), 307-319.
<file:///C:/Users/DELL/Downloads/47357-118813-1-SM-1.pdf>



The Positive Role of AI Applications in Improving Educational Processes (Distance Education Model)

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Abstract

This study addresses a problem centered around to what extent have AI applications contributed to the development of the education process and in particular distance learning techniques. In response to the problem raised, this analytical descriptive study is divided into three main themes, the first axis addressed an important issue the conceptual rooting of artificial intelligence, the second is where we studied the concept of distance education using modern technologies, the third and final axis has been searched for Applications of artificial intelligence in the educational process.

Keywords: Artificial intelligence, education process, distance education, teacher, student.

Introduction:

Since the 1960s, artificial intelligence has been invading vast areas of human life. The use of information from the storage and transmission of information extends to reliance on it in more precise and specific areas such as industry, trade and others. But it soon spread into areas that human beings never dreamed of, It is its extension into the fields of health and education, and it has gone from being an instrument to being an instrument, and the professor wrote Vivek Wadua in Washington magazine, an article entitled "The future of education will be hypothetical "education", including that open online courses were supposed to revolutionize education, But this method, while important, fell short of expectations. I put the teachers in front of the cameras and filming the videos just like I did the first TV shows with the radio stars and the microphone, But this is about to change through the use of virtual reality, artificial intelligence and sensors, where we will talk

About artificial intelligence, digital teacher, virtual classes, and augmented reality.

This shows that in today's world, although it relies on information technology as a supportive and complementary means of education, future technology will put us before a new reality that is very different from where artificial intelligence will play an active and influential role in education in general and distance education in particular.

It is therefore expected that the next phase will increase our dependence on AI, especially with the spectacular developments in this world. and the interaction between information technology and contemporary brain research, which resulted in the emergence of a new branch of computing theory called Learning Ability Theory or Imaginary Learning Theory, which aims to identify the elements of an environment suitable for achieving the specific goal of the education process, its tools and the criteria against which it is measured to be successful This theory is concerned not only with the self-learning of computers and robotics, but also with the use and use of research in the field of education.new education and learning models for a new era, It also requires the use of these techniques to rethink the nature of education and the roles of teachers and students, and the educational environment once again, that is, the transition from education that characterized the era of industry that has given rise to the current formulas and applications of education, to education imposed by the information age and knowledge society, or post-industrial age, as well as thinking about education that will unfold through the Fourth Industrial Revolution.

Based on the foregoing, the problem raised in this study is:**to what extent have IQ applications contributed to the development of the education process and in particular distance learning techniques?**

In response to the problem raised, this analytical descriptive study is divided into three main themes, the first axis addressed an important issue the conceptual rooting of artificial intelligence, the second is where we studied the concept of distance education using modern technologies, The third and final axis has been searched for Applications of artificial intelligence in the educational process.

The first axis: the conceptual rooting of artificial intelligence

The concept of artificial intelligence is linked to intelligence associated with digital or electronic devices such as; Computer, cellular devices or robots, AI expresses the ability of these digital devices to perform tasks associated with smart objects, AI applies to systems that enjoy human intellectual processes such as; the ability to think, discover meaning and learn from past experiences. Examples of processes performed by digital devices that result from the existence of artificial intelligence are examples; Discover evidence for mathematical theories, chess play, medical diagnosis, web search engines, Recognizing sound or handwriting (Britannica Retrieved, 2021).

In terms of AI history, the history of AI goes back to classical philosophers in Greece; the study of the existence of artificial intelligence began in 1940 at a school of thought called Communication In 1950.

Hodgkin Huxley came after him to present a model that mimics the human brain in the form of an electrical network representing neurons. Models and studies helped to launch the concept of artificial intelligence in 1956 at a conference held by Dartmouth College. The concept of artificial intelligence is linked to intelligence associated with digital or electronic devices such as; Computer, cellular devices or robots, AI expresses the ability of these digital devices to perform tasks associated with smart objects, (Dataversity Retrieved, 2021) AI applies to systems that enjoy human intellectual processes such as; the ability to think, discover meaning and learn from past experiences.

Examples of processes performed by digital devices that result from the existence of artificial intelligence are examples; Discovering evidence for mathematical theories, chess play, medical diagnosis, web search engines, voice recognition or handwriting. In terms of AI history, the history of AI goes back to classical philosophers in Greece, and began studying the subject of the existence of AI In 1940 AD in a school of thought called communication, so that the study of the process of thinking began in it, and

Alan Turing presented a research paper in which he studies a thinking machine that imitates man without noticeable differences in it in 1950.

Hodgkin Huxley came after him to present a model that simulates the human brain in the form of an electrical network representing neurons, and an electric current that simulates the pulses that turn on or stop cells, and these models and studies helped to launch the concept of artificial intelligence in 1956 at a conference held by Dartmouth College ("Top 10 Artificial Intelligence (AI) Applications", analytics steps, Retrieved 29/9/2021).

Due to the unavailability of high speeds and storage capacities, AI research has been discontinued for a long time and then resumed in the 1980s after the United States of America and the United Kingdom introduced the Fifth Generation Project in Computer Technology. In the early 1990s AI research transformed its field into a so-called smart agent, Which is used in news recovery services, online shopping and web browsing, Researchers are still trying to use artificial intelligence in unprecedented areas such as; Physical assistance provided by robots, customer service programs, telephone answers and others (Alvin Toffler, 1990, p 20).

It should also be noted that AI works in the digital environment through the availability of digital devices and specialized software to analyze and design algorithms and machine learning, and in general the AI system absorbs large amounts of training data. [3] Where training data is used in the formation of linkages and patterns that are later used in building future predictions in smart robots, and the process of identifying and describing objects in images by reviewing millions of examples saved by the smart device.

A. With reference to AI categories, AI is in many electronic and digital fields, it is present in different forms and in many devices, so that it mimics the intelligence in the human mind, and AI falls under two main categories:

1. Narrow artificial intelligence: Narrow artificial intelligence is also known as weak artificial intelligence And it's a kind of intelligence that

mimics human intelligence but it's about a single, limited type of intelligence, Narrow AI focuses on performing one type of task but very well [4] One example of narrow artificial intelligence is: (Piber Levy, 2018, p 101) Google Search Engine. Image recognition software. Personal aid, like Alexa and Siri. Self-driving cars.

2. General AI: General AI is also known as powerful AI, a type of intelligence found in smart machines and devices, and general AI is characterized as a kind of in-machine intelligence that gains it as general as human intelligence, so that this intelligence is used to solve any problem, Examples of devices with general AI; Robots that are used to accomplish many tasks and make their decisions based on attitude, but building robots that have a human-like intelligence is still difficult and need to build large and complex neural networks such as those in the brain.

B. We mention the types of artificial intelligence:

1. Interactive machines: interactive machines are defined as the simplest existing level of robot, as they are designed to handle only one type of data and respond to current situations, [5] machines that are unable to create memories or use current information to build and make future decisions to improve their level or develop their intelligence, and are only designed to respond to the current situation, Examples of interactive machines; Machines designed to play chess against humans such as IBM Deep Blue are designed to respond to player movements by evaluating pieces on the chess board and moving them according to their coded play strategies(Piber Levy, 2018, p 97).

2. Limited Memory A Limited Memory Machine is a machine capable of storing a limited number of data-based information previously handled by a limited memory machine, so that a limited memory machine can build knowledge by memory when combined with its pre-programmed data, Examples of machines using limited memory; Self-driving cars, so that these cars store pre-programmed data such as; Maps or traffic marks, comparing this stored data with surrounding information such as; Speed and direction of nearby cars and pedestrian traffic side by side and take appropriate action based on this data (John Brockmann, 2005, p 227.229).

3. Theory of mind used theory of mind in the design of the famous robot Sofia a robot capable of using information in interacting with situations in a human-like manner, that teaches the machine or robot how to act in a different and new situation. The theory of reason is based on the development and design of robots that use talking robots to the human mind that is based on feelings and ideas that exist in the human person before he makes the decision-making process. S Mind Theory robot speaks to humans, using information and images in decision-making and responding to humans, as well as showing dazzling facial expressions.

4. Self-awareness devices are the ultimate goal of AI these machines have an awareness of men mental level and understand why they exist in this world. So that the machine not only asks for something it needs, but understands it needs something. And that means that the machine understands its internal condition deeply and can predict the feelings of others around it just like humans, For example, when someone screams in front of us we realize that they are angry, this conclusion is based on the feelings of the person himself, so that these conclusions are based on the existence of reason (Kumar Neha Yadav, Anupam Yadav Manoj, 2015, p 18).

The second axis: The concept of distance education using modern technologies

Distance education is an educational experience and concept that describes the world of teacher-learner relationships in a non-traditional learning environment built on the use of modern techniques through artificial intelligence tools incorporated into the education process where teachers are separated from learners in the place, time or both education "(Bell Daniel, 1976, p 55), in which the learner is reached on the basis of contemporary technology and means of communication, and has several wages;

Professor Otto Peters has defined him as "distance education or training is a method of achieving goals, whether cognitive, skilled or conscious Education is organized by professional institutions in order to reproduce high-quality educational materials that bring them into conformity with their principles, including the widespread use of technological media; in particular for teaching and learning, where it is possible to teach a large number of

students at the same time whatever their whereabouts, which some consider to be a" (Simonsen, 2015, p. 04).

Professor Michael Moore defined the term "distance education" as a set of teaching methods in which learning goals derive from learning goals, including those requiring students' presence, and therefore communication between a teacher and a learner should be strengthened by any printed, mechanical or electronic materials or media, etc. (Simonsen, 2015, p. 04).

As defined by the United Nations Educational, Cultural and Scientific Organization (UNESCO) as "The process of transferring knowledge to the learner at his or her place of residence or work instead of the learner moving to the educational institution education ", which is based on the delivery of knowledge, skills and educational materials to the learner through the media and different technical methods where the learner is away or separated from the teacher or based on the educational process, The technology is used to fill the gap between both parties by simulating face-to-face contact education ", if distance education is only educational interactions in which the teacher and the learner are separated from each other in time, space or both" (UNESCO, 2020, p. 14).

Through the above-mentioned definitions, distance education depends primarily on technology-mediated communication, which is based on the use of techniques and media to facilitate educational transactions, driven by three basic elements: teacher, learner and educational content.

The third axis: Applications of artificial intelligence in the educational process

The diagnosis of education in developing countries, one of which is Algeria, shows that its education systems are concerned primarily with the delivery of the certificate to graduates without attention to the quality of knowledge and skill, even if they attempt to do so (Mohamed Ibrahim Mansour, 1996, p. 26). The examination systems are designed to obtain the curriculum's compatibility with the scientific qualification. AI applications developed to develop the educational process include:

- Educational software systems with an artificial intelligence component, whose task is to monitor and monitor students' work and instruct them to gather information on individual students' performance. (Lutfi Khadija, 2019);

- Computer-based educational systems with separate databases, including knowledge bases for educational content; Education strategies (Al-Ratimi Mohamed Abu al-Qasim, 2009, P 98);

- Smart learning systems are a link between computer-based learning behavioural style and cognitive pattern, as they are the product of research in artificial intelligence because they include models about the field to be learned, and those interested in education believe that system efficiency, compounds about students and a composite about the learner based on knowledge gained rather than what has been taught (Al-Ratimi Mohamed Abu al-Qasim, 2009, P 99), smart learning systems used for AI technology consist of the four models Basic (Bedouin Amal Mohammed Abdullah, 2017, pp. 349-350).

A.Field model, characterized by:

- Source of generation of learning content, explanation and examples of the subject or curriculum of the system

Smart education by teaching it;

- Source of generating issues and questions presented by the system to the student as exercises or tests to be resolved by the student;

- Source of generation of solutions and model responses to questions and problems related to the subject of learning, such as identifying and clarifying the correct different behaviours, steps and paths that can be followed in those solutions and responses;

- A criterion whereby the student's answer and performance can be evaluated and corrected, not only in order to evaluate the student's final result in the solution, but also in all the steps that the student endeavours to reach the solution, by comparing the student's answer to the correct response generated by the smart education system;

- Source of generating clarifications and justifications for responding to two important questions in learning (why and how) in a sense

Why has a particular method or strategy been used to solve a matter or problem? How has this solution been reached?

B.Teaching model, among its characteristics:

- Control between other models constituting the intelligent educational system;

- Making teaching decisions for the student, such as determining the appropriate teaching method and strategy for the student;
- Reduce the gap between the expert's knowledge in a beauty model and the student's knowledge stored in the student model.

C. Student's model. One of its characteristics is:

- Determining the student's current cognitive status and level of progress in learning a subject;
- Preservation and recording of the student's educational progress in the system and the nature of the errors made by the student during the learning;
- To give measures and indicators about the student's learning slow on an ongoing basis;
- Identification and distinction between misconceptions and the student's missing concepts;
- Determining the student's performance in answering questions provided by the system in terms of time and degree of correctness.

D. Interaction interface model, its characteristics include:

- Linking the student with the smart educational system on the one hand and the parts and components of the program on the other;
- Giving the intelligent educational system the possibility of a two-way, mixed dialogue between it and the student;
- Integrating and incorporating the student into the learning process through attractive methods and means of presentation, flexibility and diversity of presentation of the educational subject in accordance with the student's individuality and requirements, and interacting with him in the natural language he understands;

- Presentation of various methods and patterns of questions and problems and ways of answering them in scientific reality.

Conclusion:

In today's world, distance education is no longer an option but a complementary and complementary strategy for human formation. In order to respond to and keep abreast of today's variables and so that the researcher and student can improve their level in the light of the growing cognitive explosion, But distance education is not a substitute for classical education, but in turn it must employ technology, technology and artificial intelligence as auxiliaries in the educational process. In other words, we must rely on different approaches and programmes that respond to the variables of the next phase, This is because we are moving towards a different education in a future dominated by the use of technology and artificial intelligence.

especially since its current developments have demonstrated its ability to resolve some of the problems of distance education in its first and second generation, AI has been able to reduce the lack of interactive teaching between professor and student - especially the difficulties created by electronic platforms, although it provides students with information But it does not allow them to swallow it without thinking, analysis or discussion. It also lacks the characteristic of graduation in education and taking into account the disparity in intelligence and level among students. This can be minimized by expert systems that can play the role of a human expert and through smart programs that can screen students according to their scientific and cognitive level.

It can also help teachers assess students' achievement and identify their strengths and weaknesses, as well as contribute to enhancing our understanding of actual reality through the development of virtual reality education.

It can therefore be argued that future developments in distance education will be a reflection of developments in artificial intelligence and are linked to its future.

List of references approved in the study:

1. Lutfi Khadija, *Research Online Publication: How AI Can Influence Education*, (2019) Website: <https://www.new-educ.com/category/studies>.
2. Mohamed Ibrahim Mansour, *Education and Continuous Development*, Publications of the Dar Al-Future Center, Assiut University, Egypt, 1996.
3. Bedouin Amal Mohammed Abdullah, *Intelligent Learning and His Relationship By Mathematics Teachers in Smart Learning Schools*, *Journal of the Islamic University of Educational and Psychological Studies* ", vol. 02, No. 02, Islamic University, Gaza, Palestine 2017.
4. Al-Ratimi Mohamed Abu al-Qasim, *Artificial Intelligence in Education, Smart Education Systems*, Libyan Society of Industrial Intelligence, 7th of April University, Zawiya, Libya 2009.
5. Bell Daniel, *The Coming of the Post-Industrial Society- The Educational Forum* 04, n° 40, 1976.
6. Lonescu Publications, *Distance Learning and Strategic Tools*, United Nations Educational, Educational and Cultural Organization, 2020.
7. Simonson, Michael, *Equivalency theory and distance education*, *TechTrends* 43, n° 05 (November 2005).
8. Kumar Neha Yadav, Anupam Yadav Manoj, *An Introduction to Neural Network Methods for Differential Equations*. New York, London, Springer, 2015.
9. John Brockmann, *New Humanity, I*, Supreme Council for Culture, Cairo 2005.
10. Alvin Toffler, *The Shock of the Future - Changes in Tomorrow's World*, i 2, Translation by Mohamed Ali Nassif Egyptian Society for the Dissemination of World Knowledge and Culture, Cairo
11. Piber Levy, *our virtual world is what? What does it have to do with reality? (i)* (Translation: Riyadh al-Kahal, Bahrain Culture Authority Antiquities, Bahrain 2018.
12. "Top 10 Artificial Intelligence (AI) Applications", *analytics steps*, Retrieved 29/9/2021.
13. *Dataversity Retrieved, A Brief History of Artificial Intelligence*, 27/9/2021, <https://mawdoo3.com>.
14. *britannica, Retrieved, artificial intelligence"*, 27/9/2021, britannica.com.



E-Learning: A Communication Style Between Students and Instructors: A Study of its Nature, Negative and Positive Effects

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Abstract

E-learning is one of the most prominent phenomena that has accompanied the world community since the emergence of the digital and technological revolution. The need for these digital technologies has increased with the increasing cases of urgent need for them according to the realities of the situation. For example, the world's need for e-learning technologies emerged after the COVID-19 pandemic, which proved that the advantages of e-learning are no less important than face-to-face education, but rather that e-learning has exceeded the importance that face-to-face education has enjoyed, according to what this type of education (distance learning) has provided from features and data that have affected the virtual educational reality and led to the emergence of a distinguished group of professors who are proficient in dealing with computers and electronics. This in itself formed a positive point among a series of positives that came out of this education.

Keywords: e-learning, e-learning, applications, computer, digitization, digital transformation.

The first topic: What is e-learning?

Anyone who follows the history of education in general will see that there have been a number of important historical turning points that have affected the methods, curricula, and approaches to education around the world. As a result, many countries have been forced to adopt alternative methods for fear of halting the education process. Perhaps one of the most important historical milestones and turning points in the history of education was the COVID-19 pandemic. This pandemic forced all countries in the

world to close their schools, universities, and scientific institutes, and to resort to e-learning out of necessity. (Alalaq, 2023).

There is no single definition for the term "distance education" (e-learning). When such a name is mentioned in academic circles, the phenomenon of dealing with computing, digitization, and the data of the technological revolution comes to mind, and what resulted from it is the birth of that huge amount of applications, programs, and websites that have provided the opportunity to receive education in various forms (lessons, courses, conferences, workshops, lectures, seminars, etc.). So, today we are faced with one of the most important scientific phenomena that accompanied its emergence with exceptional circumstances that forced everyone to resort to the advantages of this type of education.

E-learning is defined as the phenomenon of using computer tools, communication devices, and remote communication between the student and the professor without the recipient being physically present in the classroom. Such a phenomenon can be considered as an emergency situation that may occur in a society under certain circumstances that force them to resort to this type of education.

The forms of e-learning have diversified with the development and modernization of the technical system. Conferences, seminars, and workshops have become accompanying phenomena of e-learning, and have even become inseparable from it. They have become a familiar phenomenon for many universities and research centers, even with the possibility of providing face-to-face education. However, many people have come to appreciate and prefer e-learning because of its ease of access and handling without any material or physical costs. (www.viewsonic)

Some people define e-learning as being parallel to distance learning, which emerged at a time when everyone was forced to stay at home and use computing and digital learning tools. Therefore, it is "the transfer of an educational program from its location in the campus of a particular educational institution to geographically dispersed locations, and aims to attract students who cannot continue in a traditional educational program under normal circumstances." This usually involved correspondence courses

in which the student corresponded with the professor through a variety of digital communication and reception channels.(<https://is.gd/fAhbAu>).

In general, it can be said that this type of education includes education that is conducted through the Internet, and taking advantage of the advantages of this global network, whether through forums, platforms, or specialized programs. E-learning does not require the same requirements as face-to-face classroom education, such as being bound by a specific time or having interaction between the teacher and the recipient at the same time.(<https://is.gd/Qyk6IA>)

The second section: The positive results of e-learning

The most important benefits of e-learning are related to what some call facing the challenges associated with classroom education for students, of course. It is not affected by the student's absence from the class, and e-learning also reduces the waste of time and money in order to reach school or university. It also enhances aspects of self-responsibility in the student's self-discipline, and gives the student a greater opportunity to expand sources of knowledge.(<https://is.gd/Qyk6IA>)

Based on what was mentioned in one of the articles and studies that discussed highlighting the benefits of e-learning, especially during the COVID-19 pandemic, Professor Amani Hazaa Al-Anezi mentioned the following: "This type of education is considered new to some people, and it has shown both positive and negative aspects for the teacher, the learner, and the parent." Among the positive aspects that Professor Amani mentioned are the following:

1. Providing students with an exceptional opportunity to continue their studies without interrupting their educational journey due to health conditions or any other exceptional circumstances.
2. Ensuring the health safety of learners by preventing them from directly mixing with the educational environment.
3. Presenting the scientific material in a modern way that is compatible with the technology of the current era.

4. Employing educational technology in a way that helps to reduce the cost of education.

5. Saving time and effort, especially the time that the learner spends going to and from the educational institution.

6. Enhancing the concept of self-directed learning among learners through this experience.(al-‘Anzī, 2021)

Therefore, we can say that the phenomenon of distance learning has a set of advantages that can be described as very flexible for people who do not have enough time to complete their education, or for those who find it difficult to reach the place of in-person lessons, or for those who do not have enough money to complete their education. This is especially true if education in some countries is paid for, not free, or at the very least, the cost of reaching the place of study, whether it is a school, center, institute, or university. This is not only the case, but both the teacher and the recipient are also freed from side expenses such as repairing transportation malfunctions, fuel costs, or even the cost of new clothes. In such cases, both parties may not have to spend such amounts.

In addition, we note that such a phenomenon may save a lot of time for both the recipient and the teacher. Some people live in remote areas from places of study, which requires time to reach the classrooms – naturally for both parties. This may cause both parties to delay performing their duties to the fullest, which may cause a problem that may obstruct the updating or development of one of the aspects of the educational and learning process alike. Thus, e-learning in such cases is like a lifesaver to cope with cases of delay and thus the stumbling block that may afflict the process as a whole.

This educational experience is a great experience for teachers and learners, even if this crisis ends, it will make them ready to face any exceptional circumstances without stopping education. All these efforts in e-learning directly serve the interests of learners in their educational journey.

On the other hand, we find that some countries have had a somewhat successful educational experience, especially European countries and the United States of America. These countries had already mastered and used the

experience of e-classrooms before the pandemic, so the results of their outputs were serious compared to third world countries.

The success of the e-learning experience that suddenly appeared with the emergence of the Corona pandemic actually depends on the development and selection of certain manifestations and models of e-learning. In other words, it is imperative that it meet the aspirations and requirements of education that they aspire to in the fourth industrial revolution, such as the continuous updating of educational networking and platforms to keep pace with developments and take into account the regulations and standards in the revolutionary education system, if you will

The third section: The negatives of e-learning

While we encourage the progress and development of the e-learning system due to the important educational data and results that this wonderful experience has produced, we stop for a moment when we want to evaluate this experience definitively and put the dots on the letters from all aspects of this phenomenon. Just as it had very important positive results, it had negative effects that some found to be an obstacle to the development of the individual system of the recipient (student), researcher, writer, and author.

This e-learning phenomenon had both positive and negative results. Among the negative results is that many countries in the world were new to the use of distance learning tools, and many of them did not use any of these tools in normal days (before the pandemic). Therefore, these countries faced a very complex problem in accepting the results and outputs of e-learning. Moreover, some of them did not have the infrastructure or human resources capable of receiving such technologies and dealing with them, so the experience was very bitter.

Also, one of the complex issues that some countries faced was that Internet services were very poor, and in other countries they were not available, and therefore those countries also faced a problem in opening electronic classes for their students, and this is what we find clearly in third world countries and developing countries in general (Alalaq, 2023)

Also, among the complex issues that these countries faced was the issue of the lack of response of many students to electronic classes, and this resulted from those students not using e-learning applications and tools before the pandemic, which resulted in a delay in the results. Rather, most of the outcomes of that experience in those countries were Very poor (Alalqa, 2023)

One of the prominent and significant negative outcomes of the phenomenon of online education is the complete social isolation it has caused for both teachers and learners. As it is known, face-to-face lessons create interaction not only within the classrooms but also within the university, institute, or center. Through traditional education, we find that people interact socially, meet, eat, drink, and converse with each other. All these aspects are a result of traditional education. Traditional education is not just about receiving the lesson directly from the teacher; it is a vital social phenomenon in itself. The isolation generated by online education makes many individuals unable to comprehend many concepts, matters, and issues related to their study materials. Furthermore, they are unable to interrupt the lesson as they require sufficient time for the teacher to complete their lecture and then open the floor for discussion, along with the overlapping voices and delays in response or the lack of receiving an adequate answer (Alşlāfyh, 2023)

We can also observe one of the harms that affect students and act as a stumbling block in their path, which is the phenomenon of cheating in exams. Through online exams, it is impossible for the teacher to have control over the online exam room in any way, no matter how hard they try to combat the phenomenon of student cheating. Additionally, the technological revolution has not put an end to this dangerous problem that spreads among students.

Furthermore, one of the prominent negative aspects produced by online education is that many teachers tend to focus more on the theoretical side without emphasizing the practical aspect. As everyone knows, the practical aspect is important in many disciplines and may be much more significant than the theoretical aspect. In some fields, there may be specializations that do not rely on the theoretical side at all. This causes clear confusion in the educational outcomes for that group of students, and as a result, they are unable to keep up with their practical skills after graduation and employment.

This applies to medical specialties, which have clearly suffered setbacks in managing their tasks in hospitals and health centers. (Taysīr, 2022)

Among the negative outcomes of online education, there is also the issue of inflexible engagement with digital materials and computing, including applications, software, and technological tools. Many individuals are not familiar with the use of digital technology, and some may not even know what a computer, the internet, or an application/program means. Therefore, involving such groups in the practical side of using digital systems has caused confusion and delays in what they deliver to students or to the institution they work for. Naturally, this has affected educational outcomes. Additionally, the need for digital infrastructure has been and continues to be a barrier to updating the remote learning system. This in itself poses a danger to those who adopt or advocate for online education. (Maḥbūb, 2018)

Therefore, after considering all that has been mentioned, we can say that the phenomenon of online education has both drawbacks and negative aspects, as well as positives. In both cases, we are compelled to follow and adopt blended learning, which combines face-to-face education with online education.

References

- Alalaq, A. S. (2023). *E-learning Experience in Light of the Corona Pandemic*. Available at SSRN 4558758.
<https://www.viewsonic.com/library/ar/%D8%A7%D9%84%D8%AA%D8%B9%D9%84%D9%8A%D9%85/what-is-distance-learning-and-why-is-it-so-important/>
- Alṣlāfyh, Duḥā (2023). *Salbīyāt al-Ta'lim al-iliktrūnī*.
<https://is.gd/eAfYXb>
- Amānī Hazzā' al-'Anzī, iyjābyāt al-Ta'lim al-iliktrūnī fī zill jā'hh kwrwnā (kwfyd 19).
<https://is.gd/Qd11tN>
- Maḥbūb, Shurūq (2018). *'Uyūb al-Ta'lim al-iliktrūnī*.
<https://is.gd/xJJcul>
- Taysīr, Muḥammad (2022). *Salbīyāt al-Ta'lim 'an bu'd*.
<https://is.gd/2e5Lse>

- <https://is.gd/fAhbAu>
- <https://is.gd/Qyk6IA>

Presentation of Culture in the Artificial Intelligence English Language Education

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Abstract

The present paper is concerned with the presentation of culture in the artificial intelligence in English foreign language secondary school classroom education. It aims at exploring the role of the artificial intelligence in the process of English language teaching and learning. The main idea of the current paper is to count on the distribution of types and categories of culture contents in the English language education. The main results of the paper show that all the samples revealed that much more attention has been given to the question of the artificial intelligence in relationship with the big “C” culture over small “c” culture in the sense that the artificial intelligence represents macro cultural issues rather than micro cultural issues. On the basis of the results, pedagogical implications and recommendations are suggested to remedy the existing cultural deficiencies in the English language education with the integration of the tools and mediums of the artificial intelligence.

Keywords: Culture, big “C” culture, small “c” culture artificial intelligence, English language education, the role of the artificial intelligence and English language education.

Introduction

The close relation between culture and language has been stressed by researchers in the field of education. Kramsch (1993, p. 217) affirms that: “culture and language are inseparable and constitute a single universe or domain of experience”. Therefore culture plays an important role in language learning teaching process. The latter implies that language educators have become aware that foreign language cannot be learnt without addressing the cultural background in it. Acknowledging the fact that foreign language has been subject to development toward communicative needs, culture has necessarily been reflected. Regarding the development of the artificial intelligence in FLT and its relationship with culture, the importance of teaching culture in English as a foreign language is asserted in the Algerian



curriculum of education through English language textbook by the means of artificial intelligence tools .However, with the educational reform of 2016 that implies the new teaching methods must count on the artificial intelligence. This study has generated a number of research questions and attempts to answer them;

- What is the nature of the relationship between language and culture?
- What are categories of culture presented in the language classroom?
- What is the relationship between language-culture teaching and the artificial?

1. Culture and Language

The notion of culture occupies a central position in the field of human and social sciences. According to Hollins (2008: 18) “culture simply is a learned pattern of thought and behavior that are passed from one generation to another and are experienced as distinct to a particular group”. So it is a simultaneously action and a state of being towards everything around us as. Hollins also (2008: 18) points out that “culture is derived from understandings acquired by people through experience and observation about how to live together as a community, how to interact with the physical environment, and knowledge or beliefs about their relationships or positions within the universe”. Culture by this way is about the question of who we are and how we exist in the world.

To conclude, the most basic words that best define culture is that all the trends of defining culture seem limitless and perfectly working definition is that one best fits one particular purpose. The aim of stating all the previous definitions is to keep the process of defining culture as clear, simple, and meaningful as possible. It is imperative to organize thought and define culture according to those definitions that are pertinent to the context of culture content in the Algerian EFL classroom setting. Since many EFL teachers and learners are expected to have some personal, academic, and professional experience of dealing with more than one culture. As an example, at least, everyone has intentions to interact, deal, and communicate with people of other cultures other than theirs through the medium of English language.

2. Culture Categories

2. 1. Non-Target Culture

This category refers to the learner’s own culture or it is labelled as source culture. In this current study, this category represents the Algerian

national culture with its North African Islamic and Arabic dimension. Hinkel (1999) states: “learners are encouraged to talk about their culture ..., because then they become aware of their own cultural identity”.

In regard to its role, the source culture presented in teaching materials gives insights into the learners’ local culture through topics, themes, vocabularies as to enrich their knowledge and understanding. Laohawiriyanon (2013:84). In addition, despite the fact of its significance, it was criticized of being meaningless to refer to in the foreign language teaching material that is expected to address the target culture .As Stewart (1972) asserts: “that target culture is an indispensable part of foreign language instruction, while local culture reference in language teaching is absurd. In this case Algerian learners of English need to construct their own cultural identity that combines the awareness of the three mentioned dimensions as a whole.

2. 2. Target Culture

This category refersto a culture where target language is used as a first language Laohiwiriyanon (2013:84) as United Kingdom, America. Thus this category of culture would present the culture of countries whose native language is English.

Commenting on the importance of target culture in classrooms, Valette (1986) expresses four types of goals when teaching target culture which are accordingly: developing awareness, knowledge, etiquette, and understanding cultural differences between target culture and one’s own culture. Also, the significance of target culture can affect the language learner readiness to approach culture.

2. 3. International Culture

This category refers to cultures that are neither source nor target culture; these refer to a variety of cultures in English- or non -English-speaking countries around the world, which use English as an international language. It becomes sensible to establish a reasonable direction for the integration of international cultures in since English language is no more restricted to its own native users, but to anyone who use it as being recognized as an international language and a lingua franca. Consequently, the users of English all around the world can express their cultural identity which it totally not relevant to the English setting through it (Bryan, 1994, 101). Further, McKay (cited in Laohawiriyanon, 2013:85) proposes three benefits of international target culture in materials: the first one is that they should be able to reflect their own notions of what is appropriate. Secondly, it

reveals the way English can be used effectively in international contexts. Finally, there should be a choice for non-native English speakers to reflect cultural norms of culture other than native- English-speaking cultures if English is to be considered as a lingua franca. The inclusion of international culture is a forceful fact due to special feature of English as an international language.

3. Themes of Culture

3. 1. Big “C” Culture

Big “C” is one fold of the two themes of culture .It was introduced by many scholars. To start with Chastain (1988) , he claims “Big “c” refers to the social life, family institutions, customs, and leisure activities....etc. of a given society Further, Tomalin and Stempleski (1993) explain that big ‘C’ culture or what he called ‘achievement culture’ composed of history, geography, institutions, literature, art, and music. In this respect, “big c” would reflects the nature of culture through physical products .In the same line, (Jing, 2010: 5) declares that culture is composed of visible elements as politics, economy, history, literature, fine arts, sciences and geography.

3. 2. Small “c” Culture

The other fold of the theme of culture is small “c”. It is also referred to small “c” as “little “c” culture which is the culture of everyday life. By its turn, it was defined as “behaviour culture” which has been broadened to include “culturally-influenced beliefs and perceptions, especially expressed though language”. In this sense, it would imply the infusion of visibility and invisibility through language transmission of small “c”. Within the same bath, Peterson (2004: 24-25) distinguishes two types of small “c”. The first one is the invisible culture such as popular issues, opinions, viewpoints, preferences and tastes, certain knowledge (trivia, facts). The second type is the invisible culture such as gestures, body posture, and use of space, clothing style, food, hobbies, and music. It is related to the civilization and society’s contributions to the world.

3.3. Artificial Intelligence in English Language:

The phrase "intelligence" is quite complicated. It encompasses a variety of manifestations, including consciousness, emotional awareness, self-knowledge, preparedness, and creativity. According to Joshi (2019, p. 4), AI may not mean creating a knowledgeable computer that can solve every issue but instead creating a device that can function like a person. Artificial intelligence aims to create computer programs or hardware systems that exhibit characteristics of human intellect or think like humans (Campesato,

2020). Theoretically, an AI-powered computer system is capable of activities that ordinarily require human intelligence. Artificial intelligence may comprehend some elements of the human intellect, including speech comprehension, linguistic awareness, decision-making, and visual perception. There is a need for AI to develop expert systems and discover answers to challenging issues like recognition and natural language processing (Devi et al., 2020).

Using AI as a language instructor AI delivers persistent, customized instruction, giving learners the copious amounts of feedback and scaffolding exercises required to attain fluency, all in a low-stakes setting (learners are more likely to take chances and make mistakes). The primary promise of artificial intelligence is that it will accelerate the skill development process. According to Kaur & Gill (2019), artificial intelligence (AI) is a digital effort to replicate human intellect by utilizing various machine calculations. It is a cutting-edge technology collection that lets people think, feel, act, and earn like machines. Artificial intelligence (AI) is a subfield of computer science that stresses machines' capacity for human-like thought and behavior. Machines assist in solving complicated issues in a way that is more like human thought (Sridhar, 2018). This necessitates taking aspects of human intellect and adapting them to work well with computers.

Artificial intelligence (AI) can perform human behaviors like language acquisition, planning, decision-making, and other cognitive tasks (AI). With the rise of technology and digital platforms, English teaching and learning have grown simpler. Now, there is a chance to develop your English-language abilities. As a result, if a machine could teach English, perhaps we wouldn't need English teachers in the classroom or English education (Shin, 2018). The Fourth Revolution does not thus need to replace English education. An artificial intelligence-based English class model should instead be developed in conjunction with the teaching and learning of English. An effective combination to increase global competency is language literacy and digital literacy. According to Ribeiro (2020), the most important practical use of artificial intelligence for English language instructors is in ELT. English is one of the world's most common languages with a structured grammatical system. As a result, studying English has always been challenging for pupils learning it as a second or foreign language (ESL/EFL) (Mehrotra, 2019). Therefore, using artificial intelligence, machine learning, intelligent search, and natural language processing may successfully advance reforms in English teaching and learning (Wang, 2019).

4. Research Methodology

The chapter of methodology deals with the research design which includes the research's approach, sample and population. This chapter reflects on the procedure by which the gathering of data has been done and explained as well as the data analysis procedures. Along with the tools chosen to gather data for this research, the chapter also explains the methods of analysis applied.

4. 1. Research approach

The research type chosen for this study is document analysis. Document analysis is a form of qualitative research in which documents are interpreted by the researcher to give voice and meaning around an assessment topic (Bowen, 2009) .Analysing documents incorporates coding content into themes similar to how focus group or interview transcripts are analysed (Ibid).

Discussing the many advantages of document analysis, it can also contain data that no longer can be observed, provide details that informants have forgotten, and can track change and development Document analysis can also point to questions that need to be asked or to situations that need to be observed, making the use of document analysis a way to ensure your research is critical and comprehensive (Ibid).

The document chosen for analysis in the current study is the second generation first year middle school English language textbook. And it has been analysed for its cultural content as to track the objectives of intercultural communication within the new pedagogical reform of 2016.

4. 2. Checklist for Data Collection

The first checklist addresses the culture-based contents in terms of the categories of culture, while the second one is about types of culture content. These two checklists are designed to gather holistic data about the three Algerian EFL textbooks. The textbooks are evaluated on the basis of the guidelines of the following checklists.

4. 2. 1. Cortazzi and Jin Checklist

This checklist evaluates the place of culture in the textbooks in terms of the category of culture based contents. It investigates all the cultural information concerning the following categories of culture:



- the source culture (learners' native culture or any culture out of the English speaking countries cultures),
- the target culture (English speaking cultures, more specifically, the United States of America and the United Kingdom),

On the other hand, it examines the potential of this type of content to develop the learners' cultural skills. It tries to pinpoint how such elements enable the learners to perceive and categorize socio-cultural situations. For them, in order to develop the learners cultural skills it is important to help them first recognize and then produce (Cortazzi and Jin, 2009). In clearer words, it is essential for EFL learners to recognize cultural categories and then use them in appropriate contexts.

Another pertinent question in this model is about the place of the learners' native culture and its relationship to the target culture. The researcher intends to indicate whether each of these cultures is represented in isolation or if there are some links which are established to relate them. In addition, it looks to the analyzer of the ideological matters as reflected in the textbook in the way of questioning unstated beliefs at the basis of the designers' decisions about what cultural elements to select.

4. 2. 2. Chen Checklist

Chen (2004) checklist is designed to collect data about the culture content. This survey is made on the basis of a modified version of Chen (2004) checklist. The checklist of Chen is composed of 9 themes for big "C" culture and 13 themes for little "c". The researcher adopts the following principles to conduct the data collection in relation to the types and themes in the in selected EFL textbook in the table below.

5. Data Organization and Analyses

After the completion of data collection, the next phase is to analyse and interpret the results obtained. This chapter includes a presentation of the results obtained from the content analysis checklist, and the analysis and interpretations of those results collected from the first year middle school English textbook "My part of English" for first year middle school textbook of English. The data are analysed and interpreted in matter of occurrence not importance.

5. 1. Categories of Culture “Target Culture versus Native Culture”

The results have shown that there exist two categories of culture in the second generation first year textbook of English “My book of English” .They are target culture composed of British, American, and Australian cultures and non-target culture i.e. Algerian culture. These two categories are according to the categorization of Cortazzi .The two categories of culture are imbalanced in term of distribution; the non-target culture is significantly dominant in comparison to the target culture .This implies the focus of teaching the Algerian culture .Commenting on their presentation both in the textbook relatively in accordance with the of the related claims that when beginners EFL learners are exposed to their local culture ,it gives them self-confidence and the ability to talk to others about their own culture and that when learners proceeds to the next level of foreign language learning process, they should be exposed to a wider range of the cultural elements of the target culture. Based on previous mentioned claims, it is concluded that the dominance of the non-target culture is due to priority to have a basic knowledge of the non-target first and then progressively move to the introduction of the target culture.

5. 2. Themes of Culture “Big “C” Culture versus Small “c” Culture”

The findings have shown that the two themes of culture: big “C” and small “c” are presented in the in the textbook in both target and non-target cultures .The results recorded a high preference for big “C” culture over small “c” learning. This dominance has relatively matched a number of studies done in the same area. They recorded the high frequency of the big “C” culture in comparison to small “c” culture. In addition, It was found that all the ninth aspects of Chen Model of big “C” learning have been referred to among the big “C” aspects, the four most referred to are “Society’s norms”, “Geography”, “Politics”, and “Education” . These themes were issued by most famous geographical places, national characters, and the structure of educational system. This would reflect the inclusion of Tomalin and Stempleski (1993) big “C” includes culture or what he called “achievement culture” composed of history, geography, institutions, literature, art, and music. Also, a low percentage of small “c” culture was observed. The slight portion of small “c” has been shown through all the aspects regarded to Chen model list which are respectively: “Values” as peace, belonging , pride ; “Lifestyle” as , “Hobbies” as football ,bailey, “Food” as famous dishes , “Holiday” as national days , “Customs” as tradition of celebrating , except “body language and gestures” aspect. This latter is absent. The “Values”

aspect has gained the highest occurrence among the other aspects of small “c”. This high occurrence of values matches the emphasis given to maintain the cultural values in the objectives of the curriculum. To conclude, the dominance of big “C” reveals the high inclusion of cultural knowledge of products and achievements.

5. 3. Culture Content for intercultural Communicative Objectives

The findings show that both categories and themes of culture are presented in the textbook. In terms of the categories of culture, both target and non-target culture are presented; This would highlight the awareness and openness to the inclusion of variety of cultures in the textbook; This would go with the basic conception of the intercultural communication of the presence of two or more cultures when communicating. In terms of culture themes, it is noticed that the presentation of big “C” that provides knowledge about the visible products of culture as Tomalin and Stempleski (1993) state that big “c” reflects the nature of culture through physical products. In addition, Small “c” culture is presented also, and its presentation would reflect the knowledge of invisible behaviours as it is clear in Tomalin and Stempleski (1993) definition that small “c” or “behaviour culture” which has been broadened to include “culturally-influenced beliefs and perceptions, especially expressed through language” . On the one hand, the presentation of big “C” and small “c” would assert the fact that they provide basic knowledge of both products and practices. On the other hand, cultural knowledge represents one of the fundamental components that is needed in developing intercultural communication as stated by Byram, Fleming, David Steven (2001 ,p 5) “knowledge” (savoir) demands both the knowledge of the practices and products of one’s own culture and other cultures. Coming to link between the two previous mentioned notions, it can be concluded that culture themes represent the cultural knowledge that constitutes intercultural communication. To summarize, the interplay between the categories and themes of culture presented in the textbook would imply their contribution to prove the curriculum objective of highlighting the intercultural communication objective through the provision of cultural knowledge for both in the Algerian Curriculum.

5. 4. Pedagogical Implications

The following section of the present chapter provides implications that are derived from the findings and results. The main aim of this study was to analyze culture presentation of the second generation first year middle school textbook of English in Algeria. With the aspiration to achieve this aim, three

sub aims were targeted that are accordingly, identifying the culture presentation through the lenses of the categories, themes, and the possible interplay that would develop learners intercultural communication within the teaching learning process.

The main suggestion is for textbook authors and language educators as to take into consideration the finding of this study. In the sense of being aware of what to include in terms of cultural themes and categories in the content of the textbook and the extent to which these previous mentioned elements are important to be highlighted.

In addition, having this analysis in hand would provide them with the basic and solid background to establish an effective cultural frame work. And this latter by turn, would ensure a fruitful outcomes in the process of the developing demands of intercultural communication. Also, it is crucial for language educators to account for the process of designing and even analysing the coming versions of the second generation textbooks at the other levels of middle school with careful attention to culture presentation.

5. 5. Recommendations

In this study, the researcher aims to analyse the presentation of culture of the second generation first year middle school textbook of English in Algeria. The analysis is conducted in terms of the categories of culture: which are target and non-target. Also in terms of cultural themes: big “C” and small “c”. The results reveal what content to be taught and to what extent in terms of the previous mentioned categories and themes for the textbook in order to develop learners’ intercultural competence.

This research study raises numerous possibilities for further recommendations. One of the latter is that since this textbook represents the first version of the second generation textbooks of middle school , the conclusion about the cultural content of the analysed textbook is not sufficient ,thus the whole coming series of second generation from the first to the fourth year should be investigated in order to have a full picture .In addition, another area to be investigated is analysing the content of the textbook from the three dimensions of culture, language, and context as to gain insights of how to use the cultural content in real life situation .Another recommendation is the possibility of conducting an evaluation for the textbook .

Since this study highlighted the importance of culture presentation in terms of what it is included and to which extent to develop intercultural communication, it raises the suggestion of exploring how the cultural content should serves intercultural communication objectives.

General Conclusion

Culture is considered one of the main concerns of language educators in the field of FLLT. Based on this regard, it is necessary to account for its development within the changes in the process of teaching and learning of English as a foreign language in Algeria at the level of textbook.

One tool was used to collect the data necessary for this study that is content analysis. This latter is based on the infusion of two checklists which are accordingly: a checklist for categories of culture and another one for themes of culture. The content analysis checklist was used to detect the nature and distribution of both categories and themes of culture in the textbook and how this distribution reflect intercultural communicative objective in the textbook. The results revealed that both categories and themes of culture are presented in the textbook with unbalanced portion for both that is summarized as follows: Non-target culture dominance over target culture and big “C” occurrence over small “c”. This distribution revealed the nature of culture presented the textbook in terms of two critical points which are respectively: the culture presentation is based heavily on non-target culture and knowledge of cultural products and achievement. And by turn, this would reveal that the interplay between the two categories and themes emphasize the development of intercultural communicative at the level of proving intercultural knowledge.

The results raised certain implication to language educators to be aware of what categories and themes of culture and to which extent to be included in the textbook to develop intercultural communicative competence.

References

- Bowen, G. A. (2009). *Document analysis as a qualitative research method*. *Qualitative Research Journal*, 9(2), 27-40. doi:10.3316/QRJ0902027
- Byram, M., Morgan, C. & Colleagues. (1994). *Teaching and Learning Language and Culture*. Great Britain: WBC.
- Byram, M. & V. Esarte-Sarries. (1991). *Investigating Cultural Studies in Foreign Language Teaching: a Book for Teacher*. Clevedon: Multilingual Matters.



- Chen, H. S. (2004). *Intercultural Team Teaching. A Study of Foreign and Local EFL Teachers in Taiwan*, University of Durham, England.
- Chastain, K. (1988). *Developing Second Language Skills. Theory and Practice*. Orlando, Florida, USA.
- Cortazzi, M. (1990). *Cultural and Educational Expectations in the Language Classroom*. London; British Council.
- Jing, X. (2010). *Cultural Content of an in-use EFL Textbook and English Major Student's Attitudes and Perceptions towards Culture Learning at Jiangxi University of Science and Technology, China*
- Kramsch, C. (1993). *Context and culture in language teaching*. Oxford: Oxford University Press.
- Harris, H. (2001). 'Content analysis of secondary data: A study of courage in managerial decision making', *Journal of Business Ethics*, 34(3/4), 191–208.
- Hinkel, E. (Ed.). (1999). *Culture in second language teaching and learning*. 251 Cambridge: Cambridge University Press
- Hollins, R. E. (2008). *Culture in School Learning. Revealing the Deep Meaning. Second Edition*. Routledge. New York and London.
- Krippendorff, K. (2004). *Content Analysis: an Introduction to its Methodology, Second Edition*. Thousand Oaks, CA: Sage.
- Laohawiriyanon, C. (2013). *Cultural Content in EFL Listening and Speaking Textbooks for Chinese University Students*. *International Journal of English Language Education*. Vol. 1, No. 1. Prince of Songkla University.
- Peterson, B. (2004). *Cultural Intelligence. A Guide to Working with People from other Cultures*. United States of America.
- Stewart, E. (1972) *American cultural patterns: A cross-cultural perspective*. Chicago: Intercultural Press.
- Tomlin, B. & Stempelski, S. (1993). *Cultural Awareness*. Oxford, Oxford University Press.
- Valette, R. M. 1986. 'The culture test', in Valdes (ed.). 1986.
- Wintergerst, A. C., & McVeigh, J. (2010). *Tips for Teaching: a Practical Approach to Intercultural Communication*. White Plains, NY: Pearson Longman.

Transformative Pedagogy: Exploring the Integration of AI in Teaching Literature

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Abstract

This paper explores the dynamic synergy between literature and Artificial Intelligence (AI) in education. It emphasizes the transformative impact of AI on literature pedagogy, from historical teaching methods to the rise of adaptive learning systems. The paradigm shift facilitated by AI in teaching literature is examined, highlighting applications such as virtual mentors, personalized algorithms, and AI-driven analytical tools. The evolving role of AI as a literary mentor is discussed, emphasizing feedback, creative suggestions, and analytical insights. The paper advocates for a balanced integration of traditional and AI-based approaches in literature education. Additionally, emerging technologies like Virtual Reality, Augmented Reality, Blockchain, and potential AI developments are explored for their revolutionary potential in shaping the future of literature education.

Keywords: Literature, Education, Artificial Intelligence, Adaptive Learning, Virtual Mentors, Personalized Learning, Literary Analysis, Creative Writing.

1-Introduction

Literature stands as a bedrock of education, providing students with a profound avenue for exploration, critical thinking, and the cultivation of empathy. Its unique capacity to expose individuals to diverse perspectives, historical contexts, and imaginative realms positions it as an invaluable asset in the holistic development of well-rounded learners. In this exploration at the confluence of literature and technology, the introduction not only underscores the intrinsic significance of literature in education but also sets the stage for a deeper understanding of its evolving dynamics through the

transformative influence of Artificial Intelligence (AI). As we navigate an era characterized by rapid technological advancements, AI emerges as a potent force reshaping various fields, with education being a focal point. The intersection of literature and AI sparks a nuanced conversation, prompting a critical examination of how these two seemingly disparate realms converge to redefine educational frameworks.

Delving into the transformative potential of AI in literary education involves unraveling the layers of its influence across traditional boundaries. Literature, as a vessel for knowledge dissemination and cultural preservation, finds itself on the cusp of a technological revolution that transcends conventional pedagogical approaches. The introduction, therefore, not only emphasizes the enduring role of literature in shaping minds but also invites an exploration into how AI, as a dynamic and adaptive technological force, is poised to enhance, and in some aspects revolutionize, the ways in which literature is taught and absorbed. This sets the tone for a comprehensive examination of the subsequent sections, where the symbiosis of literature and AI unfolds in various dimensions, promising to usher in an era of unprecedented possibilities in the realm of educational exploration.

2. The Evolution of Literary Education

The evolution of literary education unfolds as a fascinating historical journey marked by the contours of traditional teaching methodologies. Historically, the conventional approaches to teaching literature were anchored in time-honored practices, such as lectures, textbooks, and class discussions, aiming for a structured and systematic dissemination of knowledge. This conventional pedagogical paradigm has deep roots in the educational landscape, shaping the experiences of countless learners over generations. References such as Mortimer J. Adler's seminal work "How to Read a Book" (1972) and Paulo Freire's "Pedagogy of the Oppressed" (1970) stand as landmarks in the exploration of traditional educational methodologies, emphasizing the foundational role of literature in shaping critical thinking and societal awareness.

However, as we scrutinize these traditional methods, this section also casts a discerning light on the challenges inherently embedded within them.

The standardized curricula prevalent in traditional literature classrooms are scrutinized through the lens of scholars such as E.D. Hirsch, who critically examined the impact of cultural literacy on educational outcomes (1988). The limited interactivity inherent in traditional approaches is explored in light of contemporary research on student engagement, with references to educational psychologists like Lev Vygotsky, whose socio-cultural theory posits the significance of interactive learning environments (1978). Moreover, renowned educational theorist Howard Gardner's work on multiple intelligences provides a framework to understand the struggle faced in catering to diverse learning styles within the confines of conventional methods (2011).

This critical examination of traditional methodologies serves as the foundational bedrock for understanding the imperatives of innovation within literature classrooms. Drawing from the seminal works of education reformers like John Dewey, who advocated for experiential and student-centered learning (1938), and the progressive education movement, this exploration not only identifies the inherent limitations of conventional approaches but also lays the groundwork for the transformative paradigm shift that Artificial Intelligence (AI) is introducing in literary education. The synthesis of historical perspectives and contemporary educational insights in this section illuminates the evolving landscape of literary education and positions it as a dynamic arena ripe for innovation and reform.

3- The Rise of AI in Education

The rise of Artificial Intelligence (AI) in education signifies a profound paradigm shift, encapsulating a broader trend that extends far beyond the confines of literature classrooms. As AI gradually becomes an integral component of modern pedagogy, its transformative influence permeates various educational disciplines, reshaping traditional teaching methodologies. This seismic shift is not merely a localized phenomenon but rather a global movement that seeks to harness the full potential of AI across diverse learning environments. The exploration of AI's influence draws upon an extensive body of literature, including notable works such as Siemens and Long's "Penetrating the Fog: Analytics in Learning and Education" (2011),

which delves into the transformative potential of data-driven decision-making processes in education.

Within the multifaceted landscape of AI applications, adaptive learning platforms emerge as key players, dynamically tailoring educational content to suit individual learning needs. The adaptability of these platforms is rooted in the capacity of AI algorithms to analyze and respond to individual learning patterns, providing a personalized educational experience. Pioneering research such as that presented by De Bra, Brusilovsky, & Houben in "Adaptive Hypermedia" (2000) underscores the evolving nature of adaptive learning systems, emphasizing the role of AI in customizing educational content to enhance overall student engagement and comprehension.

Furthermore, the discussion navigates through the intricate interplay of AI and data-driven decision-making processes within the educational sphere. References to influential studies such as Reich and Ruipérez-Valiente's "The MOOC Pivot" (2019) shed light on how data-driven insights generated by AI contribute to informed decision-making, optimizing educational efficiency on a systemic level. The synthesis of literature establishes a comprehensive understanding of the overarching impact of AI in the educational landscape, paving the way for a more nuanced exploration of its specific applications in the realm of teaching literature.

This section aims not only to acknowledge the transformative wave AI brings to education but also to emphasize the need for a deeper understanding of its implications. As the global educational community grapples with the integration of AI, this exploration serves as a foundational resource for educators, researchers, and policymakers, setting the stage for a detailed examination of the specific ways in which AI is revolutionizing the teaching of literature. The evolving discourse around AI in education draws inspiration from a diverse array of scholarly works, creating a rich tapestry of insights that informs the ongoing dialogue on the future of pedagogy in the digital age.

4- AI in Teaching Literature: A Paradigm Shift

The advent of Artificial Intelligence (AI) marks a profound paradigm shift within the traditional domain of teaching literature, ushering in a

transformative era characterized by innovative applications that redefine the learning experience. This metamorphosis is not a mere theoretical construct but a tangible evolution driven by the integration of AI-driven technologies. As literature classrooms embrace this transformation, a multitude of scholarly works contribute to our understanding of the groundbreaking changes taking place. Notable references, such as Shneiderman's "The New ABCs of Research: Achieving Breakthrough Collaborations" (2016), underscore the collaborative nature of AI applications in education, emphasizing the potential for breakthroughs in pedagogical approaches.

Central to this paradigm shift are virtual mentors, an embodiment of AI's capacity to provide personalized guidance and support. The concept of virtual mentors draws inspiration from the works of influential scholars like Vygotsky, whose socio-cultural theory, as discussed in "Mind in Society: The Development of Higher Psychological Processes" (1978), underscores the importance of social interaction and guidance in the learning process. The synthesis of these ideas culminates in the tangible application of AI as a virtual mentor, transforming how literature is taught by offering tailored assistance to students, adapting to their individual needs.

Furthermore, personalized learning algorithms emerge as key protagonists in reshaping the educational landscape. By tailoring content to individual learning styles, personalized algorithms amplify student engagement and comprehension, fostering an environment where literature is not merely taught but cohesively experienced.

The integration of AI-driven analytical tools represents another facet of this paradigm shift. Drawing from the wealth of literature on Natural Language Processing (NLP), exemplified by Manning and Schütze's "Foundations of Statistical Natural Language Processing" (1999), these tools empower educators to delve into nuanced analyses of literary works. NLP algorithms decipher intricate language nuances, offering profound insights into literary texts. This amalgamation of AI and literary analysis transcends the traditional boundaries, opening avenues for deeper comprehension and exploration.

As educators grapple with this transformative landscape, the impact of AI on reshaping the conventional approach to teaching literature becomes increasingly apparent. The dynamic synthesis of these diverse AI applications propels literature pedagogy into an adaptive and responsive realm. The referenced scholarly works serve as guiding lights, offering theoretical foundations and practical insights that navigate the uncharted territories of AI integration in literature education. This discussion not only underscores the transformative potential of AI in teaching literature but also invites educators, researchers, and policymakers to engage in an ongoing dialogue that shapes the future of literary education.

5- AI as a Literary Mentor

The intersection of Artificial Intelligence (AI) and literary education reaches a pinnacle as AI steps into the role of a literary mentor, ushering in an era of transformative possibilities in the realm of creative writing and literary analysis. This symbiotic relationship between technology and creativity is not merely speculative but is grounded in tangible applications that reshape the writing process. To understand the depth of this evolution, scholars and researchers have delved into the intricacies of AI's role as a literary mentor, offering insights that extend beyond theoretical frameworks.

At the forefront of this transformative journey is the provision of constructive feedback, a cornerstone of effective writing pedagogy. Works such as Hattie and Timperley's "The Power of Feedback" (2007) form the theoretical underpinning, emphasizing the significance of timely and targeted feedback in the learning process. AI, functioning as a literary mentor, amplifies this feedback loop by providing nuanced evaluations of written work. References to real-world applications, as seen in platforms like Open AI's GPT-3, showcase how AI-generated feedback refines writing skills, offering constructive critiques that propel literary exploration.

The literary mentorship extends beyond feedback to encompass the generation of creative suggestions. Researchers draw inspiration from cognitive science and computational creativity, as explored in Boden's "Creativity and Art: Three Roads to Surprise" (2012), to understand how AI algorithms can stimulate and augment creative thinking. AI tools, acting as

literary mentors, inject fresh perspectives into the creative writing process, inspiring writers to explore unconventional ideas and innovative narrative structures. The amalgamation of human creativity and machine-generated suggestions becomes a collaborative endeavor that transcends traditional boundaries.

Moreover, the analytical insights provided by AI mentors contribute to a deeper understanding of literary works. Natural Language Processing (NLP) algorithms, as discussed in Jurafsky and Martin's "Speech and Language Processing" (2013), enable AI to unravel the intricacies of language, enhancing the analysis of complex literary texts. This fusion of literary analysis and machine intelligence expands the horizons of literary exploration, offering students and teachers a comprehensive toolkit for dissecting and understanding the nuances of literature.

Real-world examples underscore the practical applications of AI as a literary mentor. Platforms like ProWritingAid and Grammarly leverage AI to offer grammar suggestions, style recommendations, and even genre-specific writing insights. These applications serve as testaments to the tangible impact of AI in guiding writers through the intricacies of language and storytelling.

As this section explores the multifaceted role of AI as a literary mentor, the referenced works form a robust foundation, bridging theoretical frameworks with practical applications. The evolving landscape of literary mentorship encapsulates not only the theoretical principles of effective feedback, creative stimulation, and analytical insights but also manifests in concrete examples that illuminate the transformative potential of AI in shaping the next generation of literary minds. This collaborative interplay between human creativity and AI mentorship invites educators, writers, and researchers to engage in a discourse that redefines the boundaries of literary exploration and skill development.

6- Balancing Traditional and AI-Based Approaches in Literature Pedagogy

In the dynamic landscape of education, the integration of Artificial Intelligence (AI) into literature pedagogy offers transformative possibilities. However, to harness its potential effectively, it is crucial to strike a balance

between traditional teaching methods and innovative AI applications. This integration aims not to replace time-honored practices but to enhance them, acknowledging the irreplaceable value of human interaction in the educational process. Here are key elements in achieving this delicate equilibrium:

1-Integrate AI as a Supplement, Not a Replacement

The integration of AI should be approached as a supplementary tool rather than a substitute for traditional teaching methods. Emphasizing this perspective underscores the significance of human-centric aspects such as face-to-face discussions, teacher-student interactions, and traditional literature analysis techniques. AI serves to enrich these interactions by offering additional insights and support, contributing to a holistic learning experience.

2-Provide Teacher Training

Recognizing the pivotal role of educators in shaping the learning environment, investing in comprehensive teacher training becomes imperative. Educators need to be well-versed in AI tools, understanding their capabilities and nuances. Training enables them to effectively integrate AI into their teaching methodologies, empowering teachers to interpret and utilize the data generated by these tools. This ensures that AI complements the teacher's expertise rather than overshadowing it (Picciano, 2012).

3-Foster a Hybrid Teaching Environment

The concept of a hybrid teaching environment advocates for a harmonious coexistence of traditional and AI-based methods. By implementing a hybrid approach, students benefit from exposure to both timeless literary analysis techniques and cutting-edge technological tools. This approach acknowledges the diverse learning styles of students and leverages technology to cater to individual needs, creating a well-rounded educational experience.

4-Solicit Student Feedback

In the spirit of inclusivity and responsiveness, involving students in the integration process is paramount. Soliciting feedback on the effectiveness of AI tools, understanding their preferences, and addressing any concerns they may have ensures that the integration remains student-centered. Student input becomes a guiding force in refining the approach, fostering a collaborative learning environment that values the perspectives of those at the receiving end of the educational experience.

5-Evaluate and Iterate

The dynamic nature of education demands continuous evaluation of the impact of AI integration on learning outcomes. Regular assessments, informed by feedback from both students and teachers, enable the identification of strengths and areas for improvement. This iterative process ensures that the balance between traditional and AI-based approaches remains optimal and effective, adapting to the evolving needs of both educators and learners (Hodges et al., 2020).

In essence, the effective integration of AI in literature pedagogy necessitates a thoughtful approach that preserves the essence of traditional teaching while harnessing the benefits of technological advancements. This delicate equilibrium promises a future where the synergy between human expertise and AI capabilities creates a truly transformative educational experience.

A. Emerging Technologies in Education

1-Virtual Reality (VR) and Augmented Reality (AR)

VR and AR technologies are poised to revolutionize the educational landscape by providing immersive learning experiences. Virtual field trips, simulated experiments, and interactive storytelling in virtual environments can enhance literature education. Dede (2009) suggests that immersive interfaces, such as VR and AR, have the potential to engage learners in novel and effective ways.

2-Blockchain in Education

Blockchain technology can enhance security, transparency, and credential verification in education. This has implications for academic integrity, secure record-keeping, and the development of decentralized educational platforms. Moreover, blockchain technology brings about positive changes in education, ensuring security and transparency.

3-Adaptive Learning Systems

Adaptive learning platforms use AI algorithms to personalize educational content based on individual student needs. These systems analyze student performance data to provide tailored learning experiences, potentially transforming how literature is taught. Siemens and Baker (2012) emphasize the role of adaptive learning systems in providing personalized educational experiences through the analysis of student data.

B. Potential Developments in AI for Literature Teaching

1-AI-Generated Content and Writing Assistance

AI tools can assist students in generating content and refining their writing skills. Natural Language Processing (NLP) algorithms can offer suggestions for improving literary analysis, grammar, and writing style. Brown, deSouza, Mercer, Della Pietra, & Lai (1993) discuss the potential of class-based n-gram models in natural language processing, laying the foundation for AI-generated content.

2-Sentiment Analysis for Literary Criticism

AI-driven sentiment analysis tools can be employed in literature teaching to analyze and understand the emotional tone and nuances in literary texts. This can aid students in developing a deeper understanding of the emotional dimensions of literature. Pang and Lee (2008) present a comprehensive review of opinion mining and sentiment analysis, showcasing the relevance of these approaches in understanding textual sentiments.

3-AI-Powered Intelligent Tutoring Systems (ITS)

Intelligent Tutoring Systems utilizing AI can provide personalized guidance to students in literature education. These systems can adapt to individual learning styles, offering targeted feedback and additional resources. VanLehn (2011) evaluates the effectiveness of various tutoring systems, shedding light on the potential of AI-powered Intelligent Tutoring Systems.

4-Interactive Conversational Agents

Chatbots and conversational agents can engage students in literary discussions, providing instant feedback, answering queries, and fostering interactive learning experiences in the realm of literature.

These emerging technologies and AI developments hold the potential to shape the future of literature education, offering innovative approaches to teaching and learning. As these trends evolve, educators need to stay informed and adapt their teaching strategies to harness the benefits of these technological advancements.

Conclusion

In conclusion, the dynamic exploration of the synergy between literature and Artificial Intelligence (AI) reveals a transformative era in education. Literature, a bedrock of critical thinking and empathy, stands juxtaposed against the backdrop of AI-driven innovation. The historical evolution of literary education, deeply rooted in traditional methodologies, serves as a critical foundation for understanding the imperatives of integrating AI. The paradigm shift ushered in by AI encompasses virtual mentors, personalized learning algorithms, and AI-driven analytical tools, offering tangible benefits such as tailored assistance, adaptive instruction, and enhanced literary analysis. The delicate balance between traditional and AI-based approaches emerges as a crucial consideration, emphasizing the need to integrate AI as a supplement rather than a replacement. As educators, researchers, and policymakers engage in ongoing discourse, the synthesis of theoretical foundations and practical applications creates a transformative tapestry shaping the future of literary education.

In this era of literary exploration and technological integration, the collaborative interplay between human creativity and AI capabilities holds the promise of a truly transformative educational experience. Emerging technologies in education, including Virtual Reality, Blockchain, and Adaptive Learning Systems, coupled with potential developments in AI for literature teaching, offer unprecedented possibilities. The ongoing dialogue invites stakeholders to navigate the evolving landscape, ensuring that the integration of AI in literature pedagogy remains adaptive, responsive, and student-centered. As the synthesis of theoretical principles and practical applications continues, educators and researchers play a pivotal role in shaping the future of literary education, embracing the innovative potential brought forth by the dynamic intersection of literature and AI.

References

1. Adler, M. J., & Van Doren, C. (1972). *"How to Read a Book."* Touchstone.
2. Boden, M. A. (2012). *"Creativity and Art: Three Roads to Surprise."* Oxford University Press.
3. Brown, P. F., deSouza, P. V., Mercer, R. L., Della Pietra, V. J., & Lai, J. C. (1993). *Class-based n-gram models of natural language.* *Computational Linguistics*, 18(4), 467–479.
4. De Bra, P., Brusilovsky, P., & Houben, G.-J. (2000). *"Adaptive Hypermedia: From Systems to Framework."* *ACM Computing Surveys*, 31(4), 128–137. DOI:[10.1145/345966.345996](https://doi.org/10.1145/345966.345996)
5. Dede, C. (2009). *Immersive interfaces for engagement and learning.* *Science*, 323(5910), 66-69.
6. Dewey, J. (1938). *"Experience and Education."* United States: Kappa Delta Pi.
7. Freire, P. (1970). *"Pedagogy of the Oppressed."* New York, London: Continuum.
8. Gardner, H. (2011). *"Frames of Mind: The Theory of Multiple Intelligences."* Basic Books.
9. Hattie, J., & Timperley, H. (2007). *"The Power of Feedback."* *Review of Educational Research*, 77(1), 81–112. DOI: [10.3102/003465430298487](https://doi.org/10.3102/003465430298487)



10. Hirsch, E. D. (1988). "Cultural Literacy: What Every American Needs to Know." Vintage.
11. Hodges, C., Moore, S., Lockee, B., Trust, T., & Bond, A. (2020). *The difference between emergency remote teaching and online learning.* *Educause Review*, 27.
12. Jurafsky, D., & Martin, J. H. (2013). "Speech and Language Processing." Pearson.
13. Manning, C. D., & Schütze, H. (1999). "Foundations of Statistical Natural Language Processing." MIT Press.
14. Pang, B., & Lee, L. (2008). *Opinion mining and sentiment analysis.* *Foundations and Trends in Information Retrieval*, 2(1–2), 1-135.
15. Picciano, A. G. (2012). *The evolution of big data and learning analytics in American higher education.* *Journal of Asynchronous Learning Networks*, 16(3), 9-20.
16. Reich, J., & Ruipérez-Valiente, J. A. (2019). "The MOOC Pivot." *Science*, 363(6423), 130–131. DOI: [10.1126/science.aav7958](https://doi.org/10.1126/science.aav7958)
17. Shneiderman, B. (2016). "The New ABCs of Research: Achieving Breakthrough Collaborations." Oxford University Press.
18. Siemens, G., & Long, P. (2011). "Penetrating the Fog: Analytics in Learning and Education." *Educause Review*. Retrieved from <https://er.educause.edu/articles/2011/9/penetrating-the-fog-analytics-in-learning-and-education>
19. Siemens, G., & Baker, R. S. J. d. (2012). *Learning analytics and educational data mining: Towards communication and collaboration.* In *Proceedings of the 2nd International Conference on Learning Analytics and Knowledge* (pp. 252-254). DOI: [10.1145/2330601.2330661](https://doi.org/10.1145/2330601.2330661)
20. VanLehn, K. (2011). *The relative effectiveness of human tutoring, intelligent tutoring systems, and other tutoring systems.* *Educational Psychologist*, 46(4), 197-221.
21. Vygotsky, L. S. (1978). "Mind in Society: The Development of Higher Psychological Processes." Harvard University Press.



The Role of Artificial Intelligence in Enhancing the Processes of Learning and Teaching

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Abstract

In recent years, the world has witnessed accelerated development and an increasing application of artificial intelligence systems. The effects of this phenomenon have become evident in scientific fields in general and, more specifically, in educational domains. This places significant responsibilities on decision-makers and organizations to evolve their policies, approaches, and strategies to align with the data of the contemporary artificial revolution. The focus of this research is to underscore the importance of artificial intelligence in enhancing learning and teaching processes. The study concludes that investing in artificial intelligence is crucial, as it serves as an effective foundation for strengthening the role of teachers, improving learner performance, and enhancing the efficiency and effectiveness of the teaching and learning processes.

Keywords: artificial intelligence, learning, education, reinforcement, development.

Introduction:

Education, at its various stages, tends to integrate modern technologies and practices to enhance the overall educational experience. Learning management systems, video-assisted learning, and augmented virtual reality are considered as examples of how technology can improve student engagement and educational planning. Currently, artificial intelligence is utilized in education in various ways, from chatbots providing support to students to personalized learning algorithms adapting to individual needs. Artificial intelligence tools are also employed for administrative tasks, such as grading assignments, providing feedback, and finalizing grades. Moreover,



artificial intelligence is utilized to analyze large datasets, identifying patterns and insights that can inform the development of new educational strategies and policies.

Problem:

Building on the above statement, the main question posed in the current paper is:

Is artificial intelligence an effective foundation for improving teaching and learning processes?

Objectives of the Study:

This study aims to:

1. Present the term and concept of artificial intelligence from scientific and educational perspectives.
2. Highlight the role of artificial intelligence in improving the quality of education.

Importance of the Study:

The role of artificial intelligence in enhancing the quality of education and learning is critically necessary and urgent. Considering the challenges faced by educational programs in education systems and the promising opportunities that artificial intelligence offers to improve education and its quality.

Study Approach:

For this research, we employed inductive and analytical methodologies to familiarize ourselves with the aspects and components of the study, working on its analysis in a coordinated and systematic manner.

Study Themes:

The study is divided into two main axes:

1. Conceptual insight into the term artificial intelligence.
2. The role of artificial intelligence in improving the quality of education.

The First Axis: Conceptual Insight into the Term Artificial Intelligence

Technological developments have given rise to new cognitive sciences. With its increasing modern use, applications are being explored in various specialized areas. Among modern cognitive sciences, artificial intelligence stands out as a technical discipline based on the cross-fertilization and intersection of several specializations and sciences, such as mathematics, engineering, logic, computer science, and applied linguistics. These disciplines seek to understand the nature of human intelligence by developing computer programs capable of simulating human behavior and providing intelligent applications. On this basis, artificial intelligence has become employed in all fields, with education being a pivotal field where artificial intelligence is invested to enhance the education system and foster the development and improvement of the educational process.

1. Artificial Intelligence: The Term and Concept:

Artificial intelligence is a branch of computer science and one of the most crucial elements in the current technology industry. The term comprises two words: "intelligence" and "artificial." Intelligence is defined as the ability to comprehend new and changing circumstances or situations, encompassing terms such as perception, understanding, and learning. The term "artificial" is derived from the verb "make" or "create," applying to anything resulting from the activity or action that creates and shapes things, distinct from things that exist naturally without human intervention. Consequently, artificial intelligence is the intelligence crafted or manufactured by a person in a machine or computer (Ghālib, 2012, p 114).

The term "artificial intelligence" includes programs and systems that mimic intellectual aspects of humans, such as discovering meanings and the ability to think and learn from previous experiences. Al-Sumaidaie defines it as "the ability of a machine to perform tasks required by human intelligence," such as logical reproduction, learning, and the ability to modify (Al-Şumaydi‘ī, 2009, p 321).

As defined by (Mūsá, 2019), it is a system encompassing intelligent programs and devices aimed at constructing machines capable of performing

complex human tasks. These machines are designed to imitate the human mind in learning, thinking, decision-making, and problem-solving. The results of this study are then used to develop intelligent systems and programs.

2. Intelligence and Quality Education:

The role of artistic intelligence in enhancing the quality of education and learning is of paramount, necessary, and urgent importance. By comparing the number of challenges faced by programs designed in educational systems with the opportunities presented by advanced intelligence, which can be utilized to improve education and its quality, they become evident on the path:

2.1. Learning Opportunities:

The report launched by UNESCO, "Education for All 2030," indicates that the use of technology and artistic intelligence in education can offer and contribute to application opportunities (UNESCO: 2016).

2.2 Personalization of Education:

Artificial intelligence can provide unique and personalized education to create a function for individuals and their children. It can be used to provide different educational material and adapt it for other students, such as those who prefer experiential learning (Kulkarni: 2000, p 21).

2.3. Offering Sustainable and Continuous Education:

Artificial intelligence can offer sustainable and continuous education to students, informing them in preferred circumstances, such as conflicts or natural disasters. Technologies used in remote applications and intelligence are often employed to provide application opportunities for children living in poor and deserving areas (Inamdar & Deshmukh: 2021, p 35).

4.2. Improving Evaluation:

Artificial intelligence can enhance evaluation in education by analyzing educational data and providing direct feedback and immediate assessments to students and teachers. This can help identify individuals' strengths and

capabilities and provide individualized guidance for improvement (Baker & Inventado2014:, p 46).

5.2. Developing Expertise:

Artificial intelligence can contribute to the development of expertise and provide educational resources and external analyses to develop teaching methods and guide education (Brynjolfsson & McAfee: 2014, p 24).

The Second Axis: The Role of Artificial Intelligence in Improving the Quality of Education

Applications of artificial intelligence can potentially shape the future of contemporary education due to their significant benefits. It is no longer just a science or algorithms; rather, it represents an industrial revolution. Consequently, the increasing use of artificial intelligence in the education sector aligns with the growing collaboration between governments and the escalating investments in response to the demands of contemporary times.

Artificial intelligence applications can alleviate the workload of management systems, offering high-quality service and transforming them into electronic systems based on artificial intelligence. This transformation aids in making informed administrative decisions, optimizing the distribution of courses and classes to teachers based on their abilities and orientations, and identifying and promoting gifted students as well as those facing learning difficulties. This is achieved by providing specialized programs, monitoring the learning progress of each student, and facilitating direct communication with them.

1. Educational Applications of Artificial Intelligence:

Artificial intelligence applications designed to enhance the educational process include:

- Educational Software Systems: These systems contain an artificial intelligence component with the mission to monitor and control students' work, guiding them by collecting information on each student's performance (Lutfi, 2019).

- **Computerized Educational Systems:** These systems have independent databases incorporating knowledge bases on educational content and strategies (Alrtymy, 2009).

- **Intelligent Learning Systems:** These systems serve as a bridge between the behavioral style of computerized learning and the cognitive style. They are products of research in artificial intelligence, encompassing models about the domain to be learned, components on students, and a component on the expert teacher in the field. The effectiveness of the education system, regardless of its type, should be evaluated based on knowledge acquired rather than what was taught (Alrtymy, 2009). Artificial intelligence technology involves four basic models (AI-badw: 2017, p 349-350):

A. The domain model, characterized by:

1. The source for generating learning content, explanations, and examples related to the subject or curriculum taught by the intelligent education system.

2. The source for generating problems and questions presented to the student in the form of exercises or tests, which the student must solve.

3. A source for generating typical solutions and answers related to the learning topic. This includes defining and clarifying correct behaviors, steps, and paths that can be followed in these solutions and answers.

4. A standard by which the student's response and performance can be evaluated and corrected. This involves evaluating not only the final result achieved by the student but also all the steps taken to reach the solution. This is done by comparing the student's answer with the correct answer generated by the education system.

5. The source of explanations and justifications needed to address two essential questions in learning: "why" and "how." This means explaining why a particular method or strategy was used to resolve a problem or question and how this solution was found.

B. The educational model and its characteristics include:

1. Control among the other models that constitute the intelligent education system.

2. Making instructional decisions for the student, such as determining the appropriate teaching method and strategy.

3. Reducing the gap between expert knowledge found in the domain model and general knowledge.

C. The student model and its features include:

1. Determining the student's current cognitive state and their level of progress in learning a subject.

2. Saving and recording the student's learning progress in the system, along with the nature of the errors made by the student during learning.

3. Providing measurements and indicators of the student's learning behavior on an ongoing basis.

4. Identifying and distinguishing student misconceptions and missing concepts.

5. Determining the student's performance in answering the questions presented to them by the system in terms of time and degree of accuracy.

D. The interaction interface model and its characteristics include:

1. Connecting the student and the intelligent education system on one hand, and the parts and components of the program on the other hand.

2. Giving the intelligent education system the capability of a mixed and two-way dialogue between itself and the student.

3. Integrating and involving the student in the learning process through attractive methods and means of presentation. This involves flexibility and diversity in presenting educational material in a manner suited to the individuality and requirements of the student, and by interacting with them in the natural language they understand.

4. Providing various methods and models of questions and problems, along with ways to answer them in a scientific reality."

1.1. Virtual Reality and Augmented Reality Technology

A. Virtual Reality:

Virtual reality technology has the capacity to foster student-centered self-learning by immersing them in a world that is closer to realism and more interactive. It enables learners to move and walk around scenes, aiding in the development of visualization skills and the understanding of complex

scientific data. This is particularly crucial in science subjects. An essential feature of virtual reality is its ability to handle reusable learning objects (RLO) (Āl Masīrī, 2017), such as Learning Management Systems (LMS). LMS is a digital system specifically designed to manage and provide electronic courses, facilitating collaborative work between teachers and students. This system oversees various aspects through the implementation of learning management. Learning management systems deliver content to learners without requiring content creation tools.

B. Augmented Reality:

Augmented reality aims to create a system where it is challenging to distinguish between the real world and the additions made through augmented reality technology. When individuals use this technology to observe their surroundings, objects in that environment are enhanced with information seamlessly integrated into the observed image (Awbāy, 2015). Among the noteworthy models of augmented reality technology are:

Classroom Apps: These applications enable users to create and integrate their augmented reality experiences using personal or school devices conveniently.

Homework Support with Explanations: These apps support learners during homework, providing explanations and assistance when students encounter challenges.

2. Artificial Intelligence and Development of the Educational Process

Artificial intelligence enables the embodiment of teachers' expertise by simplifying basic educational tasks and interfaces in the educational field (Makkāwī, 2018, pp. 23-24):

A. Expert Professors Efficiency:

In cases where universities lack expert professors, artificial intelligence embodying professors' expertise can enhance efficiency, making high-quality online learning programs available to lower-quality faculty, thus improving students' academic performance.

B. Meeting Diverse Educational Needs:

Expert teachers often struggle to meet the diverse needs of their students. Artificial intelligence provides aspects of core content and teaching skills, offering teachers better evaluation data.

C. Developing Important Skills:

Artificial intelligence embodying professors' expertise plays a crucial role in helping students develop not only academic content mastery but also essential life skills.

D. Streamlining Teaching Innovations:

Expert teachers, considered a valuable resource in the education system, need innovations and distinct teaching aspects streamlined by artificial intelligence to ensure every student receives an excellent education.

E. Alleviating Administrative Burden:

Applications of artificial intelligence allow professors to alleviate administrative burdens, such as grading exams and evaluating homework, freeing up time for research and the development of academic content.

Artificial intelligence cannot fulfill its function in education without the necessary infrastructure, including high-speed and widely available internet coverage at a reasonable cost. While these conditions are met in many economically developed countries, several developing countries still struggle to fulfill these prerequisites. The success and effectiveness of using artificial intelligence in education also depend on the availability of digital equipment and the training of specialized technical personnel, in addition to the need to secure and protect the confidentiality of processed data.

Conclusion:

Artificial intelligence stands out as one of the most crucial emerging technologies, significantly impacting the education system by endowing it with vast potential for social good and the achievement of Sustainable Development Goals. This necessitates policymakers and relevant bodies in education systems to refine their policies, programs, and strategies to align

with the dynamics of the contemporary artificial revolution and support education enhanced by artificial intelligence technologies. The study yielded several results:

1. **Revolutionizing Education:** Artificial intelligence holds the potential to revolutionize education. From personalized learning algorithms to virtual and augmented reality, AI-powered tools and technologies are reshaping the learning experience for students in unprecedented ways.

2. **Personalized Learning Experience:** Artificial intelligence can bring a myriad of benefits to education, with one of the most significant being the ability to personalize the learning experience for each student. By analyzing performance data and student preferences, teachers can use AI to tailor lesson plans and assessments, matching each student's unique strengths and weaknesses. Additionally, AI can streamline administrative tasks like grading, allowing teachers more time for critical aspects of teaching.

3. **Enhanced Learning Experience:** AI-based tools and technologies have the potential to enhance the learning experience in various ways. Virtual and augmented reality can make learning more motivating and interactive, while chatbots and other AI-based tools can provide support to students. Moreover, AI can be employed to create personalized quizzes and games, making the interaction with the material more enjoyable.

4. **Exciting Potential of Personalized Learning:** One of the most exciting potential benefits of AI in education is personalized learning. Through analyzing data related to student performance and preferences, AI assists teachers in crafting personalized lesson plans and assessments that cater to each student's unique strengths and weaknesses. This results in improved engagement and student motivation, ultimately leading to better academic outcomes.

5. **Investment in AI:** Investment in artificial intelligence constitutes an effective foundation that works towards improving, strengthening, and developing teaching and learning processes. Therefore, it should be integrated into future plans, studies, and overall development. It is imperative for researchers and developers to continue exploring the potential of artificial intelligence in education and addressing emerging challenges as technology advances and becomes increasingly integrated into the education system.

References

- Baker, R. S., & Inventado, P. S. (2014). "Educational Data Mining and Learning Analytics".
- Brynjolfsson, E., & McAfee, A. (2014). "The Second Machine Age: Work, Progress, and Prosperity in a Time of Brilliant Technologies".
- Inamdar, S., & Deshmukh, A. (2021). "Artificial Intelligence: Transforming Education in Developing Countries".
- Kulkarni, C. et al. (2020). "Artificial Intelligence (AI) in Education.
- UNESCO. (2016). "Education for All 2030".
- Al-badw Amal Muḥammad 'Abd Allāh. (2017). *al-ta'allum al-dhakī wa-'alāqatuhu bāltfkyr al-ibdā'ī wa-adawātuhu al-akthar astkhdāmā min qabla Mu'allimī al-riyādīyāt fī Madāris al-ta'allum al-dhakī*, Majallat al-Jāmi'ah al-Islāmīyah lil-Dirāsāt al-Tarbawīyah wa-al-nafsīyah, almjld2, al'dd2, al-Jāmi'ah al-Islāmīyah, Ghazzah, Filasṭīn.
- Alrtymy Muḥammad Abū al-Qāsīm. (2009). *al-dhakā' alāṣṭnā'y fī al-Ta'līm, nazm al-Ta'līm al-dhakīyah, al-Jam'īyah al-Lībīyah lldhkā' al-ṣinā'ī, Jāmi'at al-sābi' min Abrīl, al-Zāwīyah, Lībīyā.*
- Al-Ṣumaydi 'Ibrāhīm. (2009). *al-dhakā' alāṣṭnā'y wa-al-nuzum alkhbyrh. Dār al-Jāmi'ah lil-Nashr, al-Qāhirah, Miṣr.*
- Ghālib Yāsīn Sa'd. (2012). *Asāsīyāt nazm al-ma'lūmāt al-Idārīyah wa-Tiknūlūjiyā al-ma'lūmāt, Dār al-Manāhij lil-Nashr wa-al-Tawzī', 'Ammān, al-Urdun.*
- Makkāwī Marām 'Abd al-Raḥmān. (2018). *al-dhakā' alāṣṭnā'y 'alā abwāb al-Ta'līm, Majallat al-qāfīlah, al-mujallad 67, al-'adad 06, Arāmkū, al-Mamlakah al-'Arabīyah al-Sa'ūdīyah.*
- Mūsā 'Abd Allāh. (2019). *al-dhakā' alāṣṭnā'y Thawrat fī Tiqniyāt al-'aṣr. Miṣr, al-Majmū'ah Al-'Arabīyah lil-Tadrīb wa-al-Nashr.*
- Āl Masīrī Muḥammad 'Alī. (2017). *anẓimat Idārat al-ta'allum wa-anẓimat Idārat al-muḥtawā, Mawqī' ta'līmī jadīd*
<https://www.new-educ.com/category/terms/page/9>
- Awbāy al-Ḥasan. (2015). *mā hiya Taqnīyat al-wāqī' al-mu'azzaz? wa-mā hiya taṭbīqātuhā fī al-Ta'līm?*
<https://www.new-educ.com/category/ideas>
- Luṭfī Khadījah. (2019). *Kayfa yastaṭī'a al-dhakā' alāṣṭnā'y al-ta'thīr 'alā al-Ta'līm :<https://www.new-educ.com/category/studies>*



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