Digital Transformation and AI Applications in Analyzing the Play *A Journey in a Coma*

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Abstract

This study aims to explore the concepts of digital transformation and the mechanisms of artificial intelligence in the present era. All AI programs serve as a bridge between computational technologies and their practical applications in various fields of science, particularly focusing on the humanities. Given the significance of the idea that digital transformation and AI technologies primarily aim to simulate human intelligence, perform its cognitive functions, and execute its mental processes at the required speed, this informational issue has become a contemporary challenge among researchers. This topic has gained special importance when we attempt to apply its research findings to virtual creative art, with a specific focus on dramatic art. In this critical analysis, we follow a semiotic approach. From this perspective, the subject of our study addresses: "Digital Transformation and AI Applications in Analyzing the Play *A Journey in a Coma* in which the author JazilaMimshawi adopted some artificial intelligence techniques, attempting to simulate historical figures with virtual dramatic characters, and relying on the element of time by connecting the past with the future to keep pace with contemporary developments.

Keywords: A Journey in a Coma, Artificial Intelligence, automated media, text analysis, theatrical discourse

ملخص

تهدف هذه الدّراسة إلى استكشاف مفاهيم التّحول الرقمي وآليات الذّكاء الاصطناعي في العصر الحاضر، إذ أنّ كلّ برامج الذّكاء الاصطناعي تعتبر حلقة وصل بين وسائل الإعلام الآلي وتطبيقاته العملية في مختلف مجالات العلوم ونخصّ بالبحث العلوم الإنسانيةبمختلف مجالاتها. وانطلاقا من أهمية الفكرة الموحيّة على أنّ التحوّل الرّقمي وتقنيّات الذّكاء الاصطناعي تهدف بالدّرجة الأولى إلى محاكاة الذّكاء البشري ومحاولة أداء وظائفه الإدراكية وإنجاز عملياته العقلية وفق السرعة المطلوبة، وعلى هذا الأساس أصبحت هذه القضية المعلوماتية موضوعا إشكاليا وتحديّا معاصراً بين الباحثين. فقد اكتسب هذا الموضوع المعلوماتي أهمية خاصّة عندما نحاول تطبيق نتائج أبحاثه على الفنّ الإبداعي الافتراضي، وذلك مع التّركيز بشكل خاص على الفنّ الدّرامي على وجه الخصوص، ونتبع في هذا التّحليل النّقدي المنهج السيميائي. ومن هذا المنظور جاء موضوع دراستنا يعالج : "التحول الرقمي وتطبيقات الذكاء الاصطناعي في تحليل مسرحية "رحلة في غيبوبة"، والتّي اتّخذت فيه الكاتبة ممشاوي جزيلة جزئية من تقنيّات الذّكاء الاصطناعي محاولة فيه محاكاة شخصيّات تاريخية بأخرى درامية افتراضية، والاستناد على مكوّن الزّمن بربط الماضي بالمستقبل لمواكبة تطوّرات العصر.

الكلمات المفتاحية: سفر في غيبوبة،الذّكاء الاصطناعي، إعلام آلي،تحليل نص، الخطاب الدرامي

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Introduction

The modern era has been associated with technological development and tight digital applications of operating systems until it was called the age of speed, in which the world became a small village, and the fields of its uses varied in their technological and biological dimension, but the multiplicity of its uses and reliance on its applications. To keep pace with technological development, we find that it did not remain linked to these fields only, but its use infiltrated the field of human and social sciences, by changing the study sample and analyzing it, and adapting artificial intelligence techniques to scientific and technological research by different means within the fields of human knowledge.

As Artificial Intelligence (AI) continues to advance in our contemporary world, its capabilities are increasingly influencing all areas of life, including those concerned with understanding humans within their societies. Today, the fields of humanities are witnessing a significant transformation thanks to the smart tools and techniques provided by artificial intelligence. This field, which historically relied on traditional methods of text analysis and the study of different cultures, now benefits from AI's ability to process and analyze large quantities of data with precision. By using advanced algorithms in natural language processing, machine learning, and text generation, researchers can discover new patterns, interpret information in innovative ways, and explore new dimensions of cultural heritage and human creativity. These applications open new horizons for the humanities, allowing for a more precise understanding of human phenomena.

Undoubtedly, the field of humanities in Algeria has kept pace with contemporary scientific and technological transformations to benefit from their applications in light of the fourth industrial revolution and the digitization of social, literary and other research ,These efforts aim to generalize precise results. When attempting to apply them to the world of literature in general, and prose in particular, one can utilize them to analyze creative texts.

From these literary texts, we select the theatrical discourse, in which the authors sought to rely on interconnected dramatic elements, most notably the dramatic characters that give the theatrical performances a social awareness and ideological depth.

This study aims to investigate a central question: how do Algerian playwrights use dramatic forms while integrating artificial intelligence techniques and constructing narratives with virtual characters that drive the events? It also highlights how the writer uses the concept of time as a modern tool. The importance of this analysis lies in its focus on using a part of digital transformation and reliance on artificial intelligence applications in Algerian theater, where theater is considered a vital space for expressing reality and keeping up with its changes. The study also provides a new critical perspective that contributes to the enhancement of the fourth art in Arabic literature.

From here, we can define a set of research objectives, which include determining how the suggestions from artificial intelligence applications impact the formation of characters and the development of events within theatrical discourse. Additionally, the study aims to conduct a critical analysis of the formation of these virtual characters in the text and their effect on the development of the plot through dramatic dialogue. This is done to reveal the components of the discourse as a meaningful linguistic unit, relying on elements of semiotic critical methodology that analyze the structure of the text to uncover its latent meanings.

This study will also address some questions, including:

- What is the appropriate critical approach for applying artificial intelligence techniques to literary texts?
- What are the possible ways to use artificial intelligence techniques in developing the dramatic structure of a play?
- To what extent do Algerian theater texts benefit from artificial intelligence Mechanisms?
- How can artificial intelligence techniques contribute to shaping themes for dramatic structures and suggesting virtual characters that enrich the events of a theatrical text?

Literature Review

The study in which the researcher focused on how to use artificial intelligence applications in the fields of humanities and social sciences in general, and in the fields of literature in particular. For example, research on artificial intelligence in the service of the Arabic language includes "improving the process of writing and editing texts in Arabic, which contributes to facilitating communication and understanding among users... to contribute to the development and improvement of the quality of content in Arabic and increase its effective use"(Boudayar, 2024, p. 60). This use is related to linguistic phenomena based on the "intelligent writing assistant application"(p. 80).

Among the recent studies that address the topics of artificial intelligence and its impact on artistic studies is the importance of "integrating the digital domain into other diverse arts, such as those included in cinematic art as a form that aligns with the developments of the age"(Saidi, 2024, p. 90). However, such a study focused on the cinematic production aspect and the use of digital media in its latest developments

As for the study presented, it focuses on the Algerian theatrical experience and how it incorporates artificial intelligence techniques in shaping the dramatic discourse of the play. It connects this with contemporary critical perspectives to explore the essence of the text's meanings, while also utilizing temporal retrieval techniques.

Key Concepts About Intelligence

What can be observed in this era is the rapid technological advancement, which has made discussions about the use of artificial intelligence technologies prominent due to their ability to analyze contemporary issues and predict outcomes. To clarify the concepts of intelligence as a preliminary step, it is necessary to explore the cognitive dimension of human mental capacity, as it is the human mind that provides technological development with a vast array of new cognitive ideas.

Some researchers and scholars, particularly in the field of psychology, have explored the concept of mental ability and its subdivisions. Among these researchers is Badi' al-Qasha'ileh, who asserts that mental ability is an attempt to "use past experiences to solve a new situation"(Al-Qashaa'la, 2021, p. 07). Badi links past successful experiences with the application of their results in future endeavors.

From the abstract aspects of theoretical sciences and the attempt to simulate virtual experiences, mental intelligence is "the ability to use abstract thinking to solve problems"(Al-Qashaa'la, 2021, p. 08). Since abstract sciences require the use of abstract thinking to address problem-solving hypotheses, Therefore, we can define a smart person as "someone who is quick in their thinking"(Al-Qashaa'la, 2021, p. 15), having undergone mental training processes to become "capable of performing challenging cognitive tasks"(Ben Dhamane, 2015, p. 33) after a period of cognitive development.

In a foreign language, the term for mental intelligence is "Intelligence, which is derived from the Latin word coined by the Roman philosopher Cicero and means understanding and wisdom"(Al-Qashaa'la, 2021, p. 18). The ability to shift away from emotion is an aspect of intelligence, as "the attempt to adapt to social values and resist emotional impulses"(Al-Qashaa'la, 2021, p. 19), is one of the characteristics of intelligence.

From here, we can point to the beginning of researchers' and scholars' interest in the field of intelligence as a mental force embedded in the human mind, its potential for measurement, and the exploration of its aspects. It can be stated that "Alfred Binet and Simon were pioneers who laid the groundwork for the development of the mental measurement movement in the early 20th century, which was later advanced by others and applied in various fields such as education, the military, and industry" (Al-Qashaa'la, 2021, pp. 17-18), and other fields. The researcher Wadi' al-Qasha'ileh indicates that the mental measurement movement was later applied to a range of educational and instructional research areas for students, as well as to military systems. With technological advancements in various fields, measurement mechanisms have also been applied to the industrial sector.

After presenting these concepts about artificial intelligence, we can reach a general conclusion that intelligence is a mental process bestowed by God upon humans as a distinguishing feature. It varies according to the nature of how this intelligence is employed and developed, and it represents what distinguishes humans through their ability for quick understanding and cognitive interaction", just as the human brain has a natural hormone that regulates brain tissue, AI is programmed with automated techniques to produce results with quick responsiveness.

The Artificial Neural Network and Artificial Intelligence

There is no doubt that scientific research is the foundation of progress in all fields of knowledge, playing a vital role in shaping human and cultural civilization and keeping pace with global scientific advancements. Consequently, the quest began to find a counterpart to human intelligence and to replicate its actions and cognitive processes, through the application of simplified models based on the embodiment of a neural network that resembles the neurons in the human brain.

Kevin Warwick, a Professor of Cybernetics at the University of Reading in the UK, later conducted a study to explore the interaction between a computer system and the human nervous system. He attempted to implant an electronic chip in his arm and connect it wirelessly to a computer, to transmit brain signals to the computer to convert them into actions. As a result, doors would open and lights would turn on simply as he walked around the university"(Magdy, 2020, p. 06). As an attempt to infer the relationship of idea convergence in the human mind and activate the role of machines to achieve precise numerical results.

It is also worth noting that the term 'artificial intelligence' and the concept itself are attributed to researcher John McCarthy. "In the mid-twentieth century, AI research experienced significant progress and the field of machine control advanced by leveraging developments in digital computers. Numerous attempts and experiments eventually led to the broader application of artificial intelligence, which now encompasses medical diagnosis, data collection, and many other diverse fields where machines have taken over routine tasks previously performed by humans"(Magdy, 2020, p. 06), where researchers focused their studies on how to endow machines with human-like intelligence.

AI as Karam (2009) suggested from her perspective, is defined as "the variables we know have shaped the experience of human thinking in the present era with technological advancements. This transition has moved humanity into a new state defined by the requirements of the technological age. Therefore, it is legitimate for individuals in each historical era to express themselves through the available means and tools, as these means are not merely intermediaries but represent the thinking of that particular era" (pp. 13-14). Similarly, AI can be seen as a mimicry of human intelligence, achieved through programming machines with systems that simulate human behavior and thought processes to produce accurate outcomes.

AI "is a composite concept aimed at producing "a set of successful technological methods to transform the way we live our lives"(Play, 2008, p. 09). In an attempt to clarify the term 'artificial intelligence' from a scientific conceptual perspective and to standardize its meanings for everyday use, it can be described as the field of study focused on "creating machines that perform actions considered intelligent by humans "(Ben Abdel Nour, 2005, p. 07). These are research-driven behaviors programmed to generate responses based on previous processes and newly obtained results and to connect them with current research needs and requirements.

The Mechanism of Artificial Intelligence and Digital Transformation

The mechanism of AI:

> refers to the ability of machines, such as computers, to acquire intelligence and think logically in a manner similar to human thinking. This is achieved through programs that are installed on the computer to help it utilize data and reason logically to achieve the desired outcomes, as well as to understand human language (speech) or translate large volumes of data, whether written or spoken. (Magdy, 2020, p. 05)

Through a computer system, the mechanism of AIvaries leverages the data input by the user in the computer's language and processes it accordingly.

When attempting to grasp the techniques of AI, we find that it relies on contemporary and modern digital technological mediums, with systems designed to manage these technologies to assist and enhance human activities. AI involves a series of automated and technical processes aimed at developing these processes through computer media and programming them to perform somewhat complex informational tasks that require time to "develop complex software programs capable of performing challenging cognitive" (Dhamane, 2015, p. 33). In this context, researcher Ben Duhman Omar connects AI to solving complex processes with extraordinary speed.

Considering digital media as a term for digital devices, it is programmed with high computational capabilities. It operates according to a sequence of input data systems and processes them within a short timeframe to export this processed data and produce studied outputs. "Digital computers with high computational capabilities are characterized by their general-purpose use, with the ability to receive digital data as inputs, process them using algorithms, and export digital data outputs"(Al-Arabi, 2019, p. 25). These processes follow a series of organized computational operations.

Modern contemporary studies have emphasized the necessity of digitizing various private sectors, including the educational sector and digitizing literature by directly linking it to digital media. It has become a scientific necessity to keep pace with current developments and

leverage digital technology, which also relies on clear linguistic data to bridge concepts. Thus, "digital literature is more closely connected to digital media, transforming the literary text into digital realms and transitioning it from the world of paper to the electronic screen"(Hamdaw, 2016, p. 16).

Digital transformation has led to the imposition of various advanced artificial intelligence technologies, enabling and facilitating scientific research services in various fields. This makes it easier to enter the modern world and its new challenges by quickly achieving more accurate results and a more efficient experience. It has thus provided an opportunity to explore research areas and open up to diverse perspectives that allow engagement with current advancements.

Among the fields of humanities that have benefited from the applications of artificial intelligence is the art of theater, which is one of the most prominent human arts and the closest to the soul due to its ability to simulate the reality of social life. Theater is distinguished from other artistic texts by the characteristic of representation and the embodiment of human thoughts and aspirations. It carries, amidst the dramatization of events, a range of conflicting visions and ideologies across time and place. It is the most liberated prose text among neighboring prose arts, as it is a dual-impact art on the receiving audience; it was an idea before being embodied on the stage, and a text in ink on paper before taking its dramatic form.

The Algerian theatrical text is also part of the corpus of Algerian literature, which has portrayed historical, social, and cultural circumstances in an artistic form. It has kept pace, in word and deed, with the reality of Algerian society in particular and the Arab nation in general. In expressing these circumstances, it has kept up with the developments of the era, including technological means, media tools, and the adoption of artificial intelligence techniques, whether in the stage of producing creative texts as an initial phase for the writer, or from the perspective of the critic who employs analytical procedures at the level of text structures.

The model before us is embodied in the theatrical discourse *Journey in a Coma* by its author MamchaouiJazila, who presents a theatrical vision that simulates Arab reality on one hand and Islamic reality on the other. She also addresses the experience of youth and the utilitarian and active energies they possess for themselves and others. In her experience, she proposes artificial intelligence and its application ChatGPT, as a suggestion for virtual characters parallel to historical figures. The discourse also invokes the flow of time as a formal component for analyzing the text.

Analysis

Artificial Intelligence and the Development of Character Roles in Virtual Theater

It is noticeable that the initial reading of literary works does not bear fruit until their features are illuminated by a creative reader or a distinguished critic. This is because a literary phenomenon does not reach full maturity until the hidden meanings within it are uncovered and what lies between the lines is explored. This necessitates the application of critical tools to the literary discourse, considering it a textual structure with its specificities. In analyzing the text at hand, *Journey in a Coma*, we have relied on the semiotic approach, which refers to "studies primarily concerned with analyzing texts"(Chandler, 2008, p. 448) from within. Semiotics is the science that aims to study the linguistic sign, as it is "the science of sign systems"(Guiraud, 1984, p. 95).

Since the totality of characters in every literary work is indispensable to the creator, as the character is a fundamental component of literary works, Paul Valéry states that "one must deal with the psychology of the characters and their verbal conditions"(Hamon, 2013, p. 27). When we turn our attention to the theatrical scenes, we find that they are the main axis that drives the events within this discourse. In this context, MasoudJoubran addresses its concept: "The person is the sum of the physical, mental, and emotional characteristics that distinguish a specific human being"(Jibran, 1986, p. 859). In the text, the character is considered a semantic unit. Based on this, the writer JazilaMemchaoui has built her theatrical discourse on the hypothesis of simulating historical characters and replacing them with fictional ones, where the application "ChatGPT" becomes a writer that introduces characters simulating the current reality as a means of integrating artificial intelligence applications into the world of literature and benefiting from its various techniques.

Summarizing the Theatrical Discourse in Travel in a Coma

The events of the theatrical discourse *Travel in a Coma* by the Algerian writer address a social issue, depicting the reality of the youth in the contemporary Arab Muslim world. It portrays the condition of young people lost between the problems of illiteracy and ignorance of scientific matters and the decline in pursuing sciences and leading in various fields. This stands in contrast to the legacy left by their ancestors, which includes various philosophies and living sciences from the golden ages.

The writer, "MimshawiJazila," bases her theatrical discourse on a group of characters. Among the most notable virtual characters is the figure of Time, who carries a camera with which he records all the events happening before him. Another key character is Suleiman, who represents the Arab youth. He is portrayed on stage as having suffered a severe traffic accident, leaving him in a coma in the hospital. During this time, while in the intensive care unit, he travels in his sleep with Time, "discovering that the lights still illuminating the world are rooted in his deep heritage (Mimshawi, 2018, p. 05). The journey then begins with a process of exchange through an engaging dramatic dialogue, showcasing each of the prominent characters in Arab history individually and the impact they have left on humanity.

The Effectiveness of the Character in Modern Analytical Studies

In the discourse before us, the writer begins her dramatic text *Travel in a Coma* with a static virtual character that contributes to most of the pivotal events of the narrative. This character participates in shaping the events of the discourse. According to JibranMasoud'sanalytical framework, a character is defined as "the sum of the physical, mental, and emotional traits that distinguish one person from another"(Jibran, 1986, p. 859). This character is centered around Suleiman, whose name signifies a person who seeks peace.

It can be noted that a character is "a semantic unit in that it represents a distinct meaning, and we assume that this meaning is subject to analysis and description. If we accept the premise that a character in a novel is born from units of meaning and that this character is constructed only through sentences spoken by or about them"(Hamon, 2013, pp. 38-39). The dramatic character is either defined by its presence or possesses meanings that can be realized, such as its statements or what is said about it, as Philip Hamon pointed out in his definition of literary characters. Alongside other distinct characters that contributed to the construction of the play, we can draw upon the following:

The First Virtual Character

Represented by the character of Al-Khwarizmi, who converses with a virtual character, Time. He introduces himself, his historical origins, and his genealogy, and then proceeds to explain a series of his achievements, saying:

> Al-Khwarizmi":I am the one whose diagrams and maps were used in all the discoveries of the European Renaissance "(Mimshawi, 2018, p. 08).

Al-Khwarizmi then mentions his contributions to various fields of science, revealing that he has a background in literature, especially in its poetic form, and that he has written numerous works in philosophy. After this argumentative dialogue, he steps aside to make way for another influential character, represented by Ibn al-Haytham.

The Second Virtual Personality

The third central character is represented by the personality of Ibn al-Haytham, one of the characters in the play *Journey into a Coma*. The name *al-Haytham* in Arabic dictionaries refers to a type of bird, specifically the eagle, and it was a name frequently used by Arab families. As for the personality of Ibn al-Haytham, he is Abu Ali, an Arab scientist from Basra in Iraq, renowned for his contributions to various sciences, including optics, mathematics, engineering, and ophthalmology. He practiced his encyclopedic knowledge according to a scientific methodology.

A dramatic dialogue takes place between the character of Ibn al-Haytham and the character of Suleiman, who lies in a coma. In this dialogue, Ibn al-Haytham introduces himself, recounting a series of his personal achievements in various scientific fields, including mathematics, physics, astronomy, anatomy, and medicine. He also highlights his work on regulating the flow of the Nile River. The conversation then shifts to other global figures.

The Third Virtual Personality

The writer based her dramatic dialogue on a third character, Abu al-Qasim al-Zahrawi, an Arab Muslim who lived his life in Andalusia. He drew from the natural biological sciences and learned surgery at its inception. In this play, his speech begins with reproaching Suleiman for not having done anything notable in his life, neither benefiting others nor himself. Al-Zahrawi then proceeds to reveal his name and origins, saying:

> Abu al-Qasim al-Zahrawi: "I am Abu al-QasimKhalafibn al-Abbas al-Zahrawi. I am an Arab Muslim physician. I lived in Andalusia". (Mimshawi, 2018, p. 08)

He presents to Suleiman his work, *Al-Tasrif*, a comprehensive medical encyclopedia for those who cannot compile one themselves, and discusses his contributions and achievements in the field of medicine. The name of this character carries Arab and religious significance, and he emphasizes his origins and pride in the golden ages of Islam and Muslims. He then reveals the character of Ibn Sina.

The Fourth Virtual Personality

Amidst the unfolding events of the dramatic discourse, the writer introduces the female element into the play. In the room where Suleiman and the virtual time character are present,

Umm Amara bintSufyan al-Thaqafiyya enters. She is Umm Amara, the wife of Asimibn Omar ibn al-Khattab (may Allah be pleased with him). She begins her conversation with Suleiman by stating the often-repeated proverb: "Behind every great man is a woman".

In this dialogue, Umm Amara reveals her Arab Islamic identity and then discloses that her grandson is the Caliph of the Muslims, Umar ibn Abdul Aziz. She recounts to Suleiman her story of piety, describing how people began mixing milk with excessive water. She shares this experience of piety witnessed by the Commander of the Faithful, Umar ibn al-Khattab, from behind the wall. She concludes the dialogue with the following words:

Umm Amara bint Sufyan: "We spoke the truth to Allah, and Allah rewarded us with the truth"(Mimshawi, 2018, p. 11). At this moment, she steps aside to allow a dialogue with the character of al-Idrisi.

The Fifth Virtual Personality

The dialogue begins between Suleiman and the hypothetical time character, who records the theatrical events precisely with his camera. He then engages in a conversation where he introduces himself, saying:

"I am Abu Abdullah Muhammad ibn Muhammad al-Idrisi al-Hashimi al-Qurashi"(Mimshawi, 2018, p. 09).

He refers to his lineage to the Hashim clan to enhance Suleiman's understanding of his religious background and then continues his discussion. He tries to answer Suleiman's various questions, mentioning that he is one of the prominent founders of the field of geography. In addition to his work in geography, he has also written in literature and poetry. The conversation then shifts to immortal women, and Umm Amara bintSufyan enters the scene.

Supporting dramatic characters in the development of the theatrical events :

It is also worth mentioning some theatrical characters who have contributed to the development of the theatrical narrative on the supposed stage. Among these, as a result of this dramatic formation, characters have emerged, including:

The character of Suleiman the Magnificent, the tenth Ottoman sultan, alongside the characters of Al-IzzibnAbd al-Salam, the character of Al-Din Ibn al-Bitar, the character of Abu al-HasanAlaa al-Din Ibn al-Nafis, Abd al-Hamid ibnBadis, Tariq ibn Ziyad, concluding her theatrical text with the character of Emir Abdelkader. It is noteworthy that the aforementioned names have not deviated from their national dimension and Arab roots, as all of them appear as prominent figures in the pages of history, each with their name and significant impact on their homeland and the Islamic nation.

The writer "Mamsawi" later relies on a stream of women who have left prominent marks and exemplary models to be followed. Among them are:

Fatima bint Muhammad Al-Fihri, known as Umm al-Banin, Mariam Al-Asturlabi, who excelled in space sciences as an astronomer, and LallaFatmaN'Soumer... From the examples given, it is evident that the humanities, particularly the arts, can greatly benefit from engaging with scientific advancements and utilizing the tools offered by modern media. This interaction serves as a vital link between the foundational elements of literature and its dynamic effectiveness, ensuring it remains relevant amidst contemporary developments. As researcher

Hossam Al-Khatib notes, "Literature and technology form a bridge to the multifaceted text"(Al-Khatib, 2011, p. 28). He made it clear that technology in the modern era parallels literature, as together they form a bridge that works to create new critical texts.

In discussing this critical analysis of theatrical discourse and uncovering the creative aspects within it, leading to the latent meanings in the play *Sfar fi Ghibouba*, which the writer JamilaMemchaoui based on artificial intelligence techniques and the use of virtual characters, one can refer to Khourchid's (1991) statement:

> When we succeed in uncovering the true essence of the Arab human soul through meticulous studies of the details and motifs of their literature, we will be able to accurately reread their literature. This will allow us to understand the contributions of the writer and the true suffering of poets and authors, whose rich depths have been obscured by superficial linguistic and rhetorical studies, and we will also succeed in understanding their role as one of the builders of human civilization. (p. 26)

These studies and research, as well as the attempt to explore everything surrounding the performing arts, are efforts to uplift this nation and assert its cultural elements, especially when linked to contemporary technologies and the current digital transformation.

Conclusion

This research aims to reveal how the humanities and their fields can benefit from artificial intelligence techniques and their applications to literary texts, particularly concerning the Algerian theatrical experience. In addition to relying on contemporary critical approaches that consider the text a document with a semantic linguistic system. After analyzing the theatrical discourse in the play *Journey in a Coma*, we can arrive at several conclusions regarding the use of artificial intelligence applications in the humanities:

-The variability in the effectiveness of artistic texts, their analysis, and the development of analytical tools using artificial intelligence techniques, particularly in their lexicographical aspects and in examining the minutiae of language.

-Media technology serves as a bridge linking literature and its impact with current contemporary innovations.

- Artificial intelligence has the potential to enhance all aspects of theatrical production, providing new tools for creators and contributing to an improved audience experience.

-Staying updated with system advancements to comprehend linguistic symbols, including formulating phrases for translating texts to and from Arabic.

-The potential to use media systems for statistical purposes and apply them to creative texts, organizing their work according to the desired analytical method.

-Arabic theater draws on artificial intelligence tools and systems, particularly in stage direction, and relies on virtual dramatic characters to assist in conveying theatrical events.

-Moreover, digital transformation programs have made it essential to adapt their mechanisms to statistical models to achieve more accurate outcomes.

-Artificial intelligence applications can be used in the humanities in general, particularly in their social and religious systems, to address various issues.

-Adapting to advancements in machine learning systems to integrate technologies into humanistic education, to achieve results that emphasize accuracy and effectiveness.

-Applications of artificial intelligence can be adapted to analyze texts by identifying narrative patterns and providing suggestions for improving the plot or developing characters.

- It is also possible to analyze the description of characters and their interactions to reveal their depth and development throughout the dramatic narrative.

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Declaration of AI Refined

This research paper has undergone language correction using the AI-powered tools Grammarly and Scholar AI Chat to address grammatical, spelling, and stylistic errors. It is acknowledged that the use of such tools may introduce standardised patterns typical of AI-generated content. Consequently, a certain percentage of content may reflect AI-generated language structures. Yet, the intellectual content and the analysis remain entirely the work of the authors.

Statement of Absence of Conflict of Interest

The authors mentioned above hereby solemnly declare that they are not and shall not be in any situation that could give rise to a conflict of interest in what concerns the findings and recommendations contained in this academic article.

References

Al-Arabi, O. a. (2019). *Artificial Intelligence and Natural Language Modeling* (M. A. Al-Arabi, Ed.). Riyadh: Dar Wujuh

Al-Khatib, H. (2011). *Literature and Technology.* Doha: Ministry of Culture, Arts, and Heritage

Al-Qashaa'la, B. (2021). *The Concise Concept of Intelligence.* Palestine: Center for Psychological Studies in Electronic Publishing

Ben Abdel Nour, A. (2005). *Introduction to Artificial Intelligence.* The Kingdom of Saudi Arabia: Technical Sciences

Ben Dhamane, O. (2015). *Conceptual Metaphor Theory and Literary Discourse.* Damascus: Dar Rwaya for Publishing and Distribution

Boudayar, S. (2024). *Artificial Intelligence in the Service of the Arabic Language - Smart Writing Assistant for the Arabic Language as an Example.* The Objectives in Language and Literature, *3*(1)

Chandler, D. (2008). *Foundations of Semiotics.* (T. Wahba, Trans.) Lebanon: The Arab Organization for Translation

Guiraud, P. (1984). *Semiotics.* (A. A. Zeid, Trans.) Lebanon: Awidat Publications

Hamdaw, J. (2016). *i Digital Literature: Theory and Practice.* Jordan: Al-Warraq Foundation

Hamon, P. (2013). *Semiology of Novelistic Characters* (S. Benkrad, Trans.) Latakia: Dar Al-Hiwar

Jibran, M. (1986). *Al-Raed: A Modern Linguistic Dictionary.* Lebanon: Dar Al-Ilm Lilmalayin

Karam, Z. (2009). *Digital Literature- Cultural Questions and Conceptual Reflections-.* Cairo: Dar Ru'ya Publishing and Distribution

Khourchid, F. (1991). *The wondrous world of popular literature.*Cairo: Dar Al-Shorouk

Magdy, N. (2020). *Artificial Intelligence and Machine Learning.* Emirates: Arab Monetary Fund

Mimshawi, J. (2018). *Journey in a Coma.* Tlemcen: Editions of the Book Tree

Play, W. (2008). *Artificial Intelligence.* Egypt: Dar Al Farouk for Cultural Investments

Saidi, M. (2024, 01 25). *Intelligence And The Digital Image In Movie HER by the Director " Spike Jonze ". Cinema Horizons Journal,10*(2), 89-99