Linguistic Structure and Multimedia: A Contemporary Linguistic Study in the Light of Computational Linguistics

Dr/ Eiman Abdelgabr Abdelsamie Allam[1]

Abstract

This research paper is concerned with studying the language and linguistic structure in modern digital poetics in light of contemporary linguistics, by studying the language and linguistic structure of interactive digital text or digital work as a complete unit and a comprehensive structure in which many multimedia have come together, by studying the linguistic structure of these media/texts. This was done through application to the interactive digital poem, so the topic was entitled ((Linguistic structure and multimedia: a contemporary linguistic study in light of computational linguistics)).The first topic: linguistic structure and multimedia, a theoretical studyThe second topic: Linguistic structure and multimedia in the digital poem, an applied study in the light of computational linguisticsThe research reached several results, including:The study of the phonetic, morphological and grammatical linguistic structure of the work revealed the author's consideration of the linguistic aspect in the compositional structure of the text and not relying on media only to express his experience.Multimedia represents elements and alphabets interconnected with language that are indispensable in digital constructionDigital literature and the digital poem represented a tremendous overcoming of the linguistic barriers upon which paper literary works were based

Keywords: *digital literature, interconnected text, hypermedia, hypertext.*

The First Topic: Linguistic Construction and Multimedia, A Theoretical Study

Paper literature and the paper form remained the graduation ceremony for literature until a recent era, but things soon changed due to the innovations and variables of the era. Literature is a mirror of its era throughout the ages, and its characteristics have changed with this era and its modern medium. Then we have changed between paper literature and digital literature in all its types and characteristics:

From the author to the reader to the original text, the diversity of each of them has changed completely. The author, for example, in the digital age, has added to his literary talent and linguistic mastery.[2]

He must learn the language of the new medium through which he will deal, compose, and direct the work. He must be familiar with the art of film directing, the art of screenwriting, the programming language, the computer language and the Internet, and master dealing with them.[3]

Hence, the digital author must combine talent and dealing with the medium and technology

Hence, the digital author is characterized by features that the paper author does not have, including increasing the size of its audience, comparative reading, ease of reaching them, in

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[1] Associate Professor of Linguistics, department of Arabic language & Literature, Faculty of Education Prince Sattam bin Abdulaziz University, Saudi Arabia.
[2] - A reading of the book The Arabic Novel and the Bet on Renewal, p. 223
[3] - See edited / Who is the digital writer, p. 137

addition to speed of access, and the possibility of interaction between it and its readers.

From the author to the recipient, his role was completely different from what it was in paper literature, so the role changed from the recipient to the interactor. Then the nature, form and process of reading changed from opening and flipping the pages of a literary work, the pages and their numbers, the cover and the index... to another nature and method of reading and dealing, which is (opening windows, keeping more than one text, going forward and back... and dealing with multiple and varied icons. These icons include navigation icons or interaction icons.

Then the role of the recipient expanded or changed from receiving or emotional interaction to actual interaction with the text and the author, which forced the author to have interaction icons for the recipient in the final design of the work.

The nature of the work itself imposes on the recipient to determine the reading path itself, which icon he would like to read, which path he prefers to start with, and so on, to the point of allowing him the opportunity to participate with the author in writing scenes from the work itself.[4]

And from the author and the recipient to the nature of the digital work itself, which differed according to the medium, from paper to digital, and to the actual and imaginary virtual world, where it is the opposite of reality or the opposite of the tangible; Since this literature, by its nature, exists in an intangible form, if the power is cut off or the Internet is shut down from the medium (computer), the work is closed and it becomes a text hidden in cyberspace, and this literature cannot be transcribed into paper literature.

However, if we move to the practical and verbal sequence of the text, it is a move from the familiar sequence in paper literature to a lack of sequence, to a move from any direction and to any direction via links, and then to not specifying a starting point or an end point. This is quite the opposite of a linear, sequential paper text.[5]

Which changed the possible connotations of the linguistic structure itself

Digital literature also differed from digital literature in the combination of digital and multimedia, that is, the multiplicity of mechanisms that help the writer to express the idea, whether in word or other mechanisms such as still or moving images, maps, video, music, pictures, movement, etc., which opened up to the author other worlds and mazes that are used through What is known as (links) or linked text, which is one of the main features in creating digital text, as it is based on linking the entire structure of the work with all its details to each other via a blue link. What imposes on the digital text is indeterminacy and lack of stability, but rather the possibility of separating the part from the whole, without disturbing the text and then changing the meaning without disturbing the general meaning of the text.[6]

As for the dialectics of language in digital literature:

Talking about language and its use in literature is talking about two sides of the same coin[7]. Literature throughout the ages has been the tool of written or spoken language. This is also the case in digital literature, except that the matter differs in the centrality or exclusivity of language in literary expression. Language in paper literature was both the starting point and the arrival point in expressing the literary experience, as it was the main, central, and perhaps the only tool

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[4] - Horizons of reception in the interactive novel, p. 16
[5] - See Questions of the Digital Literary Text, p. 41
[6] - Poetics of Interactive Text - Narrative Mechanisms and the Magic of Reading, p. 47
[7] - See: Interactive and linguistic digital formation and expression of violence, "Shadows of the Lover" as a model, p. 26

through which the author expresses himself and uses it with all its capabilities to express his experience. As for the digital experience, it has moved from the main, central, or only method of expression to a harmonious mixture of languages or alphabets that are interconnected and integrated in the work industry. Language in electronic literature is no longer the abstract, limited language that is only sounds, vocabulary, or structures. Rather, the field has expanded and has become part of a whole. It has become a mixture of language (spoken, audible, written, drawn, pictured, animated, static, or...)[8] and language from a literary perspective. Electronic. Since the digital text is an interconnected text in which words perform their function by employing many linguistic signs and non-linguistic signs, in addition to other visual, audio and kinetic media alphabets; By seeing and hearing, through background music, pictures, animated or non-animated graphics, and Language in digital literature was not limited to (the linguistic alphabet) only, but rather expanded to include the linguistic alphabet and other alphabets in other forms such as sound, image, video, and... those The new alphabets did not affect the language with its words and sounds and did not marginalize it at all, as the author focuses primarily on these multimedia that attract the reader and attract attention with their visual and kinetic effects that work together. The language in digital literature is a dual language that combines the language with its sounds and letters, spoken or written, and the media language. Which took the icon and the medium as its most important tools, and in other words, a language that allowed the merging of verbal and non-verbal systems, which opened a space of flexibility in expression in it, and the transition of expression in language in digital literature from the centrality of expression in it to[9] decentralization or mixing of expression in it and with others does not mean marginalizing the language, but rather It means a change in the method of use in a way that is commensurate with the digital language, with its features, its media power, and its ability to spread and influence. Literature's departure from linearity and paper does not mean its departure from expression in the language at all, but rather it is only a change in how it is used.

The Second Topic: Linguistic Structure and Multimedia in the Digital Poem: An Applied Study in the Light of Contemporary Linguistics

The change of medium and the embrace of different alphabets with language to form the digital work cannot be separated from the semantic development of the words within the work; Expression through music, a still or moving image, for example, or other media[10] represents in digital a semantic ground and background that cannot be overlooked, as the meaning of the central words has expanded with its stability and the marginal meaning with its specificity, in proportion to the colours, music, movement and the method of writing itself. If the vocabulary is in a constant movement of entry and exit, increasing and decreasing and changing for each of us with changing situations and life circumstances, then the change in the medium also played an important role in expanding the meanings and connotations of words, especially the psychological connotations that the author - in the work under study - tried to highlight from the beginning; The meaning of words expressing frustration, despair, or sadness increased, for example, in a clearer way in dealing with work as a total unit in using the main portal to work in the form of a clock with the hands moving in the opposite direction to the conventional direction, a dark-colored frame centered on a black background, as visual culture generated a huge amount of connotations. Expressionism[11].

The study will study this point by combining the study of the linguistic structure of the digital

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[8] - See / Aesthetics of digital rhetoric in modern media text: The novel between paper and digital as an example, p. 31

[9] The Poetics of Interactive Text - Narrative Mechanisms and the Magic of Reading, p. 192

[10] p: 284 An Introduction to Language and Linguistics

[11] - Analysis LOCAL LITERATURE AND MASS MEDIA LOCALGLOBAL DIALECTICS IN USING-BANYUWANGI LITERATURE p2-3

poem under study, a linguistic study, then a digital study, by studying the phonetic structure of the text and the morphological and grammatical structure first, then digitally: As for the aspect of the linguistic structure of the poem>

Phonological structure: The sound represents the first semantic unit that corresponds to the linguistic lesson and the linguistic structure of any text, as language is a vocal phenomenon that differs from all other non-linguistic symbols, and because of what is known of the close relationship between the timbre of a word and its meaning conveyed by sounds; We find an important phonetic feature that the author followed in the panels of the work, which is the predominance of expression with a specific sound in each panel, and it has a semantic feature to fit between the sound as a phonetic study and what it suggests from its phonetic study. In the first panel (poverty), for example, the repetition of the hesitant (ra) sounds and the lateral (lam) are predominant and famous. Their characteristics are loudness, and that is what is appropriate for poverty and what it does to people openly and over and over again, directly and indirectly. The second painting (frustration), the sound of the h, a guttural, whispered, fricative sound, are all characteristics that fit with the nature of the inner frustration with which the author titled his painting, which carries frustration with everything without anything. Try anything. Thus we find in the rest of the work panels, and in addition we find repetition on the rhythmic level, as we find repetition in the side icons on all the work panels. We also find linguistic repetition and repetition of spaces... The author intended to express the meaning of these spaces [12]

For example, in the first painting, frustration, we find repetition in:

The coffin groans as victims

Victims after victims

Victims after victims

In the third painting (loneliness and isolation)

Shake once:

Cloud our pains so that the groaning can flow?!

Shake once:

The coffin of your tired children?!

And at 12 o'clock the resistance panel

It's still my mother's face [13]

Soaked with loss

It's still my mother's face

Count the years of drought

My mother's face is still our home for sad butterflies

As for the repetition of spaces, for example, in the painting "Stagnation" at Five O'clock, the spaces were repeated in a manner that is semantically appropriate to the meaning of the stagnation that clouded the clock and the entire painting...

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[12] - Applied semantics in Arab heritage, p. 49
[13] - Phonology, p. 315

Where he says:

there

Where the shadows are far away

There are young sparks

You yearn for love

there

Where the shadows are

There is a joker who has gout

Embrace wet disappointments

You can't update with the heating disk[14]

here

Where the shadows are close There is no

something?

Morphological structure: The structure of the word, its form, and the form on which its letters are built play an important role in determining its meaning and then determining its connotation. Each word has its own structure that distinguishes it from others. The structure of the word plays a major role in determining the meaning that the speaker wants, and one who meditates on the work paintings under study will find an increase in the expression in the[15] noun that is devoid of the element of time, and thus gives a rigid and fixed meaning, and then it is suitable for indicating the non-renewal of the event and adding a color of stability in contrast to the expression with the verb and its significance. over time to a large extent; The nouns were 256 nouns[16], while the verbs were 84 verbs, as the author wanted to establish steadfastness and stagnation in a way that suits the general atmosphere of the poem, the state of despair, frustration, and... that dominates the work as a whole. He wanted to establish the idea of immersion, stillness, and steadfastness in this state without any attempt to change[17], and then increased it. The ratio of expression by noun to verb, and even in expression by verbs, there were 50 verbs in the present tense; Where the present tense verb indicates the situation, which is similar to the meaning of the noun, while the past tense verbs were 30 verbs indicating that it was too late and frustration, and the imperative verbs were very few compared to the rest of the verbs in the text, so there were 4 verbs, [18]as the author wanted to emphasize the absence of intention to change at all.

In addition to the appeal and the interrogative, the author also used the declarative style of reporting in conveying the emotion controlling him, as he used the present obligatory verb beginning with (s) to confirm his experience, which moved from a subjective experience to a general experience, saying: (The road will forget my features) (Others will forget their features as well), (loss plate).

In addition to the above, we find the author's interest in the significance of the contrast of mentioning the thing and its opposite in the oasis painting in most of the work's paintings, which reflects the prevailing atmosphere in the poem[19].

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[14] - Suggestive significance in the singular form, p. 43
[15] - See / The study of style between contemporary and heritage, pp. 151, 152, and / Structures of time and their connotations in the Arabic and English languages: a contrastive study, pp. 175-176.
[16] - Study of style between contemporary and heritage, p. 153
[17] - The temporal significance of the present tense verb in Surat Al-Tawbah, p. 37
[18] - Structures of time and their connotations in the Arabic and English languages: a contrastive study, pp. 175-176
[19] - See: Interconnected Text and the Future of Arab Culture (Towards Digital Arabic Writing), p. 13.

If our previous discussion included talking about the linguistic structure of this digital work, then the discussion in the following research pages will take a different direction in proportion to the other alphabets of multimedia and interconnected media in which language participated in the construction of the poem, including:[20]

Audio/vocal expression (music): Sound in digital work is not just an audible background for texts, but rather it enters into the folds of the work and is considered an essential element in it, and it appears in the author's use of music when it affects the listener in a way that cannot be expressed in letters or any other means. Music A universal language that does not require translation. Every person can understand and feel it, young or old, knowledgeable or ignorant..."

Paying attention to the importance of sound and music is an ancient interest that began with the science of prosody or the music of Arabic poetry... which was represented in the poem "Infinities of the Firewall" - the subject of study in many matters, including silent music without words that changed in each unit, with different music that suits the nature of the painting and the nature of The meanings of words and the implied meanings that the author wanted to share with the listener

The poem was opened with a piece of music that harmonizes with the sound of the ticking of the clock hands that does not stop or end. To express the continuous human experience by the constant ticking of the clock in the listener's ear, which is repeated repeatedly on its own until the recipient interacts with the work by clicking on any icon or clock he wants. Passing through each of the work's paintings, which was associated with a background whose colors harmonized with the music that matches the words of the painting and its connotations, such as the music of the painting "Loss," which expresses failure and loss https://dr-mushtaq.iq/My-poetry-works/Interactive-digital/index/ Num-8/Num-8-.html [21]

We also find visual expression: which includes expression through drawings and images, through photographic clips and cinematic scenes, and learning to read them,... . This visual expression can achieve many meanings that are difficult to replace with another alphabet, such as the alphabet of letters, the alphabet of music, or others, which depend on the visual design, the nature of its creation, the elements of image design, and the principles of its design...: The visual scene is considered a complete and indivisible discourse - as It represents reality in all its details - as it is considered a communicative semantic framework whose significance stems from its ability to carry out this communication. It is a message between a sender and a receiver, with a content that settles in the subconscious mind of the recipient without him realizing it.

Visual expression is characterized by its dimensions of communication, which are based on breaking the barriers of time and the generality of meaning. Visual expression in general represents a gateway to addressing the reading public, as it quickly attracts attention and quickly determines the meaning.[22]

The visual expression in the poem under study is represented in many things, including: the colors and their harmony in each panel, starting from the façade, and its yellow colors, which carry the meaning of fire, which came in the form of a moving clock in a moving frame composed of a group of dark colors on a black background.

It also appeared in a caricature drawing by the cartoonist Naji Salim Hussein Al-Ali of the character Handhala, one of the caricature characters in which the author embodied the meaning of continuing the renewal of traffic and the renewal of road traffic.

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[20] - See / Horizons of the Literary Text within Globalization, pp. 50-52

[21] - Digital Literature considers cultural questions and conceptual reflections, p. 82

[22] - See: Interconnected Text and the Future of Arab Culture (Towards Digital Arabic Writing), p. 13.

In addition to the above, we find the characteristic of hypertext (a text composed of clusters of texts and electronic links connecting them) that characterizes any digital work, due to a complete, interconnected spider network that connects the work as a single unit and at the same time cuts it and separates it into parts and units. Each unit has its own characteristics and composition. This feature is an important tool that the author uses to move between his work paths to explore the dimensions of the text and its multiple directions. It plays the role of quick navigation and jumping from one text to another according to what the user or recipient wants, and through it the user deals and interacts with the service that suits him (back and forth), which is represented by In the interface of the work, which is represented by the clock with its hour titles, and also in the fixed, moving half of the screen in each panel with its interconnected, complex icons (the eye of the wolf, the complete horizon, the color of your horizon, if you like the eyes of the horizon, how much you like) [23]

With the endless icon of (Handala) and the always moving road lined with thorns that do not stop under his feet, embodying the continuous human life without...

Results

1- The difference in expression in the language from a state of centrality in expression to mixing with different media does not mean the marginalization of expression in the language; Although the digital creative experience brought literature beyond paper, it proved that literature cannot exist without language - the way of expressing it differed, but it cannot not exist.

2- The digital poem, with the characteristics of digital poetry, represented the best representation of digital literature with all its characteristics

3- Contemporary linguistic studies have opened many horizons for studying digital works with their new characteristics

4- The digital work employed linguistic characteristics to greatly express the author's personal and digital experience

5- The study of the phonetic, morphological and grammatical linguistic structure of the work revealed the author's consideration of the linguistic aspect in the compositional structure of the text and not relying on media only to express his experience.

6- The philosophy of studying language in the digital poem in which it is not possible to limit ourselves to the linguistic structure without studying a number of other alphabets, such as the phonetic and visual alphabets and others.

7- Multimedia represents indispensable elements in work

8- Digital literature and digital poetry represent a tremendous overcoming of the linguistic barriers on which paper literary works are based

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