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Emojis in the Virtual Environment: An Alternative to Written and Spoken Languages

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Abstract:
This research paper offers a critical communicative interpretation of the noticeable evolution of interactive additions within the system. This includes, for example, the field of interactive emojis or what is known as Unicode language, and the increase in their quality and quantity on various digital and virtual publishing platforms.
Communication and language researchers consider this technology to enhance the ability to communicate on interaction platforms and social networks. It also supports the structural framework of messages circulated through communication means and is considered a communicative support for all segments of the collective communicative system, including the deaf and hard of hearing and people with special needs in general. Emojis, as an emotional extension of language, help convey the message more effectively. On the other hand, it raises many issues as the generalization of interactive tools on virtual platforms leads to the creation of a standardized communication pattern that supports and pulls towards the globalization of communication without considering the reality of cultural and gender implications.
It also supports the highlighting of some deviant phenomena such as homosexuality, transgenderism, hate speech, symbolic violence, and social bullying.

Keywords: Emojis; Virtual Environment; Unicode Language; Written and Spoken Languages.

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1. INTRODUCTION

Anyone following digital communication trends will notice that since our entry into the realm of internet use and Web 2.0, rapid advancements in tools and applications have brought about a qualitative shift in communication and media processes in general and their known patterns. For decades, mass media and news agencies monopolized information sources, practicing forms of propaganda, advertising, and all forms of social and political communication.

The audience was distant, and their reactions to what was presented to them were difficult to understand. However, modern communication technologies and the internet have brought about this change, creating a new type of media and its research: the emergence of the digital age, also known as the age of new media or digital wave media. This is primarily manifested in virtual platforms on social networks, innovative integrated applications, with the best and most effective tools of interactivity made available to users. (Saber, 2018, p. 105)

Social networks are the most important electronic communication tools and the main feature of networked media. They are very popular among internet users, especially those using smartphones, tablets, and computers. Young people (see studies below) are the biggest users of these platforms and this new way of communicating (Primack, Ariel, Jaime E, Erin O, & Elizabeth, 2017, p. 78)

Unicode language has fostered a new paradigm of communication, offering a platform that facilitates interaction and engagement among individuals. By departing from conventional linguistic norms, Unicode has introduced a fresh perspective on communication, particularly through the revitalization of emoticons. These emoticons, rooted in ancient linguistic forms, have been reimagined to align with contemporary technological innovations, enabling users to express themselves in novel and engaging ways. (Daira & Belamir, 2022, p. 249)

The interactivity within networked media, and specifically social media platforms, is the feature that has actively involved the audience in the communication and media process, after being marginalized for decades in traditional media. Interaction within these virtual systems is facilitated by the integration of technical tools by companies owning these platforms, such as Facebook, which incorporated emojis into its application in 2013. At that time, Facebook introduced the "stickers" feature, allowing users to employ a diverse range of emojis to express emotions in their comments and posts. (Baym, Zhang, & Mei-Chen, 2004, pp. 301-303)

Therefore the integration of emojis into the structure of sentences in social media conversations has become a widespread phenomenon. Originally intended to express emotions and add context to textual communications, emojis have evolved into an integral part of the syntactic structure of electronic dialogue.

The use of non-verbal symbols, such as emojis or emoticons, in digital conversations has become increasingly prevalent. These visual representations, employed in comments and discussions as a substitute for verbal and nonverbal communication in physical spaces, serve as a concise means of expressing a wide range of emotions, including anger, love, happiness, joy, laughter, shock, and disgust. Emojis, in essence, represent the non-verbal aspect of communication, mirroring body language through gestures, movements, and implications, this sentiment has been echoed by numerous researchers who have claimed that the expressive value of an image is equivalent to a thousand words. Images contribute to completing incomplete meanings or those that cannot be adequately expressed through written language. Moreover, some individuals may find it difficult to articulate certain feelings in words. In this context, statistics reveal that approximately 5 billion emojis are sent daily via the Messenger app, while around 60 million emojis are used in comments on Facebook. (Daira & Belamir, 2022, p. 250)

However, the tremendous developments in the phenomenon of emojis within virtual spaces have created a kind of support for undesirable phenomena in the social order. For example, Avatar technology, by allowing users to create a personalized character with a wide range of choices for shape, face, and clothing, supports false virtual identities more effectively and sometimes creates misconceptions among users. It also allows for more expression of gender transition phenomena. Furthermore, the excessive use of emojis can negatively impact users' linguistic quality. Therefore, in this study, we aim to provide a kind of explanation and analysis by raising the following questions:

What are the implications of employing emojis within virtual environments as a substitute for written and spoken language?

2. Unicode as a universal language for digital communication

2.1 An explanation of emojis

"Emoji" is originally an English word derived from a Japanese term composed of two parts: "E," meaning picture, and "moji," meaning character. Combined, they form the word "emoji," which refers to the pictorial representation or emoticon used in Japanese electronic messaging. Due to its extensive use and cultural impact, it was invented in Japan in 1995 by an engineer working for a company called NTTDOCOMO (Wasar, 2022, p. 999)

Emojis have become a popular form of expression among young people, particularly in digital communication. They are used to convey emotions, reactions, and even complete thoughts. A single emoji can serve as a concise and effective response to a message. Due to their versatility, emojis have become a universal language that can be understood across cultures and languages. The first set of emojis, consisting of 176 images, was designed for Japan's early mobile internet services and has since evolved into the vast array of emojis available today. (Daira & Belamir, 2022, p. 151)

As for emoji linguistics, it is defined as the set of expressive symbols known as emojis. It is considered a technical language used in social media networks. These emojis form part of the available emojis, and these symbols are produced according to specific contexts and with a certain classification and numbering. (Ben Aïcha, 2022, p. 361)

Before the emergence of these models, the audience relied on symbolic linguistic representation to express their feelings by using punctuation marks found on the keyboard, such as adding a parenthesis ")" with a colon ":" to express a frowning face or a downward-facing parenthesis "(" with a colon ":" to express a smiling face☺ and ☹, in fact, these symbols are abbreviations for facial expressions that take the place of verbal expressions, which are usually translated by intonation or body language. Emojis are popular digital graphic images that can appear in text messages, emails, and on social media. They are also illustrated characters or drawings that are very popular in text-based communications, and they are images that can be naturally integrated with plain text to create a new form of communication. (Wasar, 2022, p. 1000)

It is an informal and unofficial global language that is used by millions of internet users, especially social media users. It is used in various conversations, comments, and discussions, and more than that, a World Emoji Day has been designated on July 17th of each year. This has given this language a significant place in new communication spaces.

It is accessible and expresses psychological, social, and cultural states, even contextual ones that align with the specifics of each region. This is what sometimes makes us differentiate between common (universal) emojis and those that have a specific specificity that suits a particular context. In addition to that, it is subject to an updating process, as it is primarily a technical symbolic language. It has the ability to evolve through the process of modification or adding new emojis, which distinguishes it from other emojis .(Ben Aïcha, 2022, p. 364)

2.2 The Evolution of Emojis

Before discussing the evolution of emojis, it is necessary to open a research field to discuss Web 2.0, as it is the real starting point for all forms of services and applications that have increased the comprehensiveness of internet applications and their uses in our daily lives. Web 2.0 is considered a hybrid phenomenon with overlapping technical, philosophical, social, and even marketing dimensions, making the concept very vague and difficult to define at the conceptual level, whether theoretical or procedural,Francis Pisani, a renowned French blogger in the field of modern technologies, corroborates Tim O'Reilly's assertion regarding the challenges of defining "Web 2.0." O'Reilly, the individual who initially coined the term, acknowledges the ambiguity surrounding this concept, highlighting the diverse viewpoints and perspectives among researchers. The multifaceted nature of Web 2.0, encompassing technological, economic, and social dimensions, makes it difficult to categorize within a specific epistemological framework. O'Reilly suggests that Web 2.0 represents a significant shift, marking the end of one era and the beginning

of another characterized by technological advancements, a burgeoning digital economy, and the innovative practices of internet users. (Diouma & Diallo, 2011, pp. 09-10)

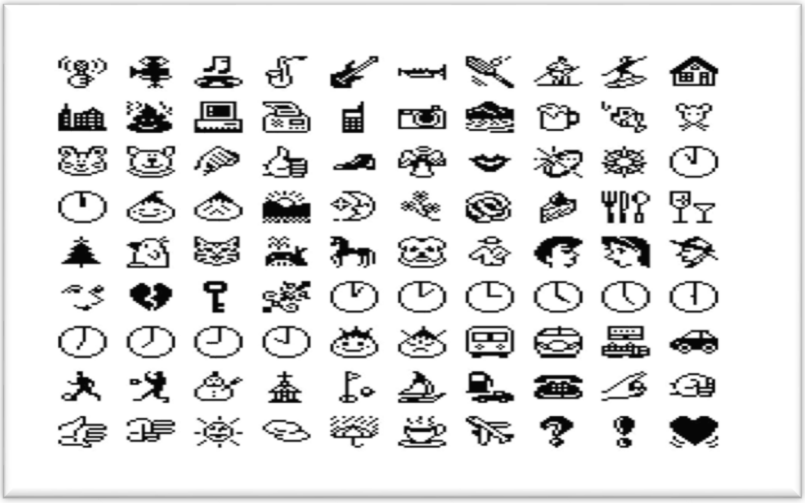
Web 2.0 is a new philosophy or style of providing services, as described in some scientific literature concerned with the development of the second generation of the Internet. It is based on interactive models and is represented in visual representations, meaning those that refer to its most obvious aspect. It is a trend in web design that tends towards clarity and simplicity, thus contributing to easier access to the web or network. It is no wonder that user-centricity, the sparing use of 3D shapes, neutral-colored backgrounds, simple icons, and the predominance of white color, all represent some of the rules adopted by this design school, as indicated by many examples. The values carried by this renewal and change in perspective in general are based on a four-element vision: simplicity, dialogue, participation, and integration. One of the most important technological gains enabled by Web 2.0 is social media or social networks.

Social networks can be defined as 'websites that are classified as second-generation web (Web 2.0) sites, also known as social networking sites, which are primarily user-driven and enable communication between users, whether they are real-life friends or met in the virtual world,' and 'they are global networks that enable communication between individuals worldwide through the information space, encompassing millions of people, and through which interests can be shared, friendships can be formed, deals can be made, and other forms of interaction can take place within their environment,' [1] Social media or social networking sites are also defined as other dedicated websites or applications that enable users to communicate with each other by posting information, comments, messages, and images. (definition, 2013, pp. 25-27)

Therefore, the concept of social media used in this study covers the software and applications aspect, but does not cover the aspect of tools used, such as different types of computers, laptops, tablets, and smartphones, and communication technologies. It should be noted that the rapid technological advancement in tools and their capabilities is one of the most important driving factors for the spread of social media and the emergence of successive innovations in such media. Many technical experts have confirmed that social media currently controls about 71% of the global media and communication market. (Prescott, 2012, pp. 119-120)

Emojis, also known as smileys, originated in Japan. They were created by engineer Shigetaka Kurita while working for a telecommunications company. From there, a Japanese team began developing these symbols for the company's internet and mobile phone system. In 2010, hundreds of characters were imported as emojis into the Unicode language, becoming globally accepted and compatible with the cultural and linguistic differences of symbols in almost all countries around the world. This led to their use in many communication devices and electronic applications, and they took various forms through the use of keyboards on phones and computers,

which was pioneered by Apple in 2011 .(Ben Aïcha, 2022, p. 365), the first emojis started to become active on websites and computers around 1997 (emojitimeline.com)



(Figure 01: Shows the emojis of 1997)

Subsequently, specific emojis were added year after year. Google launched an 'additional emoji' feature in Gmail lists, providing access to over 1200 emojis, this integration was achieved through an agreement between the Japanese telecommunications company, the owner of the product, and the American company Google, the emojis evolved, incorporating colors and improved ideas, the following figure shows the emojis for the year 2009.

(Figure 02: Examples of emojis introduced in 2009)

Unicode released a new set of emojis in 2015, including : (emojitimeline.com)

Figure 3: A set of emoji released in 2015.

During the COVID-19 pandemic, Facebook added a seventh 'reaction' button to its platform, featuring a hugging heart emoji. It joins the other five reactions, introduced four years prior: like, love, haha, wow, sad, and angry. The new reaction aims to provide a shorthand for the platform's 2 billion users to express care, empathy, and solidarity when commenting on a status update, message, photo, or video. This reaction remains the most used on Facebook in 2023.

Figure 4: Facebook's official emojis for the year 2020.

The idea of a 'hug' reaction has consistently resurfaced as one of the emotions and feelings that were missing from the reactions. And with the current crisis, there is no doubt that people need more empathy and more support.

This development has led Unicode to reach its new version 7.0 in 2018, with a total of 2834 emojis available in its language. This list is constantly growing as changes occur in this field. As for text messages that use this language, they reached 96.4% of messages exchanged online. This usage continues to develop and enhance certain services. Sites like Shutterstock and Adobe Stock now allow image searches using emojis, and Facebook has recently developed this language and uses many emojis with specific characteristics based on user data.

It is well-known in the emoji market that the Unicode Consortium, also known as the Unicode Group, develops and maintains the Unicode Standard, which includes emojis. It licenses emoji sets and freely licenses the standards and emojis included in various open-source software licenses. The presenter wishes to propose one or more emoji for encoding and inclusion in the

standard. Based on the aforementioned, the mutual covenants contained in the Unicode agreement entered into with telecommunications institutions, social media sites, or phone manufacturers, and the useful and valuable considerations, Unicode enters into new emoji deals with computer companies or mobile phone companies such as Apple, Samsung, and Microsoft, and typically releases a set of new emojis annually (emojipedia.org).

Swift Key's report reveals that emoji usage aligns with regional specificities, influencing the choice and nature of emojis used. The Unicode Consortium is the global authority responsible for approving emojis and their expressions. Each year, they receive numerous proposals for new icons and emojis, or updates to existing ones. In 2014, a marketing firm estimated that 6 billion stickers and emojis were shared across smartphones worldwide.

The "laughing with tears" emoji is a common choice in comments, particularly in casual conversations. This feature appeals to approximately 9075 of users who view emojis as emotional symbols that add a playful personality to discussions and enhance communication between individuals. (Ben Aïcha, 2022, p. 365)

3. Emoji-based interaction in digital spaces

3.1 Intrectivity Difinition

The concept of true interactivity came into being with the advent of new media, content, and communication methods, finding its most pronounced expression through the internet. Interactivity has increasingly been adopted as a tool for sociological analysis of communication, leading to a surge in studies examining the communication process through this lens. This is attributed to the internet's unique capacity to facilitate extensive freedom and participation in creating and sharing content. Given the egalitarian nature of internet users and actors, it is not owned by any single entity.

The internet, as a communication medium that integrates various traditional communication methods, has given interactivity new dimensions and characteristics, most notably "asynchronicity," meaning that communication can occur at a time convenient for both the sender and the receiver. For example, an email can be received without the recipient being present. Moreover, real-time media services are closely linked to the internet as a multi-functional medium that represents an interactive media device, not only allowing for passive reception but also enabling users to participate and share their viewpoints. The first such participations began with the emergence of social networks in 1997, starting with Sixdegrees, a site that allowed users to create personal profiles. (Sekki & Mehri, 2022, p. 62)

The concept of interactivity, particularly within the realm of new media, highlights the dynamic exchange between users and the medium. This empowers users to actively participate in

the communication process, influencing its direction and shaping its content. This shift towards user-generated content has fundamentally transformed the way we communicate and consume information.

This characteristic refers to the degree to which participants in a communication process can influence the roles of others and exchange them. This practice is called reciprocal or interactive practice. Interactivity, in this sense, has two meanings: first, there is a series of communicative actions in which individual (A) can take the position of individual (B) and perform their communicative actions; second, the sender can simultaneously be a receiver and vice versa. Participants in this process are referred to as 'participants' rather than 'sources', introducing new terms like 'dual practice', 'exchange', 'control', and 'participants' into the communication process. An example of this is the interactivity found in some television text systems. (Sheikhany, 2010, p. 444), interactivity is a communicative process that occurs within a social context, allowing communication participants to co-construct and shape the content of the message. It also grants them the freedom to express their opinions, critique the content, and make sequential and reciprocal additions and modifications.

3.2 Emojis and communication symbols as an alternative language

Every year, Facebook announces the latest updates. On July 17, 2021, they launched the audio emoji feature on Messenger, coinciding with World Emoji Day. Messenger users can now express their feelings using emojis accompanied by sound. This new feature allows them to send short audio clips directly within the Messenger chat. These audio clips include a variety of sound effects such as crickets, applause, drums, and evil laughter, as well as clips from users' favorite songs and TV shows. Each sound will be paired with the user's preferred emoji. The audio clip will be sent as an emoji without any words, allowing users to express their emotions through a combination of sound and emoji. (Daira & Belamir, 2022, p. 260)

In old-school writing, punctuation like periods and commas are super important for making sense of sentences. But on social media, where things are more casual, we often skip those rules. Instead, we use emojis to do all sorts of things, like ending a sentence or adding extra meaning. For example, a smiley face or thumbs-up emoji can act like a period, showing that you're done talking. Emojis can also replace other punctuation marks to show how you feel or to connect different ideas. (Arafah & Muhammad, 2019, p. 495)

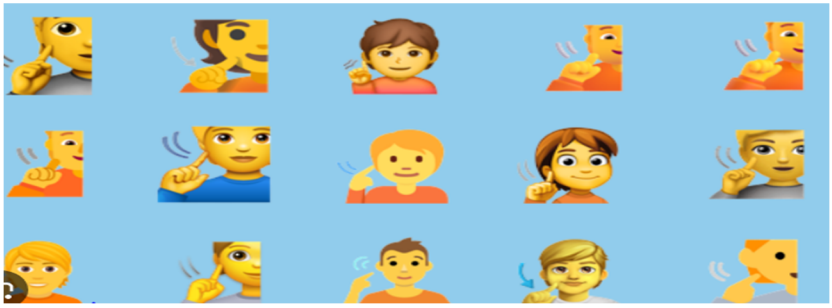
Furthermore, their applications are multifaceted and extend beyond entertainment. For instance, emojis have begun to be used in scientific contexts, as exemplified by the American scientist Bill Nye, who employed emojis to explain scientific concepts. This clearly demonstrates the significant and influential roles these symbols play in various aspects of life. Additionally, 42%

of retail companies utilize emojis in their marketing messages, whether it be emails, mobile notifications, or web notifications. (primostats.com)

3.3 Unicode-based language for the deaf and hard of hearing

This comprehensive language, which unites various alphabets and symbols, plays a vital role in empowering individuals with hearing impairments. It provides an effective means of communication in the digital environment, allowing these individuals to utilize emojis and illustrations to convey their thoughts and feelings effortlessly.

Additionally, Unicode contributes to the development of applications and software specifically designed to translate sign language into written text and vice versa, opening new horizons for social and educational interaction for this group. Emojipedia has introduced new and innovative emoji sets specifically designed for individuals with hearing impairments and other disabilities as a new and interactive support, in a continuous effort to promote their inclusion. (emojipedia.org)



The significance of Unicode for individuals with hearing impairments can be summarized in the following points:

a. Expanding the scope of communication: Unicode enables deaf and mute individuals to communicate more effectively with others, regardless of whether they have the same disability.
b. Educational support: Unicode contributes to the development of innovative educational tools, such as e-books and interactive activities, facilitating the learning process for deaf individuals.
c. Social integration: Unicode helps to integrate individuals with hearing impairments into the digital society, enhancing their sense of belonging and acceptance.
d. Self-expression: Unicode allows deaf individuals to express themselves creatively, whether through digital arts or writing. The newly introduced emoji pack in 2023, as shown in the attached image, provides individuals with disabilities, including those who are deaf, with new ways to communicate and express themselves on social media platforms.

4. Avatar as the newest technology in the family of emojis

The concept of avatars in video games originated from the idea of extending one's physical body into the virtual space of the game. This concept is often discussed within the framework of phenomenological and cognitive theories, particularly in relation to agency and immersion in video games. Andreas Grigersson provides a comprehensive analysis of the relationship between the player and the avatar, emphasizing how it is rooted in the fundamental functions of the embodied mind. This relationship is further explored in the context of the existentialist philosopher Maurice Merleau-Ponty's work, "Phenomenology of Perception," which emphasizes the role of the body in perception and action. (Juul & Klevjer, 2016, p. 04), this extension of the body into the virtual space allows players to experience a sense of immersion and agency, as described by David Sudnow in his analysis of the video game "Breach". Sudnow suggests that players are able to bridge the gap between the physical and virtual worlds through movements that create a sense of connection and interaction with the game environment. Overall, the concept of playing with an avatar as an artificial extension of the body offers insights into the ways players perceive, interact with, and engage in video games, highlighting the complex relationship between the embodied mind and virtual experiences.

Facebook Avatar: In 2020, Facebook introduced a new feature called Avatar, allowing users to create a cartoonish representation of themselves. Once created, users can share their personalized avatar on their profile and use it in posts and comments, similar to emojis, The researchers highlight the following characteristics of avatars:

a. **Anonymity**: The avatar is the sole identity known to the user and the virtual world. It can be an extension of one's self or a complete departure from real life.
b. **Disguise**: It can take on any physical appearance the user desires, allowing for the creation of a fluid and multifaceted identity as opposed to a fixed and singular one. This provides a clear explanation of how individuals present themselves in virtual worlds, adopting multiple identities that can extend across time and space. As a result, the user may come to believe in their "virtual self," realizing it's merely an alternative within a virtual game that can be exited with a simple click of a button. (Nadjia & Laswane, 2022, p. 35)

5. CONCLUSION

The increasing use of virtual and emotive symbols as a means of communication has revolutionized language and communication, adding an emotional and human dimension to digital language. However, the excessive and pervasive use of these symbols threatens language and linguistic communication, particularly in Arab societies. Language is facing a crisis as the use of virtual symbols surpasses linguistic and expressive language, programming individuals' emotions into pre-set molds. This fosters laziness and leads to a decline in language and expression, depriving future generations of learning the correct way to express their emotions clearly. Additionally, the use of colloquial language and the disregard for grammatical rules result in a decline in linguistic and oral skills.

When discussing the nature of language itself and its impact as a digital language, which has become a characteristic of linguistic circulation in digital communication spaces, it has become a language of particular interest. Companies specializing in this field have dedicated themselves to it. The intersection of worlds here creates competition, or rather a linguistic struggle between the world of our practiced language and the world of these emoticons used through social networks. Consequently, this struggle requires an attempt at dominance, which is embodied in the volume of our use of these emoticons compared to the volume of our use of the original language in writing and speech.

The excessive availability of customizing one's avatar through biological options within the application has led to gender dysphoria among avatars, facilitating the manifestation of gender-related psychological disorders in the virtual world. (Saber & Khelfa, The Implications of Cultural Identity and Gender Issues in the Design of Personal Avatars on Facebook, 2022)

The Gulf News article highlighted Facebook's bias and racism regarding personal avatars. The application is accused of beautifying images based on gender stereotypes, such as lightening skin tones and sexualizing female avatars. Even when provided with a fully clothed image of a woman, the app generates results associated with sexual allure and innuendo. Furthermore, the article points out that the app lacks moderation of its technological outputs, posing a significant risk of disseminating disturbing content, including child sexual abuse material. (Haddad, 2022)

Moreover, by manipulating the virtual body of an avatar through suggested masculine or feminine facial features, eyes, hair, body, and clothing, individuals are given the opportunity to excessively express their real gender or non-binary gender, such as transgender individuals who have become more visible in Western societies. This type of avatar and modified imagery empowers them to construct more authentic virtual identities within digital realms

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