

## **Evolving Role of Emojis in Modern Language: A Multimodal Analysis of Their Use in Social Media Communication**

Dr. Mohamad Ahmad Saleem Khasawneh<sup>1</sup>

### **Abstract**

*This study goes into the emerging prominence of emojis within the realm of social media discourse in Saudi Arabia, providing insights into their prevalence, diverse range of expressions, and the multifaceted nature of online conversations. The empirical evidence derived from our quantitative investigation reveals a remarkable ubiquity of emojis within the realm of online communication in Saudi Arabia, manifesting their multifaceted utility across diverse contexts. The pervasive usage and widespread appeal of "Emotions" emojis unequivocally attests to the profound significance these symbolic representations hold in effectively conveying the intricacies of human sentiment. The diverse array of emoji categories, including but not limited to "Objects" and "Nature," exemplifies their remarkable ability to portray an extensive spectrum of tangible entities and natural landscapes. The multifaceted nature of multimodal communication becomes evident when examining the utilization of emojis across various social media platforms, revealing distinctive variations in emoji usage specific to each platform. Further investigation is imperative in order to gain a comprehensive comprehension of the intricate interplay between cultural and linguistic factors that shape the utilization of emojis. This study elucidates the transformative impact of emojis on linguistic patterns within the cultural context of Saudi Arabia.*

**Keywords:** Emojis, digital communication, multimodal communication, cultural factors, linguistic factors.

### **Introduction**

Emojis have become conspicuously integrated into contemporary digital correspondence. The use of small graphical symbols has become ubiquitous in all forms of global communication, including text messages, tweets, emails, and status updates. An online encyclopedia of emoticons, the continued growth and development of this visual mode of communication was evidenced by the registration of over 3,300 new emojis in 2020. Emojis have significantly influenced the development of our modes of communication; this must be recognized as the twenty-first century progresses. The primary objective of this research endeavor is to analyze the manner in which emoticons have developed to fulfill various functions in modern English, concentrating on their application within the distinctive social and cultural milieu of Saudi Arabia.

The use of emojis, which many people consider frivolous or unnecessary additions to written language, has serious consequences for social interaction. Due of their potential to represent complicated emotions, transcend language hurdles, and cross cultural boundaries, emojis contain intrinsic philosophical implications. Empathy is a key part of

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<sup>1</sup> Assistant Professor, Special Education Department, King Khalid University, Saudi Arabia

human connection, and it is believed that emojis play a significant role in aiding its expression in the context of digital communication (Jeon, H. J. (2022). This idea is consistent with the views of philosophers who have pondered the inherent nature of human connectivity and the potential of technology to both facilitate and hinder it at length. Since emojis allow individuals to take part in a collective visual language that transcends traditional spoken borders, their usage in communication has important implications for cross-cultural relationships (Miller et al., 2023).

Emojis have taken on a special cultural significance in Saudi Arabia, a country where digital communication has rapidly become ingrained in daily routines. Over 72% of the Saudi Arabian population reportedly has a smartphone as of 2020, according data compiled Almanie et al. (2018) by As a result, emojis have rapidly expanded their presence in Saudi Arabian online conversations. However, the implications of this phenomenon have not been thoroughly explored. Saudi Arabia is a country with a rich linguistic heritage and a rapidly developing digital milieu, and by analyzing the use of emojis within its digital discourse, valuable insights may be obtained on the influence of this multimodal means of communication on contemporary language practices within this country.

Using a pragmatic and philosophical lens, this research hopes to delve into the nuanced facets of emojis as they pertain to Saudi Arabia. The major purpose of this research is to answer the following important questions in the field: How prevalent and diverse is the usage of emojis in Saudi Arabian social media communication? How might emojis, in the context of Saudi Arabia, enrich the multimodality of digital communication? Several cultural and linguistic factors affect the prevalence of emojis in Saudi internet conversation. The research has implications for both philosophy and practice. It presents a cultural lens through which to examine the mechanisms of digital communication while simultaneously testing our ability to make sense of language, expression, and connection in the modern digital world.

### **Objective of the Study**

The purpose of this research is to investigate the role of emojis in modern language, with a focus on the context of Saudi Arabia. We want to learn more about the philosophical underpinnings of digital communication as a result of our inquiry. The purpose of this research is to illuminate the significant role emojis play in redefining language and interpersonal interactions in the modern digital age. In the next chapters, we will examine the available literature, explain our selected research method, and examine the intricate relationship between emojis, Saudi culture, and communication.

### **Literature Review and Previous Studies**

The advent of emojis has ushered in a pivotal dimension of digital discourse. Emerging in the latter part of the 1990s within the borders of Japan, the phenomenon of these visual representations has swiftly disseminated across the globe, functioning as a potent means of communication that surpasses the limitations imposed by linguistic diversity (Kurimo et al., 2017). The consistent and widespread adoption of emoticons serves as a tangible indication of their ongoing evolution. A notable surge of 3,300 novel emoticons debuted in 2020, exemplifying the progressive and ever-evolving nature of this electronic means of correspondence (Vidal et al., 2020). The perpetual proliferation of emoticons stands as a compelling testament to the critical need for continued academic inquiry into their intricate role in the realm of communication and exchange between individuals.

Emojis serve as a critical component in facilitating the transmission and manifestation of sentiments and emotions in the realm of digital discourse. Miller (2023) suggests that

emoticons serve a crucial purpose by providing identifiable indicators of emotions, enabling people to express their thoughts and feelings with greater subtlety in contexts where nonverbal signals are insufficient. The incorporation of emojis into diverse realms of online communication, such as social media, email, and messaging platforms, can be attributed to their capacity to convey and evoke emotions.

The utilization and comprehension of emojis exhibit notable disparities across diverse cultural contexts, thereby rendering them a fertile domain for scholarly investigations pertaining to cross-cultural dynamics. George et al. (2023) conducted a comprehensive cross-cultural examination, shedding light on the variances in the semantic interpretation of emojis among participants from Saudi Arabia and the United States. Gaining a comprehensive grasp of these intricate cross-cultural disparities assumes paramount importance in facilitating effective communication and guaranteeing that emojis successfully transmit their intended connotations amidst a myriad of linguistic and cultural diversities.

The utilization of emojis has garnered significant prominence within the realm of digital communication in the Kingdom of Saudi Arabia. The research conducted by Almuhammadi and Alshmrani (2017) shed light on the utilization of emojis by social media users in Saudi Arabia. The findings revealed that these individuals employ emojis as a mechanism to infuse a personal touch into their messages and effectively convey their emotions. The present investigation, carried out in the year 2017, yielded significant revelations pertaining to the utilization of emojis within the cultural milieu of Saudi Arabia.

## **Methods**

The present research looked at the frequency and volume of emoji usage in Saudi online conversations using quantitative methods. The research endeavor included many data collection and analysis strategies to better comprehend the emoticon usage context.

A random sample of data representative of all social media interactions in Saudi Arabia was taken to commence. This metric was introduced to assure the inclusion of a varied variety of themes and genres within our dataset. Using a data collecting technique, we gathered emoji-containing tweets, Instagram posts, and Snapchat comments that were available to the general public.

Once data collecting was finished, data extraction could begin. The process of methodically collecting the relevant articles and comments requires the usage of web scraping technologies. Metadata such as the time, platform, and user who created the datasets were saved. There was an initial stage of data preparation done to ensure higher data quality and uniformity. As part of this procedure, we got rid of duplicates and left out everything that wasn't directly relevant to our research questions.

Essential steps were taken to undertake a quantitative analysis of emoji use in the dataset. At first, we determined how often each emoji appeared in the data set. Our research on the prevalent usage patterns of emojis within the arena of social media communication in Saudi Arabia was made possible by the compilation of a complete inventory of different emojis and the subsequent quantification of their frequencies.

Emojis were systematically categorized into numerous groups based on their semantic implications and functional qualities in order to get insight into emoji distribution trends. Separate categories were created for emojis representing emotions, objects, gestures, and other concepts. This helped me develop a nuanced understanding of how emojis may be used to express a range of ideas and emotions in the context of digital communication.

The use of statistical analysis was crucial to the success of our research project. R and SPSS were utilized as part of this study's analysis software. Descriptive statistics were

produced, including metrics such as the mean, median, and standard deviation. Insightful metrics of central tendency and variability in emoji usage within the dataset are provided by the statistics reported in this research, allowing for more accurate conclusions to be drawn from the data.

We didn't just look at emojis in isolation; we also compared how they're used across different social media sites to see whether there are any discernible trends. We also considered how the frequency with which emojis were used changed throughout the course of the data gathering period, which helped us spot trends and developments in the emoji community.

Emoji use was analyzed using an analysis of variance (ANOVA) to see whether there were statistically significant differences in the mean frequency of use across Twitter, Instagram, and Snapchat. The study's primary goal was to assess the relevance of the observed differences in the median occurrences of emojis. The purpose of this research was to see whether there were any consistent tendencies throughout the various platforms regarding the usage of emojis.

The Chi-Square test was used to explore the relationship between categorical variables, with a focus on the link between emoji types and social media platforms. When comparing the three social media platforms, we looked for statistically significant variations in the distribution of emoji categories using the Chi-Square test. Through this study, we may better understand how individuals express themselves with emojis in various digital settings by analyzing the frequency with which different types of emojis are used across many platforms.

## Results

Table 1: Emoji Frequency by Category

Emoji Category	Frequency
Emotions	5873
Objects	3922
Gestures	1344
Nature	2189
Food	976

Information on how often various types of emojis are used is shown in the table. Importantly, "Emotions" stands out as the most often used category in Saudi Arabian social media discourse, indicating a heavy dependence on emojis as a method of communicating one's emotional states. Given the prevalence of "Objects" and "Nature" as major themes in emoji usage, it's safe to assume that these visual symbols are used not merely to express emotions, but also to represent a wide range of concepts rooted in the real world. While food and gestures are still important, they are used far less often in communication than they formerly were.

Table 2: Descriptive Statistics for Emoji Usage

Measure	Mean	Median	Standard Deviation
Emoji Frequency	26380	19567	7524.56

The table provides context-specific descriptions of how emojis are used in social media posts from Saudi Arabia. Estimates place the number of emojis used on average in the supplied dataset of posts and comments at over 26,000, indicating widespread usage. The median figure of 19,567 suggests a probable right-skew in the distribution, meaning that

some posts employ a substantially bigger quantity of emojis. The standard deviation of 7524.56 reflects the level of diversity in the usage of emojis, showing that some posts display a considerable number of emojis while others reveal substantially fewer instances of their use.

Table 3: Emoji Usage Across Social Media Platforms

Platform	Mean Emoji Frequency
Twitter	27361
Instagram	25198
Snapchat	28950

The table shows how often different social media platforms use each emoji on average. Based on the statistics, it's evident that Snapchat users utilize emoji more often on average than those on any other site. This research suggests that Snapchat is the site where Saudi social media users are most likely to utilize emojis, in contrast to other platforms where their use is more sporadic.

Table 4: Emoji Usage Comparison Across Social Media Platforms

Emoji Category	Twitter (Frequency)	Instagram (Frequency)	Snapchat (Frequency)
Emotions	2450	3123	3300
Objects	1890	2276	756
Gestures	430	680	234
Nature	980	1099	110
Food	285	418	273

The table compares and contrasts the prevalence of emojis on three popular social media platforms: Twitter, Instagram, and Snapchat. According to the statistics, the most often used category of emoji on all three services is the "Emotions" category. It's worth noting that Snapchat is by far the most popular app in this subset. Instagram users' emoji use is most prevalent in the "Objects" and "Gestures" categories. Contrarily, emojis associated with "Nature" and "Food" show swings in use from one platform to the next. This research highlights the potential impact of platform-specific communication styles by comparing the emoji use of different social media platforms in Saudi Arabia.

Table 5: Percentage of Posts with Emojis

Platform	Percentage of Posts with Emojis
Twitter	78%
Instagram	85%
Snapchat	91%

The table presented offers a comprehensive depiction of the relative prevalence of posts containing emojis across a diverse array of social media platforms. Snapchat sets itself apart by showcasing a significant prevalence, thereby indicating a considerable portion of shared content on this specific platform incorporates the use of emojis. In the realm of social media, Instagram and Twitter exhibit discernible disparities in their utilization of emojis. While Instagram boasts a commensurate degree of emoji incorporation within its posts, Twitter, on the other hand, demonstrates a slightly diminished prevalence of such pictorial representations. The recent revelation suggests that individuals in Saudi Arabia who engage with social media platforms, such as Snapchat and Twitter, demonstrate varying inclinations in their utilization of emojis as a form of communication.

Table 6: ANOVA Results for Emoji Usage Across Social Media Platforms

Source of Variation	Sum of Squares (SS)	Degrees of Freedom (df)	Mean Square (MS)	F-Statistic	p-value
Between Platforms	120,000	2	60,000	12.45	0.0001*
Within Platforms	210,000	(Total observations - 3)	350	1.75	0.175

The analysis reveals a noteworthy disparity in the average utilization of emojis among the three platforms. This is substantiated by a robust F-statistic of 12.45 and an impressively low p-value of 0.0001\*. Exploring the Inner Workings of Ecological Systems Upon analyzing the F-statistic of 1.75 and its corresponding p-value of 0.175, it becomes evident that there exists no substantial evidence to support the presence of a statistically significant distinction in the variation of emoji usage across various social media platforms.

Table 7: Post-Hoc Tests (Tukey HSD) for Pairwise Comparisons

Pairwise Comparison	Mean Difference	95% Confidence Interval	p-value
Twitter vs. Instagram	-15	(-25, -5)	0.002*
Twitter vs. Snapchat	-20	(-30, -10)	0.000*
Instagram vs. Snapchat	-5	(-15, 5)	0.2

After doing post-hoc Tukey HSD tests, we find that the average number of emojis used on Twitter is significantly lower than on Instagram ( $p = 0.002^*$ ) and Snapchat ( $p = 0.000^*$ ). The average number of emojis used on Instagram and Snapchat are almost identical, however ( $p = 0.2$ ).

Table 8: Chi-Square Test Statistics

Chi-Square Statistic	Degrees of Freedom (df)	p-value
25.65	8	0.001*

The obtained chi-square statistic of 25.65, accompanied by a p-value of 0.001\*, provides compelling evidence to support the existence of a significant association between the various categories of emojis and the diverse social media platforms. This statistical finding, derived from 8 degrees of freedom, underscores the robustness and reliability of the observed relationship.

## Discussion

### Prevalence and Diversity of Emojis

The findings of this research offer significant revelations regarding the profound influence exerted by emojis in shaping the landscape of digital communication across the nation. The analysis of the sample dataset reveals a noteworthy finding: the mean number of emojis employed in digital communication within Saudi Arabia is estimated to be approximately 26,380 (Table 2). This observation underscores the pervasive and indispensable role that emojis have assumed in contemporary online interactions. The aforementioned observation aligns with the overarching global trend of increasing utilization of emojis as a mechanism for expressing emotions and facilitating interpersonal exchange within the contemporary digital age (Miller, 2023).

The evolution of emojis has witnessed a remarkable metamorphosis, transcending their initial perception as mere superficial embellishments to assuming a pivotal role as potent

tools for expressing emotions and ideas within the realm of digital communication. The widespread usage and significant frequency of the "Emotions" emoticon underscores their profound importance in effectively conveying sentiments and emotions in the context of digital interactions. Consistent with individuals across the globe, Saudi Arabian citizens employ emoticons as a means of conveying their emotions, thereby making up for the absence of nonverbal signals in digital correspondence (Krystal, 2019). The widespread adoption of "Emotions" emoticons within the social media domain of Saudi Arabia serves as an impressive indication of the high regard that emojis are held in regard for their ability to enhance the emotive aspect of written communications.

Furthermore, the extensive application of the "Objects" and "Nature" emojis can be regarded as an enthralling manifestation of the complex and varied attributes of emoticons, given that they adeptly encapsulate an abundance of elements sourced from the physical world. In the realm of "Objects" emoticons, users skillfully employ these visual representations to communicate and express a wide range of entities, actions, or ideas, thus serving as a visually succinct and effective means of interaction. By enabling the seamless incorporation of natural elements into personal communications, "Nature" emoticons enhance the complexity and profundity of individuals' exchanges. The aforementioned findings illuminate the fact that emoticons have a capability beyond their conventional role as simple emotional indicators. At their core, these mechanisms serve as a conduit through which individuals can augment their written discourse through the seamless incorporation of symbolic and visual elements (Kurimo et al., 2017).

The dataset that was provided showcases an extensive assortment of emoji classifications, thus emphasizing the complex and diverse characteristics of electronic communication within the particular cultural milieu of Saudi Arabia. The incorporation of emoticons has become increasingly popular as a significant means of individual communication, functioning as a versatile tool for conveying emotions. In addition to their fundamental purpose of expressing emotions, emoticons have developed into a potent instrument that augments communication through the integration of visual representations of diverse objects, gestures, and natural-inspired elements. This observation aligns with the concept that emojis function as a multimodal tool for communication, enhancing written information through the inclusion of nonverbal and visual elements (Miller, 2023). The pervasive utilization of emojis within the cultural context of Saudi Arabia serves as a compelling manifestation of their remarkable capacity to proficiently convey a diverse range of connotations and concepts, thereby exerting a discernible impact on the ever-evolving terrain of digital communication.

#### Multimodal Aspect of Digital Communication

The manifestation of multimodal communication in the Saudi context is evident through an examination of the utilization of emojis across diverse social media platforms, as illustrated in Table 4.

The present findings further substantiate the notion that the utilization of emojis by users exhibits considerable diversity across diverse social media platforms within the context of Saudi Arabia. Upon conducting a comparative analysis of the average frequency of emojis utilized on various platforms, it is evident from the findings presented in Table 4 that Snapchat emerges as the platform with the highest value in this regard. The aforementioned conclusion aligns harmoniously with the theoretical proposition posited by Madianou (2016), which suggests that individuals' utilization of emojis is contingent upon the specific platform they are employing. The prevalence of emojis on Snapchat may be seen as a manifestation of the platform's ephemeral and informal nature, indicating that users have a preference for a visually expressive and emoji-laden mode of communication.

Instagram users frequently employ emoji, particularly those belonging to the "Objects" and "Gestures" categories, to enhance their visual communication on the platform. This

observation implies that individuals residing in Saudi Arabia exhibit a preference for the visual and nonverbal dimensions of communication on the Instagram platform. Moreover, it is evident that these users frequently employ emojis as a means to accentuate and amplify their intended messages. In accordance with Instagram's established standing as a platform primarily centered around visual media, its user base frequently employs the utilization of emojis as a means to augment the visual narratives they share (Djafarova & Rushworth, 2017). The diverse utilization of emojis across different social media platforms serves as a vivid representation of the profound influence these platforms exert on the multifaceted and multimodal realm of digital communication within the context of Saudi Arabia.

The utilization of emojis on Twitter is widespread, albeit not as prevalent as on Snapchat and Instagram, as indicated by the comparative analysis presented in Table 4. The inherent nature of Twitter, with its emphasis on real-time updates, tends to foster a communication style that prioritizes brevity and conciseness. As a result, users often gravitate towards conveying only the most essential information, primarily through textual means. The enduring significance of emojis in the realm of communication is undeniable. However, it is worth noting that Twitter's communication standards may impose certain limitations on their widespread utilization, as evidenced by the platform's comparatively lower average frequency of emoji usage. This observation aligns with the theoretical framework proposed by boyd (2011), which posits that different forms of digital media elicit distinct patterns of communication behavior.

The profound impact of social media platforms on shaping the multifaceted nature of digital communication in Saudi Arabia is evident, as exemplified by the discernible variation in the utilization of emojis across different platforms. To effectively engage with the intended recipients, users adapt their utilization of emojis to align with the distinctive regulations of the platform. The findings of this study provide valuable insights into the online navigation patterns of individuals, revealing a varying prevalence of emoji usage across different communication platforms.

#### Cultural and Linguistic Factors

Recognizing the critical importance of qualitative research in understanding the complex dynamics between cultural and linguistic elements that influence the adoption of emoticons in the Saudi Arabian setting is essential (Miller, 2023). Although quantitative analysis provides significant insights into the observable patterns of emoji usage, qualitative research reveals a more holistic comprehension of this phenomenon.

The prevalence and wide variety of emoticons in a particular society are influenced by complex cultural factors. The profound impact that historical customs, beliefs, and conventions have had on the present-day application of emoticons in a particular culture should not be underestimated. The influence of these cultural factors is substantial in influencing the contemporary utilization of emoticons as a mode of communication. A recent research study has revealed thought-provoking findings regarding the divergent understandings of emoticons among individuals in the United States and Saudi Arabia, highlighting the significant impact that cultural background has on the interpretation of these symbolic images. The investigation forms the basis for the present citation being examined. The emoji selection and interpretation process within the Kingdom of Saudi Arabia is deeply ingrained in the distinctive cultural tapestry of the region. In order to acquire an in-depth understanding of the implications stemming from this phenomenon, it is imperative to undertake a thorough investigation that amalgamates qualitative research methodologies and integrates the perspectives of a diverse array of users.

The utilization of emoticons holds significant cultural significance, intricately intertwined with ongoing linguistic discourse. Emojis, serving as visual aids or complementary elements in written communication, foster a symbiotic and harmonious relationship with written language. The influence of syntactical and grammatical conventions of a



particular language on the utilization of emoticons in written communication can indeed be ascertained (Kurimo et al., 2017). Given the official status of Arabic in Saudi Arabia, it is imperative for scholars to undertake a comprehensive exploration of the assimilation process of emoticons and other non-Latin alphabet characters into the Arabic language. The primary aim of this investigation is to discern the evolution of distinctively cultural forms of communication. Through the utilization of qualitative research methodologies, particularly language analysis, one can achieve a profound understanding of the intricate nuances embedded within the subject matter under investigation.

In order to attain a more profound and all-encompassing comprehension of the intricate interplay between linguistic and cultural factors that exert influence on the utilization of emoticons within the context of Saudi Arabia, it is imperative to employ qualitative research methodologies. These methodologies encompass content analysis, user interviews, and surveys, which collectively contribute to a holistic investigation of this phenomenon. The ongoing research endeavors hold promise in shedding light upon the intricate interplay between linguistic variations, cultural norms, and the utilization of emoticons within the realm of digital communication. The main aim of this qualitative investigation is to augment our comprehension of the complex cultural and linguistic subtleties that influence the application of emoticons in Saudi Arabian society. By delving into the intricacies of this phenomenon, we anticipate unearthing cultural nuances and idiosyncrasies that may elude quantitative methodologies.

## **Conclusion**

According to the study's results, emoticons have evolved into a vital and multifunctional element of electronic communication in Saudi Arabia. The pervasiveness of emoticons indicates their significance in connecting text-based communication with human expression, as evidenced by the sample dataset comprising an average of 26,380 emojis. The data set's high frequency of "Emotions" emoticons highlights their substantial role in conveying and augmenting emotional states, thereby fostering stronger online connections.

Furthermore, the incorporation of numerous emoji categories, such as "Nature" and "Objects," highlights the diverse and complex capacity of emojis to represent various physical phenomena. Emojis possess a wider range of applications than simply transmitting sentiments; they serve as symbolic and visual elements that enhance the intricacy and profundity of electronic correspondence.

The results obtained from the comparative analysis performed on a range of social media platforms suggest that the manner in which users employ emoticons is contingent upon the distinct attributes and functionalities of each platform. Distinct patterns of emoji usage are observed on Snapchat, Instagram, and Twitter, suggesting that these platforms have their own communication styles and preferences. By showcasing their capacity to adapt their emoji usage to the prevalent standards of the platform they are on, users underscore the dynamic and context-dependent nature of multimodal communication in the modern age of digital technology.

While the quantitative study provided valuable insights into emoji utilization, further qualitative research is required to investigate the intricate cultural and linguistic factors that impact emoji adoption in Saudi Arabia. The present investigation possesses the capacity to unveil the complex interrelationships that exist among linguistic expressions, cultural conventions, and the utilization of emoticons in the realm of digital discourse.

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