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BEYOND TRENDS: EXPLORING THE LINGUISTIC FUNCTIONS OF HASHTAGS IN DAILY COMMUNICATION

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ABSTRACT

Social media users have been increasingly creating and using hashtags in their uploaded content on various social media platforms. Despite the abundance of research on social media language, hashtags have not yet received ample attention from linguistic scholarship. In contrast, Twitter hashtags have been the subject of much research. This research aims to explore the linguistic function of hashtags and their impact on everyday language use, with a focus on understanding their role in online and offline communication. The study employs a combination of analytical methods, including network analysis, thematic and semantic analysis, regression analysis, and comparative corpus studies, to offer a multifaceted understanding of hashtags. The implications of this research have several significant meanings for the changing landscape of language, technology, and communication norms. Most obviously, the insertion of hashtags into oral, offline communication indicates a profound change in the way in which language is being influenced by online interaction. As hashtags evolve into more complex, meaning-laden tools, their use across demographics tells us something deeper about societal shifts in language perception and social connection. Future research should look more closely at how these digital symbols impact long-term language change, identity formation, and collective action.

KEYWORDS: Linguistic Innovations, Hashtag, Social Media, Language.

1. INTRODUCTION

Social media users have been increasingly creating and using hashtags in their uploaded content on various social media platforms. Defined as "a string of characters preceded by the pound symbol #" (Caleffi, 2015), the hashtag enables users to add metadata to their posts, thus increasing the probability that their posts will be found and followed (Caleffi, 2015). This has rendered hashtags a vital element to boost online presence and exposure. This tagging practice has been described as 'ambient affiliation' by Zappavigna (2011), meaning that the users may not have communicated with one another directly. Nevertheless, they are bound together due to their shared interests in similar subject matters. Indirect interaction with each other builds a feeling of belongingness for scattered social media users.

In accordance with Zappavigna (2015), the employment of hashtags has indicated a shift away from individuals' necessity to search for information towards searching for other communities of shared values. Hashtags were created to label messages placed on social media websites, like Twitter, Facebook, YouTube, and Instagram (Potnis & Tahamtan, 2021). The change indicates the increasing significance of communal identity in online communication. Twitter hyperlinked hashtags in July 2009, where clicking on them took the user to posts bearing that same hashtag (Pasho, 2017). This change immensely boosted user participation and subject-related interaction.

Ever since the hashtag feature was officially integrated into the Twitter search platform in 2009, hashtags have become a 'folksonomy' for individuals to comment, convey their emotions, and communicate with one another (Piatek, 2020). Although originally released to categorize the subject of a post, hashtags have come to have various roles, including conveying emotions, backing movements, marketing and advertising, as well as serving as disclaimers. This multifunctionality has made hashtags strong rhetorical and cultural devices. Hashtags are born in the digital world but have even transcended to the offline world because they can now be commonly seen in television adverts, newspaper titles, and protest banners, where they are employed to highlight messages (Gaputina & Budnik, 2020). In the case of spoken hashtags, Scott (2018) holds that participants exchange physical context and are exposed to non-verbal cues, limiting the functions that hashtags perform. The hashtag transition from screen to speech is an expression of their socio-linguistic adaptability. Developed in 2007, hashtags aim to assist users in accessing information efficiently on Twitter. With evolution, Instagram has emerged as the primary platform for sharing hashtags (Giaxoglou, 2018). This change highlights the changing dynamics of platform-based user engagement.

It is now quite normal to find an Instagram post with several hashtags attached to it. Individuals also begin to employ hashtags for different purposes, and this phenomenon indicates the expanded role of the hashtag in both personal and business expression (Rauschnabel et al., 2019). Brands also employ hashtags to market their goods, e.g., #mycalvins and #shareacoke. In addition, hashtags are heavily involved in different political movements, such as #BlackLivesMatter and #notmypresident (Taamneh & Ghazo, 2021). These applications demonstrate how hashtags serve as drivers of identity expression and activism. Even more intriguingly, hashtags have transformed into a new-age language: Individuals have devised numerous hashtags, the meanings of which don't exist in natural language. This linguistic innovation represents a transformation towards platform-specific vernaculars (Zhang, 2019). In another example, #tbt (throwback Thursday) means the respective photo was captured from bygone days. Such examples illustrate how hashtags are both temporal indicators and cultural signs. This study seeks to investigate the linguistic role of hashtags and their influence on daily language use, specifically examining their role in online-offline communication. The research utilizes an amalgamation of analytical approaches, such as network analysis, thematic and semantic analysis, regression analysis, and comparative corpus studies, to provide a multidimensional picture of hashtags.

This study addresses the following key research questions: (1) How do hashtags function linguistically in both online and offline communication? (2) To what extent do demographic factors such as age, gender, and education influence hashtag use? (3) How does user engagement with hashtags shape their perception as meaning-making tools?

2. LITERATURE REVIEW

Several researchers have explored hashtags in various fields like marketing, public debates, information dissemination, and sociological dynamics. Yet, though the digital language has been extensively studied, the linguistic aspects of hashtags are relatively understudied. This presents

an important opportunity for additional linguistic investigation of their structure and deployment. Whereas Twitter hashtags have been subject to significant scholarly inquiry (Evans, 2016; Page, 2012; Shapp, 2014; Small, 2011; Wikström, 2014; Zappavigna, 2011, 2015), Instagram hashtag research remains comparatively nascent, providing rich soil for research due to the site's shifting communicative context. In alignment with the purposes of this study, the review of literature focuses on two fundamental areas of examination: the morpho-syntactic structures of hashtags and their pragmatic functions. These two dimensions complement each other and present a holistic explanation of how hashtags work as tools of language in modern communication. Spina et al. (2024) experimented with hashtagging as a "novel morphological process for word formation by examining a corpus of online and offline English and Italian hashtags. The researcher proposed an initial taxonomy of eight categories of English hashtags. This classification assists in elucidating the structural patterns occurring in hashtag creation. The researcher has explored the characteristics of these newly coined words and their structure. As per the researcher, hashtagging is an emerging productive method of word-making that can potentially be employed in order to tie a sequence of words together so as to generate new linguistic structures. This method can even result in a reclassification of conventional word and part-of-speech categories. Caleffi's (2015) framework considers the number of words within the hashtag and its position within the post, whether it is at the start, center, or end. This position-based analysis provides evidence of functional variation based on the location of the hashtag. The items that come after the "#symbol" are also examined, be they acronyms, letter-number combinations, symbols, or words and phrases. Maity et al. (2015) characterized hashtags as "one of the most important linguistic units of social media" and noted the necessity of studying them from a linguistic point of view. Their structural variability makes it more complicated to express meaning. They analyzed the development of hashtags' central linguistic characteristics in a two-year quantitative study. The researchers learned that many hashtags 'coalesced' or merged to create new ones quickly, which have been referred to as 'Twitter idioms'. These swift changes highlight the dynamic nature of online language habits. They also discovered that the merged new hashtag tends to be considerably more popular than when used separately. Based on their research, individuals choose to use the same hashtag across their tweets to convey strong feelings or enthusiasm. This trend indicates the affective strength inherent in uniform hashtag use.

Lin (2017), on the other hand, feels that "hashtags encourage people to create their own language". They are "uncontrollable but creative," and they are very easy to produce. This autonomy of production has led to the development of digital vernaculars. This blending hastens the propagation of new expressions in online communities. Although they will never be grammatically or syntactically correct, "this Internet slang has become mainstream language" (Lin, 2017). Maity et al. (2016) also discovered that the coalescing phenomenon takes place more frequently in social media than in regular written language due to informality and space constraints. These findings indicate the distinction between digital and conventional linguistic norms.

Many scholars, including Boellstorff (2012), Burns (2017), Lupton (2015) and Meikle (2016), have observed that hashtags are now used for a wide range of purposes—from irony to marketing—rather than solely for their original function.

Zappavigna (2011), in research, discussed the role performed by hashtags as technologically discursive devices. This evolution indicates the growing social and discursive significance of hashtags. The researcher used the term 'searchable talk' to refer to hashtags because they add 'searchability' as a community-forming linguistic practice. The act of hash tagging often carries with it an implicit expectation that others will adopt the same tag, thereby contributing to the creation of a shared digital taxonomy or what is frequently described as a cyber community built around collective tagging. This practice reflects the inherently social nature of digital discourse and the collaborative dynamics embedded in online meaning-making.

The definition 'searchable talk' is then assigned as "online discussion in which individuals actively make their conversation more discoverable" (Zappavigna, 2011). Small (2011) classified hashtags into informing and commentary hashtags (judgments/opinions) and found that about 71% of Twitter messages were informing hashtags. This classification helps in the comprehension of the functional intention behind using hashtags. However, Zimmer (2011) concentrated on hashtag use for irony, specifically "as a vehicle for self-directed sarcasm". The researcher declared that "the convention of the 'hashtag' has been pressed into the

service of self-mockery." Hashtag irony brings a reflexive element to online discourse that works as a kind of meta-commentary, usually indicating sarcasm, critique, or knowingness. Zimmer (2011) stressed the importance of more rigorous examination of these ironic hashtags, especially those that are racially or class-inflected self-mockery, because they can expose subsurface cultural narratives and necessitate deeper examination. Expanding on syntactic formulas, Page (2012) suggested a typology of hashtags according to surrounding clause structure into three categories: declarative, imperative, and interrogative. This framework not only clarifies usage but also highlights how linguistic form aligns with communicative intent. Page further noted that public figures employ hashtags strategically for self-branding, particularly in posts linked to professional roles or national events. Such use underscores the deliberate role of hashtags in crafting and managing online identity.

"Professional expertise search terms stress the author's identity as a practitioner in a given field" (Page, 2012). The findings indicate that celebrities strategically employ hashtags as promotional tools, leveraging them to encourage audiences to engage with television programs or consumer products, thereby extending their influence beyond digital platforms and reinforcing their public image in offline spaces. This is in accordance with larger patterns of online self-promotion and commodification. Wikström (2014) applied Speech Act Theory to analyze the communicative functions of hashtags and identified eight of them, such as playing games, parenthetical explanations, as well as emotive, emphatic, and humorous functions. Shapp (2014), on the other hand, studied Twitter hashtags from the perspective of discourse narrative theory, specifically those with 'commentary' tags. These methods highlight the complexity of hashtag communication. Hashtags often serve to introduce an alternative, typically evaluative, layer of meaning to the primary content of a post. A further distinction is made between those hashtags that are embedded within the syntactic structure of a message and those that stand apart as extra-sentential elements, offering commentary or emphasis from outside the main clause. This distinction shows different levels of integration into sentence-level meaning.

As identified by Goodwin (2015), the "hashtag soon changed from its initial application to become a means for individuals to provide social commentary, eliminate sarcasm, and share other stories on their social media updates". Scholars suggest that hashtags serve as an accelerated mode of communication, catering to the immediacy-driven preferences of younger users who often favor swift interactions and concise expression over prolonged engagement. This effectiveness renders hashtags perfect tools for modern digital expression. "Utilization of hashtags not only accelerates that process but also accelerates online communications and substitutes more personalized and better thought-out responses and stories" (Goodwin, 2015; emphasis added). Baghirov et al. (2016), though, surveyed gender differences in using Instagram hashtags and established that females utilize more emotive and positive hashtags, while males favor utilizing more informative and negative hashtags. These signals underlying sociolinguistic structures are informed by gendered discourse. Scott (2018) has examined the employment of spoken hashtags through the lens of relevance theory as a novel means of communication whereby an element of written language, i.e., punctuation marks, has penetrated the spoken realm." According to the author, in marking a topic, experiential hashtags not just act as an instrument of searching, but also as a contextualizer, allowing the semantic field to be applied in interpreting a definite message. This leads to the merging of written and spoken modalities in contemporary language use. This study intends to investigate hashtags' linguistic role and influence on common language use, with a particular emphasis on their contribution to online and offline communication.

3. RESEARCH METHODOLOGY

This study aims to examine the linguistic roles that hashtags perform and how they shape everyday language practices, paying particular attention to their functions across both digital platforms and face-to-face interactions. The study employs a combination of analytical methods, including network analysis, thematic and semantic analysis, regression analysis, and comparative corpus studies, to offer a multifaceted understanding of hashtags. This study adopts a quantitative research design aimed at exploring the linguistic functions of hashtags and their influence on both digital and face-to-face communication. To gain a comprehensive perspective, the research integrates various analytical tools such as network analysis, thematic and semantic interpretation, regression modeling, and comparative corpus techniques. The quantitative approach, supported by structured questionnaires featuring closed-ended

items, allowed for focused investigation within a specific scope, facilitating precise measurement of patterns and trends related to hashtag use. The questionnaire was administered to 300 English language learners.

A quantitative method of data collection has been used in this study. A descriptive analysis approach was employed to interpret the data, with responses to each question tallied and converted into percentages. Data collection was carried out using a questionnaire designed to elicit relevant insights. The responses were reviewed thoroughly to identify emerging categories aligned with the study's objectives. These were then organized thematically to support the intended analytical direction.

4. RESULTS AND INTERPRETATION

For this study, the following research hypotheses were framed:

H01: The frequency of hashtag usage has no significant relation with its adoption in offline conversations.

H02: There are no significant differences in hashtag adoption across demographic groups.

H03: User engagement with hashtags (likes/shares/comments) is not associated with their perception of hashtags as meaning-making tools.

These hypotheses were tested using various tests, and the results of the same have been presented below with the interpretation:

H01: The frequency of hashtag usage has no significant relation with its adoption in offline conversations.

Table 1: Correlations

		Adaptability	Hashtag Usage and Perception
Adaptability	**Pearson Correlation**	**1**	**.831****
	Sig. (2-tailed)		**.000**
	N	**300**	**300**
Hashtag Usage and Perception	**Pearson Correlation**	**.831****	**1**
	Sig. (2-tailed)	**.000**	
	N	**300**	**300**

According to the above correlation outcomes, as shown in Table 1, it can be observed that the frequency of hashtag usage has a strong and significant positive correlation with its offline usability. The value of the Pearson correlation coefficient is.831, which is very high, and the value of significance (p =.000) is significantly less than the typical threshold level of 0.05. This clearly shows that people who use hashtags most in their online interactions are also likely to do the same in their offline or face-to-face interactions. This finding suggests that hashtag use for most people has transcended the online world and has become incorporated into spoken discourse. The strong correlation identifies that participants who actively employ hashtags on the internet are also likely to employ them in offline communication. This type of usage demonstrates a confluence of the digital and offline worlds, where online language is no longer limited to computer screens but has permeated daily interpersonal communication.

This finding contradicts the evidence that hashtags are merely digital tags, suggesting, on the contrary, that they are being redirected to serve as communicative tools of expression, employed to signal humor, stress, or commentary in person-to-person conversation. This instance is indicative of a larger cultural movement, wherein linguistic forms of the digital sphere are shaping and altering actual conversational behaviors. Hence, the null hypothesis, which had suggested that there is no significant correlation between online hashtag use and offline linguistic behavior, can be safely rejected on the basis of the evidence presented by the data.

H02: There are no significant differences in hashtag adoption across demographic groups.

Age: Table 2: Crosstab.

:		Hashtag Usage and Perception						Total
		2.57	2.71	3.00	3.14	3.29	4.00	
Age	18–24 yrs	20	0	40	10	10	10	90
	25–34 yrs	10	10	10	20	0	0	50
	35–44 yrs	20	10	10	20	10	10	80
	45–54 yrs	10	10	0	0	10	10	40
	Above 55yrs	0	0	30	10	0	0	40
Total		60	30	90	60	30	30	300

Table 3: Chi-Square test

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	152.593[a]	20	.000
Likelihood Ratio	194.207	20	.000
Linear-by-Linear Association	.425	1	.514
N of Valid Cases	300		

As inferred from the results of the Chi-square test shown in Table 3, it is evident that hashtag adoption varies remarkably across ages. The p-value is less than 0.05, indicating that age is a significant factor in determining how people see and utilize hashtags. On reviewing the crosstab, one can see that the younger group (18–24 years old) is most engaged in embracing hashtags, mostly congregating at the mid-to-high usage rating, with many scoring 3.00. This is to be expected because younger digital natives, who have been raised with

social media platforms, will feel more at ease incorporating hashtags into their dialogue. Compared to the former, however, the 25–34 demographic exhibits a more evenly distributed frequency along the scale, although at generally lower usage levels. Perhaps this represents the transition to professional fields of engagement, in which more formalized styles of communication predominate over loose, hashtag-influenced use. Most significantly, however, are the higher bands of usage from which the older age ranges—the 45–54 and the 55-and-over—substantially fall short. This implies a fairly conservative use of language among these communities, where hashtags might neither come naturally nor be required in their communicative strategies. The findings strongly support empirically rejecting the null hypothesis that age does not play a significant role in the use of hashtags. The evidence confirms that age is a determining factor, affecting the level of adoption and the degree of familiarity with hashtags in communication across different age groups.

Gender: Table 4: Crosstab.

		Hashtag Usage and Perception						Total
		2.57	2.71	3.00	3.14	3.29	4.00	
Gender	Male	30	0	40	50	10	20	150
	Female	30	30	50	10	20	10	150
Total		60	30	90	60	30	30	300

Table 5: Chi-Square Tests.

	Value	df	Asymp. Sig. (2-sided)
Pearson Chi-Square	64.444[a]	5	.000
Likelihood Ratio	78.609	5	.000
Linear-by-Linear Association	9.823	1	.002
N of Valid Cases	300		

As Table 4 shows, from the above Chi-square findings, it can be easily seen that there are gender-based differences in hashtag adoption and perception. The Pearson Chi-Square statistic of 64.444 with a significance level of p =.000 shows that the differences between the ways males and females use hashtags are statistically significant. If we examine the crosstab, the contrast is even more evident. Males demonstrate a robust presence in the higher perception categories—especially at 3.14 and 4.00—which indicates that most of them perceive hashtags as being a functional and possibly an integral component of internet communication. Indeed, most males gave high ratings for their perception and usage of hashtags, which indicates confidence and facility in embracing the digital tool. By contrast, female responses are more spread out across the perception scale. While many female participants concentrate around the midpoint score of 3.00—meaning a balanced or cautious approach—there is also a significant representation at lower score points like 2.57 and 2.71. This spread might suggest a more hesitant or ambivalent approach to using hashtags by female respondents. The variation in the answers may be due to varying digital participation habits or the effects of social norms and expectations governing gendered internet habits.

Since the findings are statistically significant, the null hypothesis that gender has no bearing on hashtag adoption and perception may be safely discarded. The research results strongly imply that gender indeed plays a key role in forming hashtag attitudes by presenting subtle but recurring differences in online communication behavior between male and female respondents.

Educational Level: Table 6: Crosstab.

		Hashtag Usage and Perception						**Total**
		2.57	**2.71**	**3.00**	**3.14**	**3.29**	**4.00**	
Education Level	**High School**	**30**	**16**	**32**	**34**	**14**	**16**	**142**
	Bachelor's	**12**	**6**	**30**	**8**	**8**	**12**	**76**
	Master's	**18**	**8**	**28**	**18**	**8**	**2**	**82**
Total		**60**	**30**	**90**	**60**	**30**	**30**	**300**

Table 7: ChiSquare Test.

	Value	**df**	**Asymp. Sig. (2-sided)**
Pearson Chi-Square	**19.034[a]**	**10**	**.040**
Likelihood Ratio	**21.443**	**10**	**.018**
Linear-by-Linear Association	**1.937**	**1**	**.164**
N of Valid Cases	**300**		

The Chi-square analysis shown in Table 7 regarding education level and hashtag usage reveals that there are indeed statistically significant differences in hashtag adoption across educational backgrounds. The Pearson Chi-Square statistic of 19.034 with a p-value of.040 is just below the traditional.05 cut-off, which enables us to reject the null hypothesis. That is, people with varying educational levels have a tendency to understand and utilize hashtags differently. The Chi-square test by educational qualification indicates a significant trend in how hashtags are perceived and utilized. Looking at the crosstab results, one can see that high school-educated participants have the most varied range of responses with fairly high frequencies in the higher categories—most notably at mean scores of 3.14 and 4.00. By contrast, those with a bachelor's degree are more tightly grouped in the middle of

the scale, particularly around the score of 3.00. This is a more measured or balanced style of using hashtags, perhaps showing awareness of both formal and informal online conventions. Master's degree holders, however, show a definite trend towards the lower side of the perception scale, with far fewer responses in the upper usage bands. This focus in the lower half suggests a more conservative approach, possibly influenced by increased academic exposure and a greater tendency towards formal communication habits. Although the observed differences are not drastic, they are statistically significant and indicate a complex relationship between educational background and digital expression. The results indicate that hashtag adoption is not simply a matter of online culture or trendiness but is subtly affected by academic orientation, which can influence one's level of comfort with informal or stylized digital language.

H03: User engagement with hashtags (likes/shares/comments) is not associated with their perception of hashtags as meaning-making tools.

Table 8: Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.976[a]	.952	.952	.08653	.952	5924.387	1	298	.000
a. Predictors: (Constant), User Engagement with Hashtags									
b. Dependent Variable: Hashtag Usage and Perception									

Table 9: ANOVA.

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	44.360	1	44.360	5924.387	.000[b]
	Residual	2.231	298	.007		
	Total	46.592	299			
a. Dependent Variable: Hashtag Usage and Perception						
b. Predictors: (Constant), User Engagement with Hashtags						

Table 10: Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.184	.037		4.905	.000
	User Engagement with Hashtags	.927	.012	.976	76.970	.000
a. Dependent Variable: Hashtag Usage and Perception						

Table 11: Residual Statistics[a.]

	Minimum	Maximum	Mean	Std. Deviation	N
Predicted Value	2.5664	4.0223	3.0429	.38518	300
Residual	-.11679	.18991	.00000	.08639	300
Std. Predicted Value	-1.237	2.543	.000	1.000	300
Std. Residual	-1.350	2.195	.000	.998	300
a. Dependent Variable: Hashtag Usage and Perception					

The regression analysis offers strong and statistically significant evidence of a relationship between user activity with hashtags—measured through indicators like likes, shares, and comments—and their understanding of hashtags as meaning-making tools. The robustness of this correlation is evident through the R value of.976 and an R Square value of.952, demonstrating that the vast majority of 95.2% variance in hashtag perception is explained through user engagement itself in Table 8. This exceedingly high explanatory strength underlines the profundity of digital interaction influence over the understanding of hashtag usability.

Further confirming this result, the ANOVA test results, as shown in Table 9, in an F-statistic of 5924.387 with a p-value of.000, making the model extremely significant. Breaking down the coefficients, the unstandardized coefficient (B =.927), as shown in Table 10, with an extremely high standardized beta of.976 affirms a strong positive correlation as shown in Table 9. Essentially, the higher the level of interaction with hashtags, the more powerful the sense that such symbols possess communicative and contextual meaning, far beyond being decorative or fashionable items.

Moreover, the regression constant is statistically significant ($p < .001$), but the most significant finding is the large effect of engagement on perception. The reliability of the model is also confirmed by residual statistics, as shown in Table 11, such as a low standard error of.08653 and a pattern of normally distributed residuals. Collectively, these results strengthen the validity and predictive power of the model, confirming user engagement as a determining factor for the construction and appreciation of hashtags in online discourse.

In simpler terms, hashtags aren't just passive tags anymore—they are seen as meaningful digital tools, especially by those who actively engage with them. This analysis completely rejects the null hypothesis and instead suggests that in the eyes of the active digital user, hashtags have evolved into communicative symbols that carry context, emotion, community, and voice.

5. DISCUSSION

The Statistical analysis carried out in this study illuminates the changing role of hashtags within

virtual and offline modes of communication. The strong positive correlation (r =.831, p <.001) between the rate of hashtag occurrence and its mention in offline discourses shows how hashtags have shifted from their point of origin as online features into an integral part of the quotidian spoken discourse. This verifies Irshad's (2022) assertions on the ways hashtags within offline spaces activate context-dependent meaning, as communicative shortcuts conveying implied commonalities of knowledge or emotions. Having originated as a mechanism to order online material, the hashtag today has turned into a metaphor of communal experience, comedy, and identity—effortlessly implemented in offline discourses, movements, elections, and banter.

The impact of age as a predictor of hashtag use is also statistically significant, with the Chi-square test outcomes (p <.001) showing significant differences across generations. The younger group, especially those aged 18–24, has the highest degree of familiarity and usage, which is consistent with their saturation in social media environments since young adulthood. This is supported by the work of Lin et al. (2024), who observed that younger users make use of hashtags to gain visibility, participate in local events, or mark affiliation with current trending themes. Conversely, the comparatively lower rates of usage across older age cohorts could be attributed to variations in digital proficiency and entrenched communication habits. Such intergenerational differences also partly mirror broader sociocultural trends imposed by technology access and familiarity.

Differences based on gender also emerged in the use of hashtags. According to the data, men use hashtags more frequently as functional aspects of communication, most commonly related to status signalling or content categorization. This is echoed by Lee et al. (2018), whose research indicated that male users are more likely to use hashtags for self-presentation or information-sharing. Female users, on the other hand, tended to use hashtags less for emotional expression, group identity, or social solidarity. Such differences, though flexible, hint that gendered expectations and online socialization impact the way people participate in hashtag culture—dictating their objectives, tone, and usage frequency according to wider norms. Baghirov et al. (2016) reported similar gendered patterns on Instagram, where males favored informative hashtags and females used them for expressive or affective communication. This correspondence underlines that gender not only shapes digital participation but also reflects broader sociolinguistic norms in online discourse.

Education also added to hashtag variation, as seen through substantial variation with academic level (p =.040). High school graduates had the most varied patterns, which may be attributed to fewer limits imposed by conventional writing form and a better willingness to embrace changing digital vernaculars. Contrarily, postgraduate-educated participants displayed more cautious and ordered use, which is likely due to professional demands and an enhanced sensitivity towards digital footprints. These results resonate with Lee et al. (2018), who also highlighted the moderating effect of education on digital language use.

The regression model provides more insight into the predictive function between user engagement and the perceived communicative value of hashtags. The model, which has an R Square of.952 and p <.001, shows that 95.2% of the variance in hashtag perception can be accounted for by how extensively users interact with them online. This strongly implies that users who engage more with hashtags are also likely to perceive them as meaningful communicative tools rather than aesthetic tags. This aligns with Zappavigna's (2011, 2015) concept of 'searchable talk,' in which users employ hashtags to foster communal identity and shared meaning. Similarly, Rauschnabel et al. (2019) found that active participation in hashtag use enhances users' sense of belonging and communicative purpose, supporting the conclusion that engagement deepens the semiotic power of hashtags. Lin et al. (2024) also corroborate this, pointing to user motivations such as self-promotion and information-seeking as central to both engagement and perception.

This transformation from technical device to communicative sign is a deeper change in the way language functions in digital environments. Hashtags are not fixed signs anymore; they are liquid, culturally charged semiotic tools that express identity, opinion, and social affiliation. Among digital natives, particularly, hashtag fluency serves as a sign of cultural literacy—a skill to encode and decode meaning in shorthand, frequently with cleverness and accuracy.

This study demonstrates how hashtags have evolved from simple metadata to powerful tools of communication—transcending the boundary between online communication and offline interaction. Age, gender, education level, and usage behavior all influence how people view and use hashtags, highlighting the sociolinguistic richness of contemporary communication. These findings not only assist in charting present digital practice but

also indicate possibilities for hashtags to function as tools for cultural unity, activism, and even educational change. Longitudinal studies in the future could investigate their impact on language change and their potential to create communities, identities, and social movements in both digital and physical spaces.

Overall, these findings highlight the transformation of hashtags from digital markers to multidimensional linguistic tools and cultural symbols, paralleling earlier theoretical frameworks while extending them into the offline domain. Hashtags no longer simply label content—they act as linguistic bridges between individual expression and collective digital identity. This study therefore reinforces and extends previous scholarship by demonstrating that the linguistic functions identified in online contexts by scholars such as Zappavigna (2015) and Wikström (2014) now operate seamlessly across both digital and spoken communication.

6. Research Implications and Conclusion

The implications of this research have several significant meanings for the changing landscape of language, technology, and communication norms. Most obviously, the insertion of hashtags into oral, offline communication indicates a profound change in the way in which language is being influenced by online interaction. What began as a technological feature of content categorization has now become part of cultural expression and everyday conversation. This is important to both linguistic researchers and communication scholars because it shows an increasing blurring of boundaries between digital shorthand and older forms of speech. Hashtags are not simply linguistic add-ons; they are emerging technologies of social embedding, able to encode identity, stance, and affiliation in both effective and powerful ways.

Age-based variations in hashtag usage further reveal how different generations are adjusting to the rapid digitalization of language. Younger folks are clearly at the forefront, taking up hashtags seamlessly as part of their linguistic identity. This demographic not only uses hashtags for grouping, but also to position themselves within wider cultural narratives, causes, and trends. By contrast, the more staid usage across older populations indicates that digital linguistic accommodation is neither universal nor necessary—it has to be contextualized in a wider picture of generational experience, literacy, and platform knowledge. For educators and digital policy makers, this highlights the necessity of age-sensitive approaches when designing online content or outreach initiatives.

The gendered nature of hashtag behavior also provides valuable insight into how digital spaces reflect and reproduce broader social dynamics. Male users' tendency to use hashtags for visibility and branding reflects competitive or performative norms, whereas female users' emphasis on emotional resonance and community points to the role of digital platforms as spaces for relational bonding. These differing uses reflect not only personal choices but also larger cultural cues and gendered expectations around communication.The association between educational background and hashtag adoption suggests that both formal and informal communication norms are shaping language use on digital platforms. While those with higher educational backgrounds may monitor their online presence due to professional expectations, others engage more freely, contributing to the linguistic creativity that defines digital culture. Future research should examine more closely how these digital symbols influence long-term language change, identity formation, and collective action.

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