Angles

New Perspectives on the Anglophone World

12 | 2021

COVID-19 and the Plague Year

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Electronic version

URL: <https://journals.openedition.org/angles/4489>

DOI: 10.4000/angles.4489

ISSN: 2274-2042

Publisher

Société des Anglicistes de l'Enseignement Supérieur

Electronic reference

V Shri Vaishali and S. Rukmini, "Hashtags in Linguistic Anthropology: A COVID-19 Case Study", *Angles* [Online], 12 | 2021, Online since 15 December 2021, connection on 22 December 2021. URL: <http://journals.openedition.org/angles/4489> ; DOI: <https://doi.org/10.4000/angles.4489>

This text was automatically generated on 22 December 2021.

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Hashtags in Linguistic Anthropology: A COVID-19 Case Study

V Shri Vaishali and S. Rukmini

1. Introduction

- 1 The COVID-19 outbreak and the eventual lockdowns have brought about ever-increasing active social media lives. This can be due to the lack of physical communication and the internet being the only space for communication, information and entertainment. Ruzy Suliza Hazim (2020) has mentioned that “lockdown and self-isolation has led to many people feeling trapped without family and friends. Being cut off from human contact can be mentally draining.”(Tan 2020: 13). Digital adoption of everyday life is the coping mechanism that people have identified to avoid the feeling of being trapped. Anita Whiting and David Williams (2013) demonstrated the importance of users and gratification theory concerning social media, and they found ten uses and gratifications: social media interaction, information seeking, pastime, entertainment, relaxation, communicatory utility, convenience utility, expression of opinion, information sharing, and surveillance or knowledge about others. The above ten uses or gratifications play an essential role in coping with COVID-19 lockdowns across borders. From being one of the sources of such gratifications, the Internet in COVID-19 days has become the primary source for the above uses. With the complete dependency on the internet, social media, and digital gadgets for communication, an overwhelmingly pandemic-related content is delivered across social media. So are the hashtagged responses to the pandemic in social media.
- 2 Hashtags are usually a word or phrase preceded by the symbol ‘#’ used in social media and digital platforms to find the content under a particular topic. Consequently, hashtags organize the content for the users’ needs and help them get every possible content regarding a particular theme or topic in social media.

- 3 Interestingly, the hashtags' organization and categorization roles help create a community of content and services for communicative functions. The recently famous #blackandwhitechallenge on Instagram is an instance of such communication and community-building functions of hashtags. Michelle Zappavigna (2015) has found that hashtags enact three communicative functions: marking experiential topics, enacting interpersonal relationships, and organizing text. Eventually, the hashtags evolved from being merely used for purposes like business marketing, categorizing and painting a theme on content to become an expression by itself. Hashtags as an expressing device help its users identify the tags as letters of various emotional mind spaces. The user's choice of using hashtags in places like WhatsApp stories where hashtags cannot be tapped to see the other relevant stories is evidence of the identification of hashtags as an emotional expression.
- 4 This widespread use of hashtags has escalated during the pandemic. As a result, hashtags provided an exciting outlook for academics in understanding the pandemic from the perspective of the humanities and social sciences. The common hashtags used in Facebook and other social platforms, the content style in social media and trending phrases and words related to the pandemic have been recorded, archived and analysed in-depth (Zyot & Gazo 2021; Nikjoo et al. 2020; Cahapay 2020). Al Azzawi et al. (2021) have studied how people 'speak corona' using hashtags in social media. The presence of bots and other related conspiracies and misinformation using hashtags during COVID-19 has also been studied in detail by numerous researchers (Hussain 2020; Shanthakumar et al., 2020; Chen 2020). While multitudinous research inspects the pandemic life recorded in social media from numerous perspectives, the position of hashtags in understanding people's linguistic behaviour during the pandemic is still underexplored. The anthropological significance of the recent episode of COVID-19 is unquestionable. The present research attempts to study the linguistic patterns of hashtags from an anthropological perspective to understand people's mind space in social media during the pandemic.

2. Hashtags in Linguistic Anthropology

- 5 Linguistic anthropology is the study of human behaviour and culture from a linguistic point of view. Duranti (1997) suggests that linguistic anthropology approaches language through anthropological concerns. Further, he also clarifies the various anthropological concerns linguistics can attend to: "the transmission and reproduction of culture, the relationship between cultural systems and different forms of social organisation, and the role of the material conditions of existence in a people's understanding of the world." (Duranti 1997: 4) The primary objectives in linguistic anthropological research revolve around the supposition that human language is a thinking faculty and, therefore, affects their actions/behaviour. The agency of language with an effect on human behaviour influences human habits, behaviour and culture. Therefore, it largely relies on extensive data of what human beings speak and write to study culture and behaviour (Duranti 1997). Such extensive characteristic of data to study the linguistic behaviour of people concerning an event is innately available in hashtags. Apart from the ability of hashtags in providing extensive data, the role of hashtags in social media is naturally relevant to the scope of linguistic anthropological studies.

- 6 Further, hashtags carry emotive functions and perform as an expressing device. Saif M. Mohamed and Svetlana Kiritchenko (2015) have explored the word-emotion associations through hashtags and found that they can improve emotional classification accuracy in a different domain. Consisting of only a few words, the lexical structure of hashtags is unambiguous and straightforward. Various studies, including Giannoulakis & Tsapatsoulis (2016), suggest that hashtags help accurately describe the intention of an image which can be inferred through image annotation processes like crowdsourcing.
- 7 The multidimensional features of hashtags hold the potentiality to participate as a reliable source scientifically and academically. Studies investigating the functions of hashtags find it helping in ideological construction, emotional connection and community building (La Rocca 2020; Colleoni 2013; Papacharissi 2015). Such functions of hashtags can further provide a linguistic window for anthropological studies, making hashtags perform as a reliable source for linguistic anthropology. Duranti (2003) has classified the evolution of linguistic anthropology into three paradigms. The first paradigm of linguistic anthropology is formalistic, focusing on the grammatical description, linguistic typology and classifications, where it shifts in the second paradigm to focus more on anthropology. The third paradigm is more anthropologically-oriented and brings up linguistic anthropological themes such as: investigations of personal and social identities, shared ideologies, construction of narrative interactions among individuals. Hashtags fall under the three themes above as they build social identity and a community of shared ideologies by creating narrative interactions among individuals.

3. Collection of COVID-related Hashtags

- 8 As set down by Hymes (1964: xxiii), the scope of linguistic anthropology can “include problems that fall outside the active concern of linguistics, and always it uniquely includes the problem of integration with the rest of anthropology.” Duranti (1997: 4) has established that linguistic anthropology “does not mean that its research questions must always be shaped by the other subfields in anthropology.” Therefore, the present study aims to study the potentiality and usability of hashtags in answering the anthropological questions related to COVID by studying the role of pandemic-related terms used in the hashtags, segmenting the hashtags lexically, studying the meaning and role of each word used in hashtags, and studying the socially and anthropologically concerned COVID-related neologisms found in hashtags.
- 9 Identifying the hashtags that are directly associated with the lifestyle of people during COVID-19 is a challenge. The virus has definitely brought unpredictable changes to our lives and also to the vocabulary that describes our lifestyles. The usage of words like quarantine, lockdown, pandemic have become more frequent in our daily lives along with corona and COVID after the outbreak (Katella 2020). Apart from them, the usage of phrases: *oldnormal* and *newnormal* to define the lifestyle pre- and post-COVID have become popular too. Several studies started to use the phrase ‘new normal’ for studying COVID and the lifestyle changes (Corpuz 2021; Cobianchi 2020; Xiao 2021). So, we decided to identify COVID-related hashtags using the presence of these seven words that were acknowledged to have been used in the context of pandemic in social media: *Newnormal*, *Oldnormal*, *Corona*, *Quarantine*, *Lockdown*, *Pandemic*. Also, the study labels

these words as *basetags*, by which we mean the formation of hashtags using these words as a prefix.

- 10 We chose Instagram for our research as the medium to study the usage of COVID-related hashtags and its linguistic anthropological concerns. 87 hashtags were selected across the primary tags: #newnormal, #oldnormal, #covid, #corona, #quarantine, #lockdown, and #pandemic. The hashtags across these primary tags were chosen based on their popularity (which is determined by the number of its occurrences) and the significance of the *stemtags*. The following are the hashtags chosen based on the data provided by Instagram in July 2021. The column with the number of occurrences notes its occurrences up until July 2021. A single post may include several occurrences of these hashtags. The number of occurrences of the hashtags here directly denote the popularity of hashtags and may not be directly proportional to the number of posts in Instagram. The chosen hashtags were collected based only on the selected primary tags and their popularity. The research does not attempt to bifurcate the hashtags spatially or temporally, a task rendered impossible by the data source. Therefore, the analysis of the listed hashtags focuses on the general impact of COVID-19 in social media through hashtags and its linguistic anthropological implications through Instagram.

Table 1: Chosen hashtags under the base tag #newnormal

Hashtag	Number of Occurrences
#newnormal	5.4M
#newnormal2020	367k
#newnormallife	98k
#newnormalwedding	125k

Table 2: Chosen hashtags under the basetag #oldnormal

Hashtag	Number of Occurrences
#oldnormal	5000+
#oldnormaldays	500+
#oldnormalschool	>100
#oldnormalvsnewnormal	>100

Table 3: Chosen hashtags under the basetag #quarantine

Hashtags	Number of Occurrences	Hashtags	Number of Occurrences
#quarantine	30.3 M	#quarantinefood	312k

#quarantinelife	12.7 M	#quarantineartclub	304k
#quarantineandchill	3M	#quarantinekitchen	224k
#quarantinecooking	800k	#quarantinestories	182k
#quarantinebirthday	653k	#quarantinechallenge	139k
#quarantineart	629k	#quarantinefitness	127k
#quarantinedays	546k	#quarantinecuisine	105k
#quarantinememes	544k	#quarantinemeals	94.1k
#quarantineworkout	451k	#quarantineparty	83.9k
#quarantinediaries	340k	#quarantinemoves	63.3k
#quarantinebaking	338k	#quarantinegames	59k
#quarantinemood	317k	#quarantineradio	57.5k

Table 4: Chosen hashtags under the basetag #lockdown

Hashtags	Number of Occurrences	Hashtags	Number of Occurrences
#lockdown	20.3M	#lockdownactivities	112k
#lockdown2020	4.7M	#lockdownchallenge	108k
#lockdownlife	2.2 M	#lockdowndays	107k
#lockdowndiaries	406k	#lockdownfitness	82.9k
#lockdownart	305k	#lockdownrecipes	77.1k
#lockdownmemes	259k	#lockdownsessions	63.6k
#lockdowncooking	238k	#lockdownextended	61.4k
#lockdownwedding	196k	#lockdowngardening	41.1k
#lockdownbaking	160k	#lockdownhouseparty	40.8k
#lockdownworkout	130k	#lockdownextension	36.5k
#lockdownfood	126k	#lockdownmeals	35k
#lockdownfun	123k	#lockdownagain	20.8k
#lockdownphotography	120k		

Table 5: Chosen hashtags under the basetag #covid

Hashtags	Number of Occurrences	Hashtags	Number of Occurrences
#covid19	43.2M	#covidkindness	229k
#covid	19.3M	#covidcooking	201k
#covidwedding	477k	#covid19news	108k
#covidlife	324k	#covidiot	80.3k
#covidart	321k	#covidphotodiaries	70.5k
#covidmemes	299k	#covidclassics	20.5k

Table 6: Chosen hashtags under the basetag #pandemic

Hashtags	Number of Occurrences	Hashtags	Number of Occurrences
#pandemic	4.8 M	#pandemicwedding	53.7k
#pandemic2020	674k	#pandemicbirthday	45k
#pandemiclife	531k	#pandemicbaking	24.4k
#pandemicart	114k	#pandemiccooking	22.1k
#pandemiccorona	60.3k	#pandemicoflove	1000+
#pandemicparenting	56k		

Table 7: Chosen hashtags under the basetag #corona

Hashtags	Number of Occurrences	Hashtags	Number of Occurrences
#coronavirus	35.8 M	#coronavirusememes	529k
#corona	30.1 M	#coronawarriors	208k
#coronamemes	2.3 M	#coronavirusart	46.5k
#coronatime	1.4 M		

- 11 Further, to approach the COVID-related hashtags from an anthropological linguistic perspective, the study takes five of the ten variables that Herring (2007) suggested as the social facets of language on the internet. Herring (2007) suggested ten social facet variables: participation structure, participation characteristics, purpose, activities,

topic, tone, norms of the organisation, norms of social appropriateness, norms of language, and code. The study designates five of the above facets:

- The purpose: to validate the significance of the words used in hashtags concerning the pandemic situations.
 - The tone is the “manner or spirit of the conversation.” Here, the study takes this variable to understand the nature of the neologisms and the emotive functions of the hashtags.
 - Norms of the organisation: to categorise the hashtags based on their lexical features and the context.
 - Participation characteristics: to discuss the sociolinguistic aspects. With a human as the participant, participation characteristics usually involves age, gender, cultural background, etc. Here, as the study uses hashtags as the participants, it studies the word order, genre and activities as the participation characteristics.
 - Participation structure: the number of participants in an interaction. Our study employs this facet to evaluate the number of each hashtag on Instagram.
- 12 Duranti (1997) confirms that the role of linguistic anthropologists is scattered across the spaces of everyday encounters, language socialisation, ritual and political events, scientific discourse, verbal art, language contact, language shift, literacy events, and media. By applying Herring’s facets to hashtags, the study verifies the scope of hashtags in the above mentioned areas of linguistic anthropology.

4. Segmentation and Organization of Hashtags

- 13 The lexical segmentation of hashtags aids in studying their linguistic and emotional characteristics. Different studies already suggest the methodology and framework for segmenting the hashtags for sociolinguistic (Qadir & Elloff 2014) and computational reasons (Reuter et al. 2016; Berardi 2011). Qadir and Elloff (2014) have proposed a tree diagram method to break down the hashtags into individual lexical units for disambiguating and analysing the hashtags’ emotional characteristics. Our current study segments the hashtags into stemtags and basetags through a similar tree diagram structure.
- 14 The study uses the term basetag to denote the pandemic-related terms found in hashtags and collects the hashtags associated with the basetag. The chosen basetags are #newnormal, #oldnormal, #quarantine, #lockdown, #covid, #pandemic, #corona. Stemtags are the other significant words used in the hashtag, along with the basetag. Hence the hashtags are segmented into basetags and stemtags with a tree diagram structure, as shown in Fig. 1. The construction of the tree diagram is to help in categorising the stemtags into different genres and contexts. Also, it extends its role in understanding the relationship between the basetag and the stemtag.

Figure 1. Segmentation of Simple Hashtags

Source: The diagram was made by the authors to illustrate the segmentation for methodological purposes.

- 15 While most of the hashtags can be classified into simple basetags and stemtags, a few hashtags are complex as they carry conjunction in them, as shown in Fig 2.

Figure 2. Segmentation of Complex Hashtags

Source: The diagram was created by the authors to illustrate the segmentation for methodological purposes.

- 16 The above example does not take the conjunction as a part of stemtag as we consider stemtag an exclusive content word intended to add a new aspect to the chosen basetags. In hashtags like #coronavirus and #pandemicorona, the basetag and stemtag are contextually synonymous. Therefore, they are treated as a single unit of a hashtag, excluded from being segmented into base and stem. The other hashtags are segmented into basetag and stemtag, and the stemtag of each hashtag is collected for further analysis, as shown in Image 1.

Image 1: Word cloud of the chosen Stemtags

The wordcloud created post-segmentation by collecting all the stemtags related to different basetags.
Source: The wordcloud was created after the segmentation of all hashtags with wordart.com

- 17 The stemtags are further categorized into distinctive stemtags and common stemtags. The specific stemtags under the distinctive category is exclusive and more accurate to the content. The distinctive stemtags are specific and unidimensional. These tags are directly associated with the content, while the common stemtags carry words that act as an umbrella term for a multitude of content. The distinctive stem tags include #cuisine, #fitness, #gardening, whereas the common stemtags contain words like #life, #days and #time that do not accurately describe the content of the post but are still relevant, as shown in images 2 and 3.

Image 2: Wordcloud of Common Stemtags

The wordcloud shows the further classification of stemtags called 'common stemtags' identified to represent generic content.

Source: The wordcloud was created after the segmentation and categorization with wordart.com

Image 3: Wordcloud of Distinctive Stemtags

The wordcloud shows the further classification of stemtags called 'distinctive stemtags' identified to represent unidimensional or genre-specific content.

Source: The wordcloud was created through segmentation and categorization with wordart.com

5. The COVID Lexicon

- 18 From an anthropological perspective, the vocabulary of people reflects the lifestyle they have. J. K. Chambers argues that

People adjust their vocabulary, sounds, and syntax depending upon whom they are speaking to and the circumstances of the conversation. Such adjustments are often linguistically subtle and socially meticulous, and largely subconscious. They are not taught or consciously learned, but are part of the innate linguistic competence of all normal people. (Chambers 2007: 4601)
- 19 Chambers' argument in the sociolinguistic context is valid from an anthropological perspective too. The changes in people's vocabulary due to the circumstances is crucial for an anthropological understanding of the circumstances. This paper identifies the basetags as a representation of people's COVID lexicon. The study analyses the number of occurrences of basetag to identify the preferred quarantine-related word for hashtags in Instagram.

Chart 1: Distribution of basetags among the collected hashtags based on its occurrences

The pie chart depicts the distribution of occurrences of each basetag in the collected hashtags. The number of occurrences of each basetag from the collected data is calculated to study the most popular basetag during the pandemic. In the identified basetags, #COVID was used in 34% the Instagram hashtags and occurred a total of 83.8M times, #corona was used in 28% of the hashtags and occurred 69.9M times, #quarantine was in 21% of the collected hashtags with 52.8M total occurrences, #lockdown was in 12% with a total of 30M occurrences, #pandemic in 3% of the hashtags and occurred 6.38M times, #newnormal in 2% of the hashtags and occurred 5.9M times, and #oldnormal in less than 1% of the hashtags and occurred only 5.7k times.

Source: The chart was created by the authors to show the distribution of the chosen basetags.

- 20 The two basetags #newnormal and #oldnormal may not be considered as words which can be directly related to the pandemic. But these basetags stand as a testimony to how the pandemic affected and re-defined normalcy. The adjective new in #newnormal defines the sudden change in the way of living while the 'normal' in #newnormal emphasizes why this sudden change in lifestyle has to be normalized due to circumstances. While #newnormal represents the life during the pandemic, #oldnormal is a reminder of the life that was once lived before the COVID-19 pandemic. On comparing the counts between #newnormal (5.9M) and #oldnormal (5.7k), we can find that Instagram recorded the life during the pandemic more frequently than throwing back to the nostalgic content of #oldnormal living in the context of the pandemic.

6. Hashtags and COVID-Lifestyle

- 21 The unidimensional, distinctive stemtags are specific and directly associated with the content. The distinctive stemtags and associated hashtags are further analysed to verify the potentiality of hashtags through the collected sample in answering the COVID-related socio-anthropological questions such as:
1. How did the pandemic affect social events and gatherings?
 2. What were the activities people were involved during the lockdown days?
 3. Did people build a virtual community during the socially-distant lockdown days?

6.1. Hashtags related to Social Events

- 22 In the collected hashtags, a few carry the #newnormal definition of events that the pandemic has brought. The sudden change of existing ideas and norms of events due to the pandemic can be studied through this set of hashtags. Significantly, social events like weddings or parties have donned a new-normal definition due to the social distancing norms as weddings were restricted to 50 people or when New York Governor Andrew Cuomo made it legal to conduct internet weddings. The stemtags associated with social events like #wedding, #party, #houseparty, and #birthday carry a new normal definition with the presence of the COVID-related basetags.

Figure 3. Hashtags and social events

Source: The diagram was created by the researcher for segmentation purposes.

- 23 The segmentation conveys that hashtags like #wedding, used for archiving or journaling a popular social event like a wedding, don a #newnormal definition through the presence of the basetag. The use of the basetag #lockdown before the stemtag #wedding emphasizes the deviation of old norms in such social events and builds a new genre for the event #wedding called a #pandemicwedding, #lockdownwedding, etc. The #newnormal way of conducting social events is echoed in a few collected hashtags listed in Table 9.

Table 8: Examples of hashtags that carry a new pandemic-related identity to the existing events

#lockdownwedding	#lockdownhouseparty
#pandemicwedding	#quarantinebirthday
#pandemicbirthday	#quarantineparty
#covidwedding	#newnormalwedding

6.2. Hashtags in Everyday Activities

- 24 Other distinctive stemtags found mostly represent activities that can be directly associated with people's everyday lives. These set of hashtags can help understand the set of activities done by people as recorded in social media during COVID as shown in Table 10.

Table 9: Examples of hashtags that journals life during COVID

#pandemicart	#pandemicbaking
#lockdownworkout	#lockdowngardening
#lockdownmeals	#covidphotodiaries
#lockdownrecipes	#covidart
#pandemiccooking	#pandemicparenting
#quarantinemeals	#lockdownchallenge
#quarantineworkouts	#lockdownactivities
#quarantinecooking	#quarantinestories
#quarantinefood	#quarantinegames
#quarantinebaking	#quarantineradio
#quarantinekitchen	#quarantineartclub
#quarantinecuisine	#quarantinefitness

- 25 Further, the stemtags are categorized based on the activity they represent to find the most recorded activity by people on social media during COVID (Chart 2).

Chart 2: Predominant activities recorded in social media based on the number of occurrences of the associated hashtags

The chart explains that the majority of the activities-associated stemtags discuss cooking and food. 33% of the occurrences belong to art and photography related activities, and 16% fitness and workout. Stemtags related to gardening and games have contributed 1% each in the occurrences of the collected activity-related stemtags.

Source: The chart was created by the authors to show the distribution of the stemtags related to daily activities recorded using hashtags in Instagram during COVID-19.

6.2.1 Cooking and Food

- 26 The posts on cooking and food on Instagram or any other social media has been popular even before the COVID period. The addition of the base tags help us identify the content in COVID times. The study focuses on food-related content during COVID by identifying the cooking and food-related stem tags. There is a multitude of stemtags related to cooking and food in the collected hashtags. They include #cooking, #recipes, #meals, #baking, #kitchen, and #food. From the collected data, the hashtags related to cooking and food has recorded over 2M occurrences, representing 48% of the total of hashtags referring to everyday activities.
- 27 Studying the hashtags related to everyday activities during COVID life with respect to their number of occurrences is a window to know the booming interests of people during lockdown. The analysis has provided us a clear picture about how food and art were prioritized during lockdown — work from home culture.

6.2.2 Fitness and Workout

- 28 The stemtags related to fitness and workout are #workout and #workouts. The hashtags related to fitness include #lockdownworkout and #quarantineworkouts. From the collected data, the hashtags related to fitness and workout has occurred over 899k times or 16% of the total.

6.2.3 Boardgames

- 29 The stemtags like #games or #boardgames are used for recording games played during the COVID period. From the collected data, the hashtags related to games have been found to occur over 59k times on Instagram, representing only 1% of the total.

6.2.4 Gardening

- 30 Instagram archives the COVID time gardening using the stemtag #gardening, which has occurred over 41.1k times in the collected data, or 1% of everyday activities.

6.2.5 Art and Photography

- 31 The stemtags related to art and photography include #art, #artclub, #photodiaries, #photography. #covidclassics was found popular for recreating classic stories during COVID. The art and photography related hashtags from the collected data occurred over 1.9M times on Instagram (a visual-rich social media platform), or 33% of the total.

6.2.6 Parenting

- 32 The stemtag #parenting was used for recording the parenting experiences in the lockdown period. The hashtag #pandemicparenting occurred over 56k times on Instagram, or 1% of the total.

6.3. Hashtags in Community Building

- 33 Through using similar hashtags for a cause, hashtags indirectly create a community of social media users. It helps create affective publics, which is a term defined by Papacharissi (2015: 5) as “networked publics that are mobilized and connected, identified, and potentially disconnected through expressions of sentiment.” Sometimes, hashtags build an idea of community by involving people to participate with a specified purpose through these hashtags actively. The stemtags #artclub and #challenges have been identified to perform the community-building function in the collected distinctive stemtags. These stemtags have collectively occurred over 551k times in the collected set of distinctive hashtags.

7. Identified Functions of the Common Stemtags

- 34 The study identifies common stemtags (see Image 3, above) that are generic and multidimensional. These are words that cannot be associated with a single activity or a specific content. Although the stemtags seem to be generic, further lexical analysis of the stemtags shows that they perform one of the three identified functions: archival, emotive and reactive (see Chart 3, below).
- 35 Further, the number of occurrences of each stemtag is compared and analysed under the hypothesis that the number of occurrences can help understand the most preferred performative hashtags’ function during COVID.

Chart 3: Functions of the Common Stemtags

The analysis displays that 75% of common stemtags are used for archival or journaling functions, while 12% are intended to perform emotive functions and 13% for reactive functions. Also, this analysis acts as evidence of people's preference for using hashtags to 'record' their daily lives during COVID, which can be used as a source for anthropological studies.

Source: The chart was created by the authors to show the identified functions of stemtags and its distribution.

7.1. Stemtags that perform archiving functions

- 36 Stemtags like #diaries, #life, #time carry a chronicling aspect to the quarantine-related hashtags. Through word choices like #diaries or #days, social media have consciously or unconsciously journaled life during COVID. The hashtags associated with such stemtags are called archival hashtags. Seven stemtags were identified to perform this function: #2020, #life, #days, #diaries, #stories, #sessions, and #time.

7.2 Stemtags that perform emotive functions

- 37 Stemtags like #fun, #chill, #kindness, #love and #mood can be associated with the emotive aspect of the content. Such stemtags act as a window to understanding the lockdown-mind space of people and bring affective/emotive characteristics to the hashtags.

7.3 Stemtags that perform responsive functions

- 38 Stemtags like #extended, #extension, #again, and #memes carry people's reaction to COVID-related lockdowns. Therefore, we identify them performing the reactive or responsive function as a hashtag to COVID and lockdown.

8. Neologisms in COVID

- 39 COVID-19 has brought numerous new words to the dictionary, from words like Covidiot and Coronapocalypse that discuss COVID-related living, the #newnormal has also brought strange neologisms including maskne, which is acne developed by the regular wearing of masks, and quaratini, which is a cocktail had in quarantine. Al-Azzawi & Haleem (2021) have listed neologisms related to the COVID-19 pandemic used in hashtags. Our study focuses on the number of occurrences of these neologisms in Instagram hashtags and further, study their popularity and functions. By number of occurrences, we mean the times of recurrences of the hashtags in Instagram and it may not be an equivalent to the number of posts. The following records a selection of new phrases and words formed during the pandemic.

Table 10: Examples of COVID-related neologisms in Instagram hashtags

S. No.	Neologisms in Hashtags	Meaning	Number of Occurrences
1.	#coronacation	The break from regular #oldnormal school and workstyle that is treated as a vacation from regular lifestyle.	198k
2.	#Maskne	Acne developed by wearing masks	178 k
3.	#Quarantini	Any kind of a cocktail drunk in quarantine	109k
4.	#Coronapocalypse	A word used to described the extreme social, economic and political reactions to the pandemic.	109k
5.	#covidient	Used for describing a person who follows the public health guidelines to save themselves from covid.	100k
6.	#Pandemicbaby	A baby that was born during the pandemic	97.1k
7.	#Covidiot	COVID+Idiot, used for describing people that do not understand the seriousness of the pandemic or do not follow the public health guidelines.	53.9k
8.	#quaranteen	For recording the lifestyle of teen agers during the quarantine.	32.9k
9.	#coronacoaster	Describing the ups and downs of pandemic.	12.2k
10.	#Infodemic	Manipulation of information and inauthenticity during the pandemic.	1000+

11.	#pandumbic	For describing someone who is ignorant of the public health guidelines or lacks knowledge about the pandemic.	500+
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The study classifies these neologisms into contexts as describing the pandemic behaviour of people, describing lifestyle during the pandemic, describing the socio-political effects of the pandemic, and describing the pandemic in general. The hashtagged neologisms identified to describe people during the pandemic were #pandumbic, #covidient, #quaranteen, #pandemicbaby and #covidiot. Neologisms related to the socio-political effects of the pandemic were #infodemic and #coronapocalypse. Neologisms discussing the lifestyle of people during the pandemic were #quarantini, #maskne, #coronacation and #coronacoaster.

- 40 The role of neologisms in hashtags can be further analyzed in two ways: 1. Based on the number of neologisms that occurred under each category. 2. Based on the frequency of occurrences of the neologisms under each category.

Chart 4: Occurrences of Neologisms in hashtags based on their Categories

Based on the total number of occurrences, the lifestyle-related neologisms occupy 56% of the total occurrences, neologisms for describing people in the pandemic, 32%, and neologisms related to socio-political effects, 12%.

Source: The chart was created by the authors to show the distribution of functions of COVID-related neologisms.

9. Conclusion

- 41 Solving any anthropological conundrum accounts for its direct engagement with human behaviour and lifestyle. The validity of anthropological findings and speculations rely on the anthropologist's sources and primarily on the extension of first-hand anthropocentric information the anthropologist can collect. Therefore, it is significant for anthropological data to be vivid, immediate, and empirical to perform as a reliable research source.
- 42 By studying pandemic-related hashtags, we found that hashtags could record and describe people's lifestyles and social reactions vividly. This quality of hashtags make

them an essential tool for digital anthropological studies. COVID-related hashtags brought a specific hashtag genre to the social media database, reflecting people's mind space during COVID. Other than just performing as an expressing device, hashtags can act as a digital repository for the times.

43 The linguistic analysis of the chosen COVID-related hashtags has provided a glimpse to the lifestyle of people during this period of crisis. The results show us that social media is frequently used during the pandemic for a multitude of purposes. The lexical combinations of the hashtags and their number of occurrences have allowed us to list the following findings with respect to the COVID lifestyle:

- The presence of the identified basetags as a prefix to several common and distinctive stemtags showed us the people's approach to the pandemic lifestyle as a specific genre.
- On comparing the counts between #newnormal (5.9M) and #oldnormal (5.7k), we found that Instagram recorded the life *during* the pandemic more frequently than throwing users *back* to nostalgic content of #oldnormal living in the pandemic context.
- The study of the distribution of everyday activities in the hashtags showed that cooking and food had taken a predominant space during life in lockdown.
- The stemtags like #challenges and #club proved people's initiatives to digitally build communities in a phase in which social distancing became the norm.

44 Duranti affirms that

linguistic anthropologists start from the assumption that there are dimensions of speaking that can only be captured by studying what people actually do with language, by matching words, silences, and gestures with the context in which those signs are produced. (Duranti 1997: 9)

45 The current study focused on how people treated hashtags and their purpose. Through a linguistic analysis, we could find the following psycho-social dimensions of hashtags during the pandemic. The segmentation and the comparison of the total range of hashtags under each keyword helped us study people's lifestyle choices and preferences during COVID. Further, the frequency of the usage of pandemic-related words in hashtags helped us determine that these words have become more common in people's everyday vocabulary. Also, through the performative functions of stemtags, we found hashtags being preferred for people to journal or archive their own lives, which can make the study of hashtags provide first-person information in anthropological enquiries.

46 Segmenting hashtags and lexically analysing them provide significant help in visualising vivid imagery related to the situation. Also, the unambiguity and clarity in the hashtags make them a better repository of anthropological information, providing a psycho-social and anthropological perspective to people's lifestyles. Therefore, hashtags can be treated as a potential data source to study the anthropological aspects of a phenomenon.

47 Apart from a qualitative study of the hashtags through linguistic choices, the available quantitative details, based on the number of occurrences of a particular hashtag, can help understand lifestyle choices and other anthropological related information. For instance, studying the count of different hashtags that convey probably opposite meanings can help understand the stand of the majority in social media on a particular cause or event. The potentiality of hashtags in many linguistic pieces of research also extends their significance in studies across the arena of digital humanities.

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ABSTRACTS

Hashtags in social media reflect the Coronavirus pandemic outbreak and the consequential shifts and swifts in people's lifestyles. Several studies related to the pandemic have used hashtags from linguistic, economic, and sociological perspectives. However, the potentiality of hashtags in addressing the pandemic-related anthropological questions is still underexplored. This study verifies how hashtags are primarily anthropocentric and can act as a source for anthropological

studies. We have collected COVID-related hashtags in Instagram under five different pandemic-related words like #newnormal, #oldnormal, #quarantine, #lockdown, #pandemic, #corona. Eighty-eight hashtags under the mentioned pandemic-related keywords and 11 neologisms are collected to analyse their linguistic patterns and anthropological implications. The hashtags are segmented into basetags and stemtags to find the lexical significance of individual word units in the pandemic lifestyle. The segmentation helped analyse the range of vocabulary in hashtags used to describe people's lifestyles during the pandemic. Hashtags are user-friendly and are primarily used as an expressing and recording device. The archival and emotive quality added to hashtags' searchability and accessibility make them a potential linguistic anthropological research source for the 'COVID-19 pandemic.

Les *hashtags* dans les médias sociaux reflètent l'épidémie de pandémie de coronavirus et les changements qui en découlent dans le mode de vie de la population. Plusieurs études liées à la pandémie ont utilisé les *hashtags* dans une perspective linguistique, économique et sociologique. Cependant, le potentiel des *hashtags* pour aborder les questions anthropologiques liées à la pandémie est encore peu exploré. Cette étude démontre que les *hashtags* sont avant tout anthropocentriques et peuvent servir de source pour les études anthropologiques. Nous avons collecté les *hashtags* liés au COVID sur Instagram sous cinq mots différents liés à la pandémie comme #newnormal, #oldnormal, #quarantine, #lockdown, #pandemic, #corona. Quarante-huit *hashtags* liés aux mots-clés associés à la pandémie sus-mentionnés et 11 néologismes ont été collectés pour analyser leurs modèles linguistiques et leurs implications anthropologiques. Les *hashtags* sont segmentés en *basetags* et *stemtags* afin de trouver la signification lexicale des unités de mots individuels dans le mode de vie en période de pandémie. La segmentation a permis d'analyser l'étendue du vocabulaire des *hashtags* utilisés pour décrire le mode de vie des gens pendant la pandémie. Les *hashtags* sont conviviaux et sont principalement utilisés comme moyen d'expression et comme dispositif de consignation ou d'archivage. La qualité archivistique et émotive, ajoutée à la facilité de recherche et à l'accessibilité des *hashtags*, en font une source potentielle de recherche anthropologique linguistique pour analyser la pandémie de COVID-19.

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Mots-clés: hashtag, Instagram, COVID-19, linguistique anthropologique, Internet

Keywords: hashtag, Instagram, COVID-19, linguistic anthropology, Internet

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