

Linguistic Analysis of the Discourse, Structure, and Social Impact of the Hashtag #ClimateMarchPK in Digital Activism

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ABSTRACT

Social media has completely altered the way we (the younger generation) enter the social and political spheres and provides us with a platform where we can yell, assemble, and connect. The Climate March has emerged to be a giant in Pakistan, where youths and students stand up to address climate change and the disintegration of our earth. This paper plunges into this language of tweets with the hashtag of the climate march PK, analysing the words and phrases and emotion Pakistani young people invest their posts with. The study combines quantitative and qualitative methods, as it first counts and frequencies keywords, but delves into the sentiment and themes. We obtained data in Twitter/X directly by scraping as well as through manual review of posts on the event dates. The analysis demonstrates similar linguistic patterns, the central emotions and theme trends which reflect the participating students' interaction, their awareness of the environment and group pressures. The results indicate that the discussion about the #ClimateMarchPK is dotted with such words as climate, action, future, youth, and Pakistan, whereas the most widespread feelings are hope, frustration, and urgency. In addition, hype tools such as hashtags and emojis are used, which unite people and enhance online presence. The given work allows us to comprehend the functioning of student-driven climate activism in Pakistan and emphasise the importance of social media as an arena of activism and emotional release.

Introduction

The issue of climate change has in the recent past become one of the largest roadblocks of the globe, and it has to feature urgent vibrations on the government, NGOs and ordinary people like us. As a nation that has been continually experiencing floods, heat waves, and droughts, Pakistan has witnessed its citizens growing more concerned about ensuring that the planet stays sane. Of all the methods of

involvement, social media activism has emerged as one of the most effective means of generating awareness and initiating gigantic collaboration with students being the key proximate target audience. Twitter/X allows us to experience life, thoughts, and a leap of action immediately. Digital tags like hashtags connect people and allow activists to view popular conversational words, understand the trends, and create online communities around a cause. One of such tags was called #ClimateMarchPK, and it went viral during the national climate marches, which demonstrates that the kids are shaking up climate activism.

Rationale of the Study

Knowing how the post words in posts utilising the hashtag ClimateMarchPK can provide us with a preview of what young Pakistanis think about climate change, how they speak, and how they organise online groups. The role of social media in climate-related activism has been learned by the world as a whole, but few studies have specifically been conducted on the situation in Pakistan. The work wishes to fill that gap, taking a look at the linguistic dimension, emotions, and tendencies of youth-dominated climate conversation. The examination of the language use is much more than it reveals how much people understand of the environment, but also lays emphasis on the advocacy strategies of persuasion. As an example, the visualisation of appearing keywords, top-ranking emotions on the Internet, and hashtags and emojis utilisation can disclose how online activism can enhance communication and disseminate environmental messages.

Research Objectives

This is a project concerning the following objectives:

To identify the keywords, hashtags, and emojis that appear the most frequently in postings of the hashtag #ClimateMarchPK.

To dissect the sentimentality of the youth mob, classifying it under such categories as hope, fear, anger, or drive.

To keep track of common themes of the discussion, e.g., environmental concerns, youth activism, and criticisms of the powers that be.

To determine how social media is a catalyst for student activism and the co-creation of a common identity in Pakistan.

Significance of the Study

The study is relevant in several ways:

Academic Impact: It contributes to the limited studies on social media activism in Pakistan, particularly regarding the involvement of students in climate change talks.

Practical Implications: The implications can be used by environmental NGOs, policymakers, and teachers to create superior awareness campaigns and effective strategies that can appeal to the communication patterns of students.

Social Relevance: Eating into the words and the emotions of the youth, this research paper brings some insight into what motivates, worries, and binds the upcoming generation of climate leaders in Pakistan together.

Delimitation and Limitations

The paper narrows down on Twitter/X posts containing the hashtag ClimateMarchPK within the designated event period. Although that provides a juicy perspective on youth talk, it leaves out the content of other applications on Instagram or TikTok. In addition, publicly available tweets are analysed, and this may not capture private conversations and low-visibility posts. Despite these restrictions, the dataset is a good source of understanding the way Pakistani youth discuss climate online, as it shows the trends in language, emotional involvement and activist discourse.

Literature Review

In attempts to obtain some understanding of the functioning of language and communication within social movements on social media, the researcher painstakingly browsed a variety of recent research in areas of climate activism, digital communication, and hashtag analysis. This literature review combines theoretical and empirical in 2024 to 2025 that has addressed climate talk, how the young folks are engaged, and the techniques applied in social networks, putting my own project in the context of a bigger scholarly discussion. Mounting reports are proving social media not to be some source of memes, but the central platform where climatic information spreads out, consciousness increases, and youth activism receives a boost. Abubakar et al.(2025) examined the role of directed platforms in driving environmental advocacy and climate awareness, highlighting their seamless role in influencing young people's perceptions of climate concerns and action and pointing out fake information and ethical concerns about online campaigns.

The results provided by Khan & Ahmed (2024) revealed a significant correlation between social media consumption and climate-related beliefs among Pakistani university students, which allows assuming that Twitter/X and other social media platforms can have a tangible effect on the way intelligent college students perceive the environment. Combined, these writings indicate that social media are not only an instrument of message transmission, but also an arena of interaction, with word choice, framing, and interactive functionality all defining the climate conversation successively.

Digital Activism and Promising Youth.

In digital climate politics, it is examined how digital spaces amplify the ability of young people to organise, speak (and take action) in environmental politics:

The study of the role of hashtags and visual storytelling in young people through social media to form a sense of community and mobilise peers in sustainability movements was also broken down by Pandit et al. (2025) as the use of hashtags as a form of visibility that is easy to mobilise, particularly among the younger generation. Zulfikar Arahman et al. (2025) investigated communication strategies employed by young activists on social platforms, which included rhetoric, campaigning, framing and engagement strategies which created buzz and participation in environmental issues.

Such results resonate with the general literature that considers the youth as active speakers and storytellers and infuses climatetalk with both written text and paratext (hashtags, emojis, illustrations).

Climate discussion, linguistic and Hashtag analysis.

Hashtags can be researched as linguistic tools that can signify communal identity, enhance the clarity of a message, and help one to find topics more easily:

The notion of ambient affiliation by Michele Zappavigna (2011, 2012) introduced the concept of hashtags as linguistic markers that assist in the creation of communities and shared meaning on Twitter, a cornerstone theory of observation of any online hashtag talk. Cambridge Core hashtag sustainability (i.e. #WorldEnvironmentDay) hashtag search analysed content and sentiment analysis to identify common themes, including climate risks, pollution, and political accountability, as an example of using topic-level analysis to identify existing underlying public issues in environmental debate. Although the hashtags research is limited to Pakistan-specific, such broader language structures apply directly to examine the case of the digital phenomenon of the so-called #ClimateMarchPK as a collaborative construction.

Pakistani Research on Climate Communication.

Some of the recent books provide essential background regarding the way climate message, environmental discourse, and media trends influence the Pakistani society:

The review of the importance of social media in promoting climate awareness in Pakistan by Asfandiyar, Masood, and Khan (2025) points to the impact the online use of the internet platforms has on narratives, behaviour change, and perception, particularly among young people and university communities. In a Delphi-based study, Tahir and Zahid (2025) analysed the obstacles and factors behind using digital climatic activism in Pakistan, including structural issues (such as digital access and algorithmic bias) and cultural (that determine advocacy networks) ones. Alvi et al (2025) explored eco-linguistic practices with young people in Pakistan, comparing government and social media hashtags, and demonstrating how hashtags emerged as the negotiation space in the discourses on climate, symbolic and communicative value of tags. Baber et al. (2025) examined the impact of social media on the general public on climate change in Punjab and the importance of digital tools in framing the environment and persuading people to engage in it. These works provide an excellent example of a local research impetus that tends to treat digital communication as the major component of environmental talk, but most of them lack the in-depth linguistic analysis of the hashtags, which is what my research will take up.

Expanding Empirical and Methodological Horizons.

Besides country-specific work, more general studies offer appropriate empirical and methodological insights:

Scientific Reports (2025) reported that the patterns of misinformation related to climate and their engagement vary greatly between the platforms, in particular, during some global climate events, which once again supports the idea that digital discourse is formed not only by the flow of information but also by thematic peaks linked to events in the real world. Such studies of semantic analysis as Smolak et.al (2025) were based on computational linguistic models to map climate debate discourses, which can serve as a methodological reference concerning the application of quantitative text and sentiment analysis to Twitter data.

Research Gap

Climate communication and youth activism are actively performed on social media. Hashtags are used as linguistic creation signs which integrate discussion and community involvement. Youth engagement in Pakistan is also becoming a topic of growing research, yet little is known with respect to youth talking in the lingo of hashtag campaigns. As the research trends across the world provide excellent frameworks for sentiment, semantic and computational analysis, very few studies have utilised linguistic, sentiment and thematic analysis of Pakistani climate hashtags, particularly those events where youth were leading, e.g. the Climate March. This work fills that gap by analysing the phenomenon of the youth discourse on the issue of climate change through the lens of #ClimateMarchPK.

Methodology

Research Design

In this research project researcher dealing with a mixed-method design, which is a hybrid of a quantitative and qualitative analysis of linguistics. Researchers simply want to observe what Pakistani young people are discussing among themselves on Twitter about the climate march, so researchers would be searching keyword frequency and emojis used on one hand and on the other hand to explore sentiment, emotion and general themes that appear in the tweets. The mixed method is great, as the numbers alone are not enough. Word counts will provide you with a picture of what is being said, but you have to go deeper to find out how people construct climate activism, what emotional subtexts carry them, and how they use rhetorical gimmicks. The combination of the data ought to lead to a better understanding of the way in which climate activism online is being linguistically modelled by Pakistani youth.

Data Source

The Researchers selected Twitter (or X, as it is now named), as it is the place where political indiscretion, political activism and hashtag wars are reached out to. It is free to everybody, all people are posting short messages, and the culture of hashtags would be the gold of linguistic research. The dataset consists of tweets containing the hashtag ClimateMarchPK and tweets that were published in the weeks of the official dates of the climate march in Pakistan. Researchers tried to draw original tweets and retweets to the extent that it was possible to obtain what people were saying, along with how the message was transmitted and amplified.

Data Collection Methods

The Researcher applied a two-pronged strategy, which has provided me with a good combination of data.

Twitter/X Data Mining

The Researcher gathered tweets by searching using hashtags. The researcher added filters wherever they could and reduced it down to:

Specific event dates

English/Roman Urdu language.

Pakistanis and Pakistanis themselves.

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This assisted the researcher in capturing a big sample, which is representative of real-time chatter during the march.

Manual scrolling and selection are performed at the third place, 3.3.2.

Since the automated tools may fail to pick up subtle situations, the researcher scrolled through the results manually as well. This enabled me to catch tweets containing pictures, catchy phrases or anything truly creative wording. The researcher ensured to include works of others in the form of replies or as quote Tweets, which contained high emotions or sentiments and filtered out spam or other unrelated material. The method of picking by hand, in particular, helped identify some of the real youth voices, as in their bios or tweets, a great number of people specified their age, their status as a student or their role as an activist

Sampling Criteria

To narrow down the sample, the researcher used the following criteria in the selection of tweets:

- Has to include the hashtag of climatemarchPK.
- Must be publicly accessible.
- Should have been defended during the period of the climate march.
- Should be written by a person who appears to be a youth (15-30 years or so) according to his or her own description, or the description provided by the profile.
- Can be either plain text, emojis, hashtags, images and slogans.
- Leave out purely promotional, irrelevant and other unrelated climate information.

Size of Data and Corpus Preparation.

Once the corpus had been tidied and filtered, the researcher was left with a clean corpus on which to analyse it. The cleaning steps were:

- Remove duplicate tweets.
 - Omit automated bot content.
 - Normalise text- Remove URLs, usernames and unnecessary punctuation marks.
- After that, the researcher sorted the final dataset into such categories as:
- Tweet text
 - Hashtags used
 - Emojis used
 - Date of posting
 - . Likes (reactions and reactions)
 - . Retweets (reactions and reactions)
 - . Reply (reactions and reactions)
- Zimmerlike format ensures that running systematic linguistic and thematic analyses become easier.

Analytical Framework

Researchers have divided the analysis into four major steps.

Analysis of Keywords and Frequencies.

In this case, the researcher counted the frequency of the use of some words, hashtags,

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and emojis (e.g., climate, future, action; #ClimateAction, #YouthForClimate; ☐, ☐, ☐). This action demonstrated the most frequent lexical decisions and patterns of youth speech.

Sentiment Analysis

The researcher read the tweets to understand their general mood and divided them in categories as:

Positive (hope, motivation, optimism).

None (anger, frustration, fear)

<|human|>Itsness (anger, frustration, fear)

Any information that is not promotional in nature is considered to be neutral (informative or descriptive).

Rather than directly automating my evaluation, Researcher was very attentive to evaluative language, emotional clues, and situation.

Emotion Analysis

To elaborate further, researchers have been able to determine certain emotional phrases in the tweets. The researcher categorised emotions into:

Hope and optimism

Anger and frustration

Fear and urgency

Pride and solidarity

This enabled me to be able to view the emotional preparations of youth concerning climate change and activism.

Thematic Analysis

The researcher identified the underlying themes that kept on recurring as the central issues using inductive coding:

Young political mobilisation and youth activism.

Environmental education and environmental awareness.

Opinion on the government and institutions.

Cries of solid action and duty.

Global climate solidarity

This section allowed me to learn about the general narratives that the hashtag #ClimateMarchPK involved.

Ethical Considerations

The researcher adhered to the rules of ethics. The researcher never accessed any type of private or deleted tweets and had limited themselves to seeing merely public ones. The anonymity of the users and any personal information was anonymised. The research adheres to ethical standards of social media research, and no data from the user-generated materials is repackaged and abused by me.

Methodology Limitations The methodology is limited by the following reasons:

Although the approach is quite strong, it has several limitations:

The research is carried out concerning Twitter/X only, disregarding other apps such

as Instagram and TikTok.

The analysis of language is possible in English and Roman Urdu.

The identification of youth users is based on self-reports or presumed data, which is not always accurate.

However, these drawbacks do not invalidate the research; they only indicate the possibilities in the future.

Analysis (with Tweet Evidence).

The chapter provides details regarding how we analysed tweets posted in the hashtag #ClimateMarchPK. Researchers have even given some real Twitter snippets (scrubbed our names) so you can see what researcher talking about. Researchers used the traditional corpus linguistics practices and added sentiment analysis and discourse studies to get a better understanding.

Introduction Graphs in Keyword Frequency Analysis Using Tweets.

To determine which words formed the conversation, we counted the occurrence of some words. Similar to the examples of Baker (2006) and McEnery and Hardie (2012), we discovered that the largest items were climate, action, future, youth, Pakistan, and justice. These words reveal that the atmosphere is activist and future-looking.

Example Tweet 1:

Today, our future is on the streets. Pakistan's youth need action to stop climate! #ClimateMarchPK"

This demonstrates how the terms future, youth and action become crammed into a tight space in order to confer urgency and responsibility upon the coming generation of climate change. According to Corner et al. (2015), such framing has the effect of enhancing moral engagement among the youth.

Example Tweet 2:

Climate justice is not an option, but a need for Pakistan. #ClimateMarchPK #ClimateAction"

The constant emphasis and use of justice linger on with the notion of Fairclough (1995) that it is not just science but rather a matter of fairness and morals.

Sentiment Analysis using Tweet Ex samples.

With the help of the common positive-negative-neutral scheme of Pang and Lee (2008) and Liu (2012), we examined the emotional tone. There were the most favourable tweets, followed by slightly negative, and a little bit of neutral.

Positive Sentiment

Example Tweet 3:

I have hope that seeing so many young people as representatives of the planet will change the situation. Change is coming! #ClimateMarchPK"

This one is optimistic. O'Neill et al. (2020) believe that optimistic communication

boosts participation and retention of individuals in climate activities.

Negative Sentiment

Example Tweet 4:

The reason why we march again is that our leaders are not ready to take any action, yet the nation experiences floods and heatwaves. #ClimateMarchPK"

This voice is a frustration of the government. Smith and Joffe (2013) claim that when people are angry, it can actually be seen to mobilise them to protest and not take no action.

Neutral Sentiment

Example Tweet 5:

Videos "Climate March underway in Islamabad. Students, youth groups and activists in attendance. #ClimateMarchPK"

The neutral ones primarily propagate information as seen in the perspective of Bruns and Burgess (2011), that Twitter is a place of activism and news.

Tweet Analysis using Tweets.

Tweets were labelled with the help of Plutchik (1980) emotion model. The best feelings were hope, anger, fear and solidarity.

Hope and Optimism

Example Tweet 6:

With this march, we see how we are strong and tough. With our joint efforts, the planet will be safe. #ClimateMarchPK"

Optimistic discussion of this nature has been reflected in Nabi et al. (2018), who affirm that hope has a way of helping people in the long game.

Anger and Frustration

Example Tweet 7:

Still enough promises, we will have action. Disasters of climate are already present. #ClimateMarchPK"

This coincides with Van Zomeren et al (2012) concept of the role of groups in influencing anger in the social movements.

Fear and Urgency

Example Tweet 8:

As long as we remain quiet today, we shall not be able to live tomorrow. The problem of climate change is not a far-fetched one. #ClimateMarchPK"

Fear and urgency are parallel to the explanation posed by Witte and Allen (2000) that fear is most efficient together with solutions.

Emojis and Multimodal Analysis using Tweets.

Emojis can serve as added value to online conversations (Danesi, 2017). They turn emotion and express it.

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Example Tweet 9:

"No planet B Time to act now! #ClimateMarchPK"

The peril is supported by the globe and fire emojis background. According to Kress and van Leeuwen (2006), such images increase the effect of salience and emotion.

Example Tweet 10:

Standing united for climate justice #ClimateMarchPK.

The fist and green heart emojis are solidarity, which resembles the ambient affiliation as proposed by Zappavigna (2012).

Tweet Analysis with Thematically Collected Data.

We traced Braun & Clarke (2006) and pulled five major themes out of them:

Youth Leadership and Youth Activism.

Example Tweet 11:

We are the generation that does not want to remain silent. Young people at the forefront of the climate struggle. #ClimateMarchPK"

According to Pickard (2019), it demonstrates that the youth is reinventing politics online.

Environmental Consciousness and Training.

Example Tweet 12:

Pakistan is a significant contributor to the effects of emissions, but the one suffering the most. It is important to be climate-conscious. #ClimateMarchPK"

Such a tweet corresponds to education, as Leiserowitz et al. (2021) state.

Criticism of Authorities

Example Tweet 13:

Unless there is a change in policies, marches will not end. Leaders must act now. #ClimateMarchPK"

According to Fairclough (1995), power imbalances are combated by such language.

Collective Responsibility

Example Tweet 14:

The world should take cognizance against climate change. Change starts with all of us. #ClimateMarchPK"

Bandura (2000) discusses collective efficacy, as is being experienced.

Global Climate Solidarity

Example Tweet 15:

We voice our climate demands to the world. #ClimateMarchPK #GlobalClimateStrike"

Castells (2015) perceives this to be a component of networked social movements.

Conclusions and Recommendations.

Conclusion

In this review, we have attempted to unearth the language peculiarities and the emotional undertones that emerge in the discussion around the hashtag of the ClimateMarchPK, particularly among Pakistani youth. We combined some techniques, frequency counts of keywords, sentiment analysis and emotion analysis, as well as a thematic deep-dive to give ourselves a full-stack perspective of how youngsters in Pakistan are discussing climate and organising activism online. According to our findings, the discussion around the #ClimateMarchPK is full of do-it-now words, such as climate, action, youth, future, and justice. These buzzwords create a vision of a generation that is tall on its shoulders and already on the clock, and which is perceiving climate change as a crisis that is not only an impending crisis but is also a legacy they will inherit. The fact that more and more global climate hashtags continue to be created caught our attention, too, letting us know these voices are not local-only, but instead, they are connecting to the global environmental team. On breaking down sentiments, we beheld the greatest signals of hope and optimism, but they were not solitary; they smashed into anger and frustration, into fear. This combination of emotions indicates that the youth climate talk is not whining only, it is a playBook that must be used strategically to get people excited and mobilise participation, scream out in opposition, and make someone responsible. The irritated and frustrated tones create an alert of a genuine unhappiness with the institutional slack and the enthusiastic language in the task breaks open unity and provides an impression that the entire group has the potential to move the needle.

Emoji and other visual sprinkles are also present in posts, and they are an excellent way to emphasise the emotions and establish a digital connection impossible in real life. Emojis serve as small pieces, as mini-icons that create a sense of urgency, community, and environmental awareness and fill the void caused by the lack of face-to-face communication. The thematic analysis supported the findings that the virtual community of youth leaders, climate science, and political activism and solidarity around the globe is achieved by and through that hashtag, namely, ClimateMarchPK. The Pakistani students portray themselves through their language as active citizens who are taking the climate movement to the headlines. Overall, the research demonstrates that hashtag activism is not superficial enough - it has the wordwork and the emotional weight needed to influence the discourse of the masses and mobilise children in Pakistan.

Recommendations

Drawing on what we learnt, the following would be some of the practical recommendations to scholars, policy makers, educators,/activism groups.

Polymakers' recommendations.

The policy makers and state agencies need to monitor the way young people twist climatic narration through social media. The language patterns that we discovered are reflective of some actual public anxieties and action requests. By integrating the perceptions of youth in the policy drafts, the officials will be able to increase trust, and the policies will be on target. Remember to lay out climate plans in a more

transparent format with the use of kid-friendly language and online platforms. The findings of this work can be embraced by NGOs and climate crusaders to step up their online campaigns. Emotional words, strategic hashtags, and intelligently stifled emojis can rev up the engagement and increase the reach. Having a combination of urgency and optimism within the campaigns will help to keep young minds on the cause and avoid fatal climate fatigue. Learning institutions must incorporate into their curriculum outlines digital climate literacy where they challenge students to culminate online climatic arguments and take personal accountability. Education on how a language shapes the perception and mobilisation can make students better fighters for green futures.

The possible pathways of future new research would be: Conduct a cross-platform sweep, which pulls Instagram, TikTok, and Facebook data. Research hashtags used globally that are climate-oriented to pick up cultural spin on the discussion. Import computational capabilities such as corpus software and machine-learning sentiment detection into the analysis of bigger data sets. Altogether, map the changes of climate chatter with time in more than one of the marches or outside events. The media geniuses ought to identify the broadcast power of youth-created materials and highlight believable climate news stories by grass-roots groups. Empathy to report and work next to the teen activists can close the gap between digital activism and the discourse of the mainstream media.

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