

Navigating The Digital Landscape: Social Media's Influence on Climate Activism and Environmental Awareness

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ABSTRACT

The advent of Social Media Platforms has revolutionized information dissemination, granting individuals unprecedented ability to share opinions and content on a global scale. This transformation has empowered environmental activists, leveraging social media as a potent tool to mobilize communities and amplify messages regarding climate change. Through algorithmic mechanisms, social media platforms facilitate the rapid dissemination of climate-related content, enabling activists to build communities, mobilize individuals, and broaden the scope of their advocacy efforts. By addressing a spectrum of environmental issues, from climate change to resource conservation, activists harness social media's global reach to foster solidarity and catalyse mass movements transcending geographical boundaries.

The paper aims to investigate the pivotal role of social media platforms in raising awareness about climate issues, examining the strategies, challenges, and opportunities inherent in digital activism. Drawing on case studies of successful climate activists worldwide, the research elucidates the contribution of social media in fostering grassroots mobilization and promoting environmental consciousness. Additionally, the study explores the efficacy of digital content in engaging audiences and inspiring action, highlighting innovative approaches utilized in climate advocacy within the online realms. Through comprehensive analysis, the paper sheds light on the transformative potential of social media in shaping environmental discourse and catalysing tangible outcomes in the fight against climate change.

Keywords: Social Media, Climate Change, Environment, Activism

I. Introduction

Overview of Climate Change

Our planet is undergoing profound and enduring changes in both global and regional climate patterns, evidenced by escalating temperatures and a surge in extreme weather occurrences. The United Nations identifies human activity, particularly the combustion of fossil fuels, deforestation, and industrial processes, as the primary catalyst for climate change (United Nations, n.d.). Climate change, distinguished by significant alterations in average weather conditions over extended periods, differs from natural weather variability (Climate Knowledge Portal, n.d.). The repercussions of climate change are profound, ranging from global warming and heightened incidences of extreme heat, cold, and precipitation events to rising sea levels and catastrophic storms, all of which have severely disrupted ecosystems and biodiversity.

Though the issue had started with human activities at grassroot level, its impact has been witnessed across the globe, and thus demand collective measures that include reduction of greenhouse gas emissions, transition to renewable energy sources, and promote energy efficiency. Further, individuals need to be pushed to adapt strategies including disaster preparedness, infrastructure improvements, etc. to cope with and respond to its impact. These strategies require investment and awareness, and demand action from all including developed, developing and under-developed countries.

Climate change is not just a topic one reads about in books or foresees in future, it is happening now affecting lives of half of adults across the globe, out of which one third are forced to flee from their homes. Across 34 nations from Mexico to China and South Africa to Sweden, an average of 56% say climate change is already having severe effects. (Broom, 2022) This makes it a pressing issue to be addressed by whole of humanity, and can't just be left for the suffering nations, or ruling bodies to take actions and change the course. The countries, industries and

business that have contributed the most, need to take the most conscious actions to redeem the balance of nature. To ensure that corrective measures are taken by all to recover the damage caused to the environment and to further stop degrading the harmony of nature, various international agreements have been made, including Paris Agreement, Kyoto Protocol, etc.

Rise of Digital Communication

One of the biggest challenges posed in countering the effects of climate change is the lack of knowledge among people. (Jr., 2023) Ignorance at various levels is prevailing, from denying the fact that climate change is real, the contributors to it to the ways people can engage in activities for its prevention. Additionally, the thought ‘what can we do?’ gets easily converted into ‘let the government/ruling bodies take actions.’ Fighting this ignorance at various level can serve as a great contributor to combat climate change.

Evolution of channels for mass communication has witnessed immense technological advancements over years, from print, radio, television to the Internet Technologies. A blend of interpersonal communication and mass communication is observed in social media platforms, that serves as a highly accepted platform, where people spend most of their time and attention, which can be leveraged for fighting the ignorance of climate change effectively.

Feeding information and keeping scope for interpersonal communication play a major role in completely unaware and problem aware stages of raising awareness. Through AI based targeting of content, social media platforms efficiently deliver the information to the right audience and provide a channel to interact at the same time in case of query, posing review or opinion. This acts as a powerful tool for building community, pushing the content further to broader audience, hence serving as proficient tool for activism.

Role of social media in Activism

The strength of the social media community lies in the widespread usage of various platforms across the globe, amplifying content on any topic to reach a diverse audience and garnering a multitude of perspectives, angles, and innovative approaches from individuals worldwide. When a single thought or idea resonates with a larger number of people, the momentum of a social media movement intensifies, fostering widespread engagement and participation. It takes a form of activism when these individuals take actions at their levels supporting the movement.

The ALS Ice Bucket Challenge, MeToo Campaign, Black Lives Matter, and Fridays for Future are just a few examples of the many impactful social media activism movements witnessed across the globe. The campaigns thus held not only help online community in democratizing access of information, but also enforce advocacy over the issue. Time and again, activism through social media is employed as a tool to bring social change and justice.

Fridays For Future (FFF) is one of the most effective social media campaigns under climate activism witnessed across the globe. It had set the wave across the globe, in which youth organized climate strike movement. Such mass movements compel the people to know about the issue and understand the situation, whilst aptly raising awareness.

Research Objectives

- Examine the strategies employed by climate activists in raising awareness through social media.
- Explore the challenges and opportunities in leveraging social media platforms.
- Analyse the role of digital storytelling and visual communication in engaging audiences and inspiring action.

Research Problem Statement

Despite the recognized importance of social media in driving climate activism and raising awareness about the urgency of addressing climate change, there remains a gap in understanding the specific impact of climate activists' social media content on generating engagement and mobilizing support. While existing literature acknowledges the role of social media as a prominent tool for activism, there is limited research that systematically analyses the types of content shared by climate activists, the level of engagement it generates, and its effectiveness in driving momentum for climate action. Therefore, the research problem addressed in this study is to investigate how climate activists' social media content contributes to creating buzz, fostering engagement, and mobilizing support for climate action, with a focus on understanding the types of content that resonate most with online audiences and the factors that influence its effectiveness. Through this research, we aim to provide insights that can inform strategic communication approaches and enhance the impact of climate advocacy efforts in the digital age.

Significance of the Research

The significance of this study lies in its exploration of the impact of climate activists' social media content on generating buzz and engagement within the online community. By analysing the types of content shared by climate activists, such as informational posts, personal stories, and calls to action, and examining the level of engagement generated, including metrics such as likes, comments, shares, and views, this research sheds light on the effectiveness of social media as a tool for mobilizing support and driving momentum for climate action. Understanding how climate activists' digital advocacy efforts resonate with online audiences is crucial for informing strategic communication approaches and

maximizing the reach and impact of climate advocacy campaigns in the digital age. This study contributes to the growing body of literature on digital activism and highlights the importance of harnessing the power of social media to amplify the voices of climate activists and advance the goals of the global climate movement.

II. Literature Review

Understanding climate change and its implications requires effective communication strategies that can reach diverse audiences and inspire action. In recent years, researchers have explored various communication channels, from traditional media to social media platforms, to disseminate information about climate change and promote engagement with this critical issue.

The awareness and understanding of climate change among individuals of different age groups have also been explored in various studies. A study on Media coverage of climate change journalistic perspective practice found that older journalists, particularly those in the age group of 50 to 60 years, tend to have higher awareness scores across different knowledge scales related to climate change. (Cheertha & Sapna, 2020) However, the most affected generation with the adverse effect of climate change is today's youth, who need to be made aware. Despite efforts to disseminate information about climate change through the internet and websites, a significant portion of the population still reports limited learning from these sources. For instance, in a study on mass media and climate change perceptions among youth, it was found that over 50% of respondents indicated that they had not learned anything about climate change from the internet, while only 30% reported learning a lot from online sources. (Sarada & Neelima, 2019)

In creating awareness regarding the issue, mass media consumption plays important role. A perception study concluded that heavy users of mass media platforms are significantly more likely to be informed about the consequences of climate change compared to occasional users.

(Upadhyaya & Nagaraj, n.d.) This underscores the importance of mass media as an effective tool for disseminating information and shaping public perceptions regarding climate-related issues. In addition to traditional mass media channels, social media platforms have emerged as powerful communication tools for climate action. For instance, when individuals are provided with opportunities for interaction or active participation, such as through open publishing or commenting, they develop a sense of engagement within a community. (Atkinson, 2017) The internet and social media not only help individual disseminate information to a wider audience and foster networks but also a platform where they can promptly share content, with perceived or actual anonymity. (Brannen, 2020) Participants in a study highlighted the efficacy of social media in reaching diverse audiences and facilitating global connections among youth. (Grace Arnot 1, 2024)

The varied research studies underscore the importance of various social media platforms in facilitating climate activism and communication. Cernison highlights the pivotal role of web and social media platforms in facilitating the organization of communication efforts among activists. These digital tools allow activists to coordinate their actions, share relevant information, develop unified messages, and disseminate them widely, all without relying on traditional media outlets that they may not have control over. In essence, web and social media platforms empower activists to bypass conventional channels and directly engage with their audience, amplifying their message and influence in the process. (Cernison, 2019)

According to Grant Armour, social media platforms like Instagram have been leveraged by young climate activists to amplify their messages and mobilize support for climate action. (Grant Armour, 2020) Narratives and storytelling have also been recognized as powerful tools for promoting climate action, which is important in the information loaded world. (Mäkelä, 2024) Participants in a study expressed support for messages emphasizing the urgency of action, relying on trusted celebrity and youth voices, and providing practical information to

encourage engagement. (Grace Arnot 1, 2024) Further, instances of individuals utilizing social media platforms effectively for climate activism are also evident. For instance, in Uganda, youth are actively participating in public consultation procedures to voice their viewpoints regarding the formulation of a national climate change bill. These youth climate advocates have established networks and leveraged platforms like Facebook and WhatsApp, which have played a pivotal role in orchestrating participation in formal policy discussions. (Benkenstein et al., 2020)

Despite the significant role that social media activism plays in garnering international support for climate action, challenge in this realm persists. One of the fundamental hurdles is the difficulty in accurately gauging the impact of global campaigns. is the difficulty in accurately gauging the impact of global campaigns (Kringen, 2012), underscoring the need for more effective metrics and evaluation methods to assess the effectiveness of climate activism efforts on social media. Secondly, while platforms like Twitter (now X) can amplify climate messages, they also provide avenues for climate change skeptics to spread misinformation. (Mede & Schroeder, 2024) Another study identifies challenges such as potential influence on key decision makers. (Grace Arnot 1, 2024). Due to this polarization of pros and cons of social media on climate activism, a study in Turkey revealed that two forms of discourses communicated, one where the activists are discussing the issue and aiming to spread awareness and the other denying the climate change, rejecting the idea of global warming and climate crises altogether. (Eslen-Ziya, 2022)

The need has been set, hence, for the researchers to study the insights covering the media landscape and investigate the dynamics between them. (Pearce et al., 2019) In conclusion, the review of literature highlights the multifaceted nature of climate communication and the diverse strategies employed to promote climate action. From traditional journalism to social media platforms, each communication channel offers unique opportunities and challenges for

raising awareness about climate change. By leveraging these platforms effectively and employing engaging storytelling techniques, climate communicators can foster greater understanding and urgency around the need for climate action.

III. Methodology

Research Design

The research design employed in this study adopts a mixed approach, combining both quantitative and qualitative aspects. The focus of the research centres on conducting case studies of prominent climate activists, examining their digital presence and impact on social media platforms. Quantitative analysis is utilized to delve into social media engagement metrics, encompassing factors such as likes, comments, shares, and follower counts, providing numerical insights into the activists' online reach and influence. Simultaneously, qualitative analysis is conducted to explore the content shared on social media by these activists, delving into the messaging, themes, and narratives presented in their posts. This comprehensive approach allows for a nuanced understanding of how climate activists utilize social media to communicate their message, mobilize support, and drive action on environmental issues.

Case Study Selection and Data Collection

For the case study selection and data collection process, the top three global climate activists identified from the Sustainability Magazine's list of "Faces of Change: The Top Five Youth Climate Activists" are considered. These activists, including Greta Thunberg, Haven Coleman, and Jerome Foster II, are recognized for their significant contributions to the climate movement on a global scale. (Hope, 2022) To investigate the role of social media in their advocacy efforts,

their respective social media handles on Instagram, Facebook, and X are examined. The duration of the study period for each activist's social media activity is determined based on Google Trends data, identifying the month within the past decade (from March 2014 to March 2024), when the activist was trending prominently. Data collection involves manually reviewing and documenting each post made by the activists on the selected social media platforms during the identified month. Parameters such as timestamps, captions, media types, locations, people tag, hashtags, and engagement metrics (including likes, comments, shares, and follower counts) are meticulously recorded in an Excel sheet for thorough analysis and interpretation.

Content Analysis Method

The content analysis method involves examining various aspects of the activists' posts, including textual content, visual elements, and engagement metrics. Textual analysis focuses on dissecting the captions, hashtags, and keywords used in the posts to uncover recurring themes, messaging strategies, and calls to action. Visual elements such as images and videos are scrutinized to identify visual storytelling techniques, symbols, and emotive imagery employed to convey the activists' messages effectively. Additionally, engagement metrics such as likes, comments, shares, and follower counts are quantitatively analyzed to gauge the audience response and the overall impact of the content. This comprehensive content analysis method aims to provide insights into how climate activists leverage social media platforms to raise awareness, mobilize support, and drive action on environmental issues.

Data Analysis Techniques

The data analysis techniques employed in this study involve a mixed-methods approach, combining both qualitative and quantitative methods to comprehensively investigate the role of social media in climate activism. Qualitative analysis is conducted through content analysis of social media posts from prominent climate activists, including Greta Thunberg, Haven Coleman, and Jerome Foster II. This qualitative approach involves examining textual and visual elements of the posts, such as captions, hashtags, images, and videos, to identify recurring themes, messaging strategies, and patterns of communication. Additionally, quantitative analysis is conducted on engagement metrics such as likes, comments, shares, and follower count to quantify the extent of audience engagement and assess the impact of the activists' social media presence. By integrating qualitative and quantitative methods, this study aims to provide a nuanced understanding of how climate activists utilize social media platforms to raise awareness and mobilize action on climate change.

IV. Case Studies of Climate Activists

In selecting case study subjects for this research paper, three prominent youth climate activists have been identified: Greta Thunberg, Haven Coleman, and Jerome Foster II. These individuals have emerged as influential voices in the global movement for environmental sustainability, leveraging their platforms to raise awareness, mobilize communities, and advocate for climate action. Greta Thunberg, renowned for her unwavering commitment to climate activism and bold advocacy efforts, has inspired millions worldwide through her Fridays for Future movement. Haven Coleman, a dedicated climate advocate and organizer, has spearheaded various initiatives to engage youth in climate activism, emphasizing the importance of intergenerational collaboration. Jerome Foster II, recognized for his innovative approach to

climate advocacy and commitment to environmental justice, has championed youth-led initiatives to address climate change at both the local and global levels. By examining the social media profiles and online presence of these three activists, this research aims to gain insights into their strategies, challenges, and impacts in advancing the climate activism agenda.

Platform	Followers	Posts
GRETA THUNBERG		
X	5.6 million	11.8 thousand
Instagram	14.4 million	965
Facebook	3.5 million	-
JEROME FOSTER II		
X	23.2 thousand	7605
Instagram	81.2 thousand	156
Facebook	505	-
HAVEN COLEMAN		
X	11.8 thousand	2072
Instagram	5501	226
Facebook	947	-

CASE STUDY 1 - GRETA THUNBERG

The study focuses on Greta Thunberg, a prominent Swedish climate activist, renowned for her advocacy efforts concerning climate change mitigation and environmental sustainability. In investigating her case, an examination of Thunberg's social media activity on Instagram, X, and Facebook has been undertaken. This scrutiny specifically targets the month when Thunberg achieved peak prominence, as evidenced by Google Trends data spanning the past decade. The analysis zeroes in on January 2023, the period during which Thunberg garnered the highest level of online attention. This chosen timeframe serves as the basis for the comprehensive review of Thunberg's social media posts across multiple platforms, enabling a detailed exploration of her digital engagement strategies, messaging tactics, and overall impact within the public sphere.



Timestamps

Greta Thunberg's social media activities reveal a consistent posting schedule across platforms. On Instagram, she shares five posts on January 6th, 13th, 20th, and 27th, 2023. Meanwhile, her X presence is notably active, with a total of 41 posts, including 1 reply, 30 reposts, and 10 original contents. For studying Greta's X activity, her original content is considered. Her

Facebook activity appears less frequent, with only one post observed during the specified time frame.

Caption

Greta Thunberg's social media presence resonates consistently across platforms, with a strong focus on climate advocacy. On Instagram, her captions center around keywords such as "climate strike," "climate crisis," "climate justice," and "fossil fuels," while her hashtags frequently include #FridaysForFuture and #ClimateStrike. This reflects her assertive and urgent tone, urging followers to join movements for climate justice and emphasizing the impacts of climate change on communities. Similarly, on X, Greta emphasizes keywords like "climate crisis," "climate justice," and "climate activism," accompanied by hashtags such as #FridaysForFuture and #ClimateActionNow. Her posts convey a passionate determination to mobilize people for climate activism and hold leaders accountable, with informative and urgent tone in the captions. On Facebook, her messaging maintains a concise and focused tone, urging participation in climate strikes and advocating for climate justice, with keywords and hashtags aligning closely with her Instagram and X content. Overall tone of the message on her social media is Assertive, Informative and Call to Action based.

Posts with Media

Greta's Instagram posts in January 2023 include a mix of four photos and one video often featuring people engaging in activism. The video post is more than a minute long, which is her interaction with IOM (International Organization for Migration, UN Migration). She talks about the cases where people have to migrate due to climate crises. On X, she shares a total 10 original posts, 7 with photos, 1 post with one-minute-long video and 2 with text, all showcasing a variety of content to engage her audience. Meanwhile, her Facebook activity is limited to one photo post, indicating a preference for visual storytelling across platforms.

Engagement Metrics

Across Instagram, X, and Facebook, Greta Thunberg's social media posts generate significant engagement. Her Instagram posts engagement indicates a high level of interaction from her followers. On X, her original content posted (posts and replies on X) showcase a broad reach and active engagement. On Facebook, although her presence is less frequent, the engagement metrics further underlines the impact of her advocacy efforts across platforms.

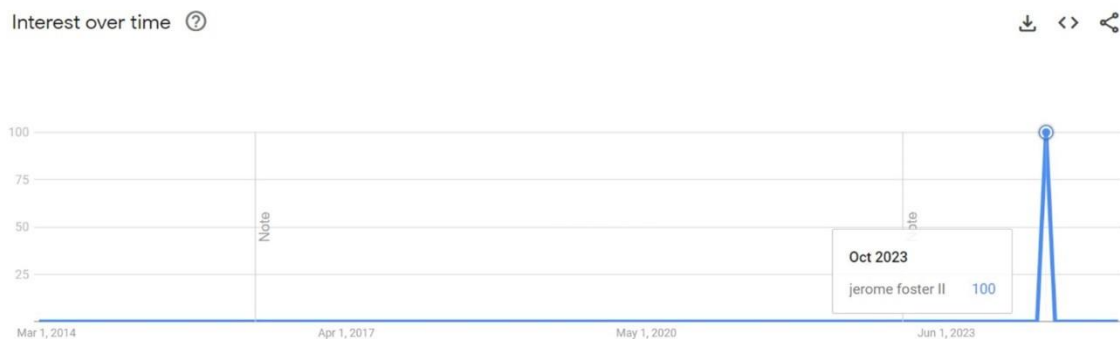
Following table illustrates the substantial engagement Thunberg achieves across Instagram, X, and Facebook, emphasizing the effectiveness of her social media strategy in amplifying her climate activism message.

Platform	Likes	Comments	Reposts/Share
Instagram	7.3 lakh	25,371	-
X	3.23 lakh	46,166	45,380
Facebook	45 thousand	5.4 thousand	1,600

In January 2023, Greta Thunberg demonstrated a robust and impactful social media presence across Instagram, X, and Facebook. With a total of **16 original content posts**, including 12 photos and 1 video, Thunberg effectively utilized multimedia to convey her climate advocacy message. The overall engagement metrics reflect the resonance of her message, with a cumulative total of **12.02 lakh** likes, comments, and shares across all platforms. Thunberg's strategic use of social media platforms, coupled with compelling content and consistent engagement, underscores her influence and effectiveness in mobilizing support for climate action.

CASE STUDY 2 - JEROME FOSTER II

In exploring the case of Jerome Foster II, a prominent American environmental activist and the youngest individual to ever serve as a White House advisor, an in-depth analysis of his social media presence across Instagram, X, and Facebook has been conducted. The investigation centres on a specific month, October 2023, identified as the most trending period for Foster based on Google Trends data spanning the past decade. This selected timeframe offers a comprehensive view of Foster's digital advocacy efforts, allowing for a nuanced examination of his engagement strategies, messaging approaches, and overall impact within the realm of environmental activism. By scrutinizing Foster's social media activity during this peak period of online attention, researchers aim to uncover insights into his effectiveness in leveraging digital platforms to drive awareness, inspire action, and advocate for climate change mitigation and environmental justice.



Timestamps

Jerome Foster II's social media activity is timestamped, showing a consistent engagement over time. In October 2023, he made four Instagram posts, indicating a regular cadence of content sharing. On X, there were four posts, including two original posts and two reposts, suggesting active participation in ongoing conversations. However, there were no posts on Facebook during this period, indicating a platform preference or strategic focus on other channels.

Caption

On Instagram, Jerome Foster II's captions are rich in keywords such as "regenerative," "environmental justice," and "climate change," reflecting his advocacy for sustainable solutions and social equity. Hashtags like "#ClimateChange" and "#EnvironmentalJustice" amplify his message and connect him with broader climate activism discussions. The tone of his captions is urgent and passionate, underscored by a sense of gratitude for speaking opportunities and a commitment to raising awareness about environmental justice issues. Similarly, on X, Foster's captions highlight keywords like "clean energy," "infrastructure," and "holistic collaboration," conveying his dedication to inclusive environmental activism. Overall tone of message in Jerome Foster II's social media content is assertive.

Posts with Media

Jerome Foster II shares engaging content across platforms, including photos and videos. On Instagram, he shared eight photos in four posts, indicating a visual storytelling approach to complement his advocacy messages. On X, there were two posts with two photos and no video, showcasing a multimedia strategy to reach diverse audiences and convey his environmental justice narrative effectively.

Engagement Metrics

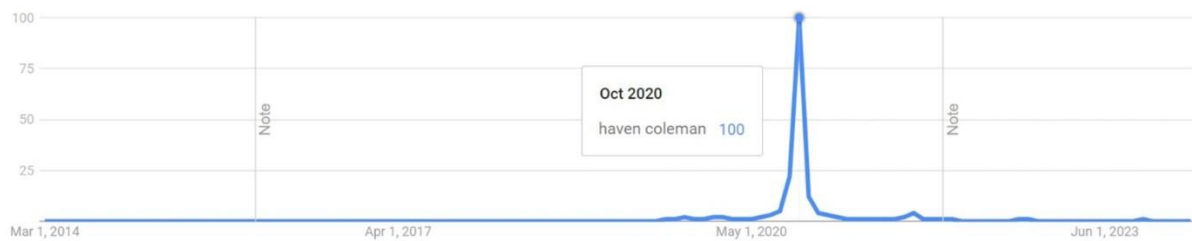
Jerome Foster II's social media posts generate significant engagement, indicating a strong resonance with his audience. On Instagram, his posts receive more than 400 likes, though exact numbers are hidden, and attract 50 comments, including interactions from verified accounts, demonstrating active participation and dialogue around his content. Similarly, on X, his posts garner a robust engagement and reflect amplification of his advocacy messages within the X community.

Platform	Likes	Comments	Reposts
Instagram	>400	50	-
X	20	3	10

In October 2023, Jerome Foster II maintained an active presence on Instagram and X, with a total of **6 posts** across both platforms and no activity on Facebook during the period. Among these posts, 10 photos were shared, indicating a preference for visual storytelling. Foster II's content garnered a cumulative engagement of **483** likes, comments, and shares across all platforms.

CASE STUDY 3 - HAVEN COLEMAN

In examining the case of Haven Coleman, an 18-year-old American climate activist inspired by Greta Thunberg, a comprehensive analysis of her social media engagement across Instagram, Facebook, and X has been undertaken. Coleman's involvement in the climate strike movement, fueled by her admiration for Thunberg's activism, underscores her commitment to environmental advocacy. The month of October 2020 has been selected for this study, identified as the most trending period for Coleman based on Google Trends data spanning the past decade. This chosen timeframe serves as the focal point for a detailed exploration of Coleman's digital footprint, including her online activism, messaging strategies, and efforts to mobilize support for climate action. By delving into Coleman's social media activities during this pivotal month, researchers aim to gain insights into her role as a young climate leader, her impact on public discourse surrounding environmental issues, and her effectiveness in leveraging digital platforms to drive meaningful change.



Timestamps

While there are no posts on Instagram and Facebook, the X account shows considerable activity with 109 actions recorded, with 29 original contents (posts). This indicates a focus on X as the primary platform for sharing content and engaging with the audience.

Caption

The X caption reflects a deep engagement with climate activism and urgent calls for action. It highlights keywords related to voting systems, climate crisis, wildfires, health issues, racial discrimination, and environmental activism. The tone is urgent, critical, and empathetic, emphasizing the interconnectedness of climate change with social, political, and environmental issues. Hashtags like #ClimateAction, #MessageFromTheFutureII, #ClimateCrisis, #ClimateScore, #survivorcorps, #DiversityInClimate, #PowerStructures, #InFauciWeTrust, #IndigenousPeoplesDay2020, #GoBuffs, #ClimateFires, #COWx, #wildfire, #CameronPeakFire and #EastTroublesomeFire are used. Overall tone of messages in Haven Coleman's content on social media is Informative, Reflective and Inspirational.

Posts with Media

With 18 posts containing a total of 20 photos and 7 posts featuring videos, the X account utilizes multimedia content effectively to convey its message. This indicates a recognition of the power of visuals in storytelling and engaging audiences on social media platforms. Additionally, blogs, news articles, etc is shared in 3 of Haven's X posts.

Engagement Metrics

Haven Coleman's social media presence appears to be primarily focused on X, where her engagement metrics indicate a comparatively lower level of interaction with her audience. Despite maintaining a consistent posting schedule, her X activity garners less engagement, and notably, she shows no presence on Instagram and Facebook during the considered period.

Platform	Likes	Comments	Reposts
X	432	40	147

This suggests that while Coleman is active in sharing content, her reach and impact may be limited compared to other platforms or influencers. The lack of presence on Instagram and Facebook also underscores a potential missed opportunity to diversify her audience and amplify her advocacy efforts across different social media channels.

Haven Coleman's social media activity in October 2020 was exclusively focused on X, where she posted a total of **29** times showcasing her consistency. However, the cumulative engagement of **619** likes, comments, and reposts suggests a relatively modest level of interaction compared to other influencers or activists.

V. Content Analysis of Social Media Campaigns

In this paper, a Content Analysis method is employed to delve into the intricacies of social media posts and activities led by activists. Focusing on the content disseminated by these activists, particular attention is paid to two pivotal elements: digital storytelling and visual communication. Through this method, a comprehensive understanding of the strategies employed, along with the opportunities and challenges therein, is extracted. Digital storytelling is meticulously analyzed by scrutinizing the tone of the content shared and assessing its corresponding engagement metrics. Meanwhile, visual communication is examined by dissecting the types of media utilized and evaluating their impact on audience engagement.

Messaging Strategies and Themes

In studying messaging strategies and themes, the analysis delves into the realm of digital storytelling, examining how activists craft narratives and engage their audience through their social media content. The messaging strategies employed by activists are meticulously examined by analyzing the tone of each caption accompanying their social media posts. Through this analysis, various tones such as informative, urgent, inspirational, reflective, and more are identified and categorized. This thematic categorization of social media posts provides insight into the diverse messaging strategies employed by activists.

Posts with a call-to-action (CTA) tone prompt followers to engage in specific actions, such as signing petitions or joining protests, thereby encouraging direct involvement in activism. Assertive posts focus on personal updates or activities of the activists, showcasing their ongoing commitment to the cause and maintaining a strong presence within the movement like updates about what week of climate strike is going on or what lecture is delivered by them. Informative posts deliver updates and information related to the climate crisis, serving to educate and raise awareness among the audience. This is also done by attaching/sharing blogs,

news articles, reports or facts. Inspirational posts aim to motivate and inspire followers to take action, fostering a sense of empowerment and unity within the community. Reflective posts encourage introspection and contemplation, prompting individuals to reflect on their beliefs and values regarding environmental activism. Interactive posts facilitate engagement by inviting audience participation, encouraging dialogue, like asking the audience to suggest caption on some photo shared. Additionally, urgent posts convey a sense of immediacy and importance, like giving updated about the wildfire and instructing to stay out of downtown, while sarcastic posts employ irony to critique opposing viewpoints or highlight contradictions in climate discourse.

The corresponding table offers a concise visual representation of the insights from the data, highlighting the prominent messaging themes employed in climate activism on social media platforms. Additionally, the engagement metrics associated with each tone further elucidate the effectiveness of these themes in driving audience interaction and participation.

Activist	Tone	Posts	Likes	Comments/ Replies	Shares/ Reposts	Overall Engagement
Greta Thunberg	Assertive	5	428826	20201	6200	455227
	Call-to-action	6	451622	23556	8480	483691
	Informative	5	202400	31680	29700	263780
Jerome Foster II	Assertive	5	420	42	10	472
	Informative	1	100+	11	-	111
Haven Coleman	Assertive	1	1	0	0	1
	Call-to-action	1	3	0	2	5
	Informative	14	225	9	103	337
	Inspirational	2	21	1	6	28
	Interactive	1	8	0	4	12
	Reflective	5	134	29	26	189
	Sarcastic	3	25	1	3	29
	Urgent	1	7	0	2	9

It becomes apparent that informative, assertive, and call-to-action-based tones are prominently utilized in climate activism, reflecting the urgency and commitment of activists to raise awareness and mobilize support for environmental causes. The insights from the data further reveals that assertive and call-to-action-based messages generate high engagement, underscoring the audience’s inclination to participate when provided with clear avenues for involvement in climate activism. Moreover, informative content emerges as particularly effective in stimulating audience interaction, as evidenced by the relatively high numbers of

comments and shares/reposts observed in such messages. These findings suggest that while providing actionable information prompts immediate engagement, delivering informative content fosters deeper involvement and dialogue among the audience, contributing to the broader discourse on environmental issues.

Influence of Visual Communication

Visual communication plays a pivotal role in the messaging strategies of activists, encompassing a variety of media formats such as photos and videos to bolster their advocacy efforts. These visuals range from informative infographics sharing critical facts and statistics concerning climate crises to images and videos capturing the activists themselves delivering speeches or participating in interviews. The selection of media format is carefully tailored to ensure that the intended information is effectively conveyed to the audience. However, following data reveal the impact of their usage.

Activist	Media	Posts (Number)	Likes	Comments/ Replies	Shares/ Reposts	Total
Greta Thunberg	Photos	12 (12)	836526	45200	21000	902726
	Videos	2 (2)	72955	3151	2100	78206
	No Media	2	86700	27086	21280	221766
Jerome Foster II	Photos	6 (10)	420+	53	10	483
Haven Coleman	Photos	5 (6)	3	2	13	38
	Videos	1(1)	2	1	0	3
	No Media	23	407	37	134	578
	Publication (Subset of no Media Post)	3	17	0	6	23

The data presented in the table indicates a clear preference among activists for using photos as the primary media format to support their content, yielding significant engagement among their audience. Interestingly, video posts, while still utilized, tend to generate the least engagement compared to other media formats. It's noteworthy that the videos shared by activists in their respective months of study are typically more than a minute long, potentially impacting viewer retention and engagement. Conversely, posts with no media at all often generate greater engagement than video posts, suggesting that concise visual communication may be more

effective in capturing audience attention. Additionally, posts containing links to external publications or resources appear to be less effective in generating engagement. Thus, the usage of photos as a form of visual communication, delivering crisp information, emerges as the most impactful tool for engaging audiences in climate activism efforts.

VI. Findings

Based on the analysis conducted in this study, several key findings have emerged regarding the effectiveness of messaging strategies, the use of visual elements, and the choice of social media platforms for climate activism:

Effective Messaging Strategies

The findings indicate that employing a call-to-action tone in social media posts is the most effective approach for inducing audience involvement in climate activism. Posts with a call-to-action tone tend to elicit more dialogue through comments and sharing among the community, thus fostering greater engagement. Additionally, assertive and informative tones are also found to generate significant engagement, resulting in a wider reach of the activism message.

Use of Visual Elements

The study reveals that utilizing photos as visual elements is the most effective strategy for climate activism on social media platforms. In contrast, video posts exceeding one minute in duration are found to be less effective in engaging audiences. Posts with no media at all perform better in terms of engagement than video posts. Furthermore, attaching links to publications within posts as a means of encapsulating all relevant information is found to be an ineffective strategy for enhancing engagement.

Platform Effectiveness

X emerges as the most effective platform for climate advocacy among the activists studied. While Facebook is the least employed platform, Instagram and X are utilized most extensively. X's platform features, such as the ability to maintain consistency in posting frequency and visibility of all activities on the timeline, provide an effective avenue for activists like Haven Coleman and Greta Thunberg to amplify their messages. The visibility of replied and reposted content on X strengthens the messaging reaching their audience.

Challenges in Climate Activism through Social Media

Despite the effectiveness of social media platforms in amplifying climate activism, several challenges persist. One significant challenge identified is the difficulty in encapsulating detailed information within the constraints of new media formats, which often require messages to be concise and attention-grabbing. Retaining the essence of complex climate issues while ensuring clarity and building conviction among audiences is a daunting task. Activists face the challenge of conveying the actual happenings and forecasting the future implications of the climate crisis in a succinct yet impactful manner. Additionally, there is uncertainty surrounding the extent of real-world action resulting from social media activism. While activists may succeed in raising awareness and prompting individuals to take action through calls to action, it remains uncertain how many people truly comprehend the gravity of the situation and are motivated to translate online engagement into tangible efforts in the physical world. This discrepancy between online engagement and real-world action poses a significant challenge in effectively addressing the climate crisis through social media activism.

VII. Conclusion

In conclusion, this paper has delved into the realm of climate activism through social media, aiming to analyse the strategies employed, challenges faced, and opportunities present in leveraging digital platforms for environmental advocacy. Through a comprehensive examination of messaging strategies, it became evident that a call-to-action tone resonates most effectively with audiences, fostering engagement and encouraging active participation. Additionally, the use of visual elements, particularly photos, emerged as a powerful tool for conveying messages, while the effectiveness of lengthy videos and attached publications remains questionable. Moreover, the dominance of X as the primary platform for climate advocacy highlights its potential for real-time engagement and amplification of messages, despite the challenges posed by information retention and uncertainty regarding real-world impact.

Moving forward, it is essential for climate activists to continue innovating and refining their digital communication strategies to effectively navigate the dynamic landscape of social media activism. This includes finding ways to distil complex information into digestible formats, fostering genuine connections with audiences beyond the screen, and collaborating with diverse stakeholders to drive tangible action on climate issues. By addressing these challenges and capitalizing on the opportunities presented by social media platforms, activists can amplify their voices, mobilize communities, and catalyse meaningful change in the fight against climate change.

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