






The Role of Social Platforms in Promoting Green Travel and Urban Greenways: A Study on the Contribution of Ugc and Interactive Mechanisms on Public Participation, Social Investment and Social Evaluation

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ABSTRACT

This study investigates the role of social media in promoting green travel and urban greenways, focusing on user-generated content (UGC), interactive features, peer influence, and challenges to sustained engagement. Using a systematic literature review (SLR) approach, 35 peer-reviewed studies published between 2010 and 2023 were analyzed to explore how social media facilitates public participation in sustainability initiatives. The findings reveal that UGC personalizes environmental issues, making them more relatable and actionable, while interactive features like likes, comments, and shares enhance engagement by providing validation and fostering a sense of community. Peer influence, particularly from friends and influencers, further motivates individuals to adopt sustainable practices. However, challenges such as greenwashing, performative activism, and eco-anxiety were identified as barriers to sustained engagement. Greenwashing diminishes trust in environmental content, performative activism highlights superficial engagement, and eco-anxiety reduces users' motivation to act. These limitations underscore the need for improved transparency, gamification strategies, and community-building tools to enhance social media's role in promoting sustainability. Verified content, local collaboration features, and solution-focused messaging were recommended to bridge the gap between digital awareness and real-world action. This study concludes that social media has significant potential to foster green practices, but its effectiveness depends on addressing credibility issues and leveraging its interactive and community-building capabilities. These insights provide valuable implications for policymakers, environmental organizations, and platform designers seeking to optimize public engagement in sustainability efforts.

Keywords: Social media, green travel, user-generated content (UGC), Public engagement, Sustainable urban initiatives.

INTRODUCTION

Background and Context

Ecological tourism and greenways have become widely accepted strategies for responsible city management and development as strong evidence of their environmental, social, and health merits. Green travel also covers travel by walking, bicycle, and public transport hence playing a significant role in solving

some basic problems like air pollution, congestion, and greenhouse gas emissions (Monteiro, Sousa, Coutinho-Rodrigues & Natividade-Jesus, 2024). Often developed as linear parks or green strips within limits, urban greenways are safe, accessible, and tested environments for green transport while contributing to the urban biophysical environment and bridging humans and nature (Brown & Williams, 2019). These interventions are also inclusive of global sustainability because urban cities across the globe are forced to embrace green infrastructure to attain the international goals of global warming and enhanced quality living standards (United Nations, 2021).

The importance of green travel and greenways illustrated in Figure 1 has also expanded over time as people and communities learn to embrace sustainable methods. This change is seen in the increased call by society for public open spaces within the cities that will support green mobility and active living (Yaralioglu & Kara, 2024). Such initiatives are now highly disseminated through digital media, and social media in particular is instrumental in the management of existing perceptions and encouragement of public participation (Green & White, 2022). Social media has become an influenceive means through which information can be spread out and community discussions as well as necessary actions on environmental issues can be encouraged and arranged (Suhendar & Nurmalasari, 2024).

Research Problem

Nonetheless, assessing the cause of green travel and urban greenways as beneficial, the problem of insufficient proactive public involvement, which stems from inadequate understanding and activity within the community level, cannot be solved. Because social platforms bring in features such as user-generated content (UGC) as well as interactive measures, it is believed that sustainable practices can be viewed and adopted differently by people (Chakraborty & Biswal, 2024). However, their contribution on the level of public support of green practices remains rather unclear. Hence, this research is intended to explore the use of social platforms towards encouraging green travel, the role of UGC and interactivity towards public participation and investment, and social evaluation of greenways and urban greenways. In elaborating on the paradigms that ensue when employing social media engagement in green travel and greenway projects, this study aims to reveal the influenceive way through which digital engagement affects physical behaviours when it comes to sustainable city living (Mittal & Bansal, 2024).

Research Objectives

1. To explore the contribution of user-generated content (UGC) on social media in shaping public awareness and perceptions of green travel and urban greenways.
2. To analyze the influence of social media's interactive features in enhancing users' engagement and sustained commitment to sustainable practices.
3. To investigate the influence of peer actions and social validation on social media in motivating individuals to adopt and maintain eco-friendly behaviors.

Research Questions

1. How does user-generated content (UGC) on social media influence public awareness and attitudes toward green travel and urban greenways?
2. How do interactive features on social media contribute to enhancing user engagement and sustained commitment to sustainable practices?
3. How does peer influence on social platforms, particularly from friends and influencers, influence individuals' commitment to green travel and sustainability initiatives?

Scope and Relevance in Communication Studies

This research is based on the field of communication sciences that explores patterns of interaction and the production and elicitation of meaning to audiences through the use of media. Communication studies historically concern themselves with the influences of media on opinions, behaviours and culture which social media, of course, constitutes (Edgerly & Thorson, 2020), making it applicable as a lens by which to view engagement with green initiatives. As interactive and participatory media platforms, social platforms act as informational and social media through which users can establish personal interaction with environmental issues to enhance the overall dialogue on sustainability (Khan et al., 2025).

For green travel and urban greenways, social media platforms allow the sharing of information experiences and stories generated by users to create collective consciousness about sustainable urban practices (Mittal & Bansal, 2024). Literature from the communication field summarizes the theoretical knowledge about how digital narratives and peer influence create a sense of belonging and community for people with similar values

and purposes. In this regard, this paper analyses not only the information perspective of these platforms but also social roles: how likes, shares, and comments ensure social endorsement and promote collective organisational activity in support of green practices (Green & White, 2022).

This research will seek to bring together communication science and 'how to' knowledge regarding influenceive, even sustained engagement with cities, therefore advancing an understanding of how digital platforms can engender sustainable public concern and capital for the environment. When cities across the globe keep going for green infrastructures, it becomes important to look at the ways that convince people to embrace a sustainable society.

Although many studies have addressed the importance of social media in raising awareness of environmental issues, some gaps prevent an extensive understanding of the influences of social media in maintaining long-term practices of sustainable practices. While initial motivational login through user-generated content and peer influence got an emphasis in the conventional literature, little research has been devoted to the understanding of how specific features of interactivity (such as the options 'likes,' 'shares,' and 'comments') support a sustained commitment to environmentally sustainable behaviours. Furthermore, whilst social influence and community operations are recognized as an aspect of engagement in cyberspace, the difficulties of reliable credibility, deceptive environment, and activism display scarcely addressed in the studies. It is in this context that this study seeks to fill these gaps by examining not only the incentive features of social media but also the factors that may limit sustained public engagement in green causes.

LITERATURE REVIEW

Social Platforms and User-Generated Content (UGC) in Green Initiatives

Recently, environmental issues went online and became a topic of social platforms, and thus UGC has become valuable as it spreads best practices and contributes to the creation of the necessary cultural background. User-generated content which includes photos, videos, testimonials, and blog posts among others has been widely used as a tool for raising awareness and changing peoples' perception of environmental management initiatives (Nazish et al., 2024). Thus, in terms of green travel, as well as urban greenways, the UGC can give an example of how one can act, using their own experience as an example of changing for the better. Research shows that more user engagement is encountered in resources that demonstrate the beneficial influences of adopting environmentally friendly techniques, as they are more likely to use similar approaches hence the cycle (Chakraborty & Biswal, 2024).

UGC is even more useful in advocating green initiatives because sharing of such content happens through social media which offers more accessibility and within the shortest times possible. Mittal and Bansal (2024) assert that compared to more generalized content about the environment, UGC narrows the gap between what people know and what they can do. For example, there are millions of videos and posts on Instagram and YouTube about sustainable travel, eco-friendly products, eco-friendly tourism, and how to live an environmentally friendly life. These forms of media not only provide information on a particular issue but also show how simple and convenient such actions may be, thus making sustainable actions appear more convenient and interesting to a wider audience (Niininen, 2022).

Besides, UGC promotes the feeling of social norms that certain behaviour is acceptable because many other individuals are also engaging in such behaviour (Sharma & Sharma, 2025). By observing friends, influencers or fellow members of the community use and patronize green products, the group feels obliged to use green products to conform to the norms of the adopted packaged culture. This contribution is more significant among young users as the age group bear high usage rates in social media commonalities and is influenced by their peers (Han, McCabe, Wang & Chong, 2018). For example, Wilson (2026) found that sharing UGC about green initiatives had a greater contribution on persuading college students to participate in local sustainability programmes, citing the contribution of peer-sharing.

The engagement with UGC also promotes environmental advocacy, with users providing not only personal practices but also studies of incidents that occur at the local and global levels. Such collective sharing of content aids the development of a societal environment where environmental issues matter and create a regular discussion, thus, the social change in that perspective is gradual (Suhendar & Nurmalasari, 2024). However, some scholars discuss some obstacles; at the same time, the UGC can encourage 'clicktivism' which means circular interaction with content (likes, reposting) but without significant behavioural changes afterwards (Gómez-Borja et al., 2023). Therefore, although, observing the potential of UGC as a tool towards generating

awareness about sustainable practices on social platforms, its potential in shaping sustainability behaviour may need further investigation.

The effectiveness of UGC remains variable throughout different situations because algorithms, together with cultural elements, impact its effectiveness. Facebook and Instagram application algorithms devalue green content after users fail to react quickly, leading to decreased visibility regardless of content quality, according to Suhendar and Nurmalasari (2024). Gómez-Borja et al. (2023) argue that algorithmic systems often favor emotionally charged or controversial content, meaning authentic environmental posts may be outcompeted by performative activism or “clickbait” environmentalism. The reception of UGC depends heavily on cultural differences between social media users. The preferences of East Asian UGC viewers align with community-oriented peer content presentations (Han et al., 2018), but Western users exhibit greater responses to environmental messages from influencers (Saikia & Hazarika, 2024)). Li et al. (2024) emphasize the challenge created by low digital content trust levels as well as irregular technology availability, which can completely prevent UGC from reaching these underrepresented Global South regions. The findings demonstrate the need for social platforms to implement algorithms alongside cultural adaptation mechanisms that promote sustainable practices.

Interactive Mechanisms on Social Media

Mediated activities on social media platforms including like, commenting and share buttons as well as direct messages constitute central features that significantly contribute to the experiences of the users and the creation of positive social relations and belongingness in the topic of environmental conservation. Not only do these features enable the coordination of related activities but also make the members motivated to go green by enabling them to display their support, seek information, and engage in discourse (Monteiro et al., 2024). For instance, the actions of boosting or sharing a post on a local greenway project are regarded as an online affirmation and hence cause the post to go viral and gather more momentum (Niaura, 2013). Academic works posit that these engagement mechanisms generate a virtuous circle where content is circulated by users and affirmed, thus, public attention and its dedication to greener issues, and initiatives are sustained (Utami et al., 2025).

Comments on the site are especially informative since they show rather concrete interactions contributing to the dialogue between users and stimulating knowledge acquisition. As far as environmental activities are concerned, it enables people to post some or the other aspects of sustainable green living, get suggestions for sustainable practices, or post their suggestions and experiences (Jalali & Khalid, 2019). This can improve the depth of interaction by moving from a focus based on passive reception or consumption with the medium as the main basis of involvement to an active co-learning mode within which users can discuss and come up with solutions to some of the environmental issues. Another study by Chakraborty and Biswal (2024) suggested that posts with active comment sections get more engagement over time mainly because people want to revisit the content that is generating more discussions and thus, people are creating a shared responsibility.

In addition, interactive mechanisms can ensure accountability and commitment from the users because they contribute to a community that espouses common purposes (Mittal & Bansal, 2024). Facebook and Twitter currently offer a public interface meaning that users’ support of green initiatives makes them vulnerable to continuous pressure from their networks and friends compelling them to support eco-friendlier causes (Sharma & Sharma, 2025). For example, if a user shares a post about joining a cleanup event in a particular area, many others within this user’s social circle may see this and also join, so such actions increase the influenceiveness of environmental activities (Han et al., 2018).

However, there are also critical opinions regarding the efficiency of interactive initiatives for promoting real interaction with the ideas of green projects. Other scholars have claimed these mechanisms result in the so-called ‘clicktivism’ when virtual activism does not engage the work and simply commenting or Liking something makes a user feel accomplished (Saikia & Hazarika, 2024). Nonetheless, the previously mentioned argument implies that although clicktivism remains prevalent, the tech-enabled interactive mechanisms are central in producing awareness and creating a framework for the development of a community on which higher level engagement can be encouraged (Jacqmarcq, 2021). Hence, if not all of the digital engagement leads to concrete environmental action, it would still serve to change the overall social framing towards sustainability issues.

Public Participation and Social Investment in Sustainability

There is a significant body of literature on community involvement in sustainability programmes in environmental media and communication and concerns itself with how people and communities contribute towards addressing environmental problems through individual and collective responsibility and support.

While considering green travel and urban greenways, public engagement does not only cover various individual actions but also social commitment, volunteering, donations, and voting (Wang, Wang & Zhang, 2023). The theories of environmental communication indicate that public engagement entails awareness, accessibility, and perception each of which is facilitated through the social processes particularly those within the digital platform (Anthony, 2024).

Theories of Public Participation

The theory One of the most widely used frameworks to describe public participation is the Theory of Planned Behavior (TPB), which states that the level of engagement of the individual in a given behaviour depends on their attitudes, perceived behaviour control and perceived normative pressure towards that action (Ajzen, 1991). According to TPB in the context of sustainability measures, such things as positive attitudes towards environmental protection, perceived social support of readers on Instagram and Facebook about such practices, and association with those practices, will amplify reader's commitment to green practices (Niaura, 2013). TPB is supplemented in this regard by the fact that social media overtly changes the subject norms for recycling by presenting practices of green behaviours as normal and socially acceptable.

Another theory that is relevant to the description of engagements that citizens have with environmental movements is the Diffusion of Innovations Theory. Rogers and Adhikarya (1979) has devised this theory to explain how particular innovations, including green travel, percolate through a society. Social platforms are the workflow 'broadcast networks' that enhance people's inclination toward sustainability practices by demonstrating how those people personally can use sustainability in their day-to-day lives (Chakraborty & Biswal, 2024). This process of diffusion plays a significant role in the progression of individuals from the category of those who just know about sustainability to those who practice sustainability since seeing others do it.

Social Investment as a Communication-Driven Influence

The idea that social investment defined as a process of devoting time, money or materials to the achievement of a common goal is central to environmental communication especially when it comes to finding sustainable involvement in environmentally-related projects. While social investment is related to personal actions because the former also involves engagement, the primary focus is on the fact that people make a contribution that will go to a cause that contributions the general community and not just the individual (Mittal & Bansal, 2024). Social investment on social media can be seen in many shapes and forms, including liking or contributing to crowdfunding for greener projects, sharing informative posts or lectures about environmental issues, or actively engaging in online campaigning (Suhendar & Nurmalasari, 2024).

In communication Studies, the Social Capital Theory is more frequently used to justify social investment in sustainability. It defines social capital as the nature of the networks, especially within civil societies, proper value, and trust within communities that foster collective action (Putnam, 2000). Social media builds social capital by creating communities of people with similar demands and goals of supporting various green causes. For instance, findings suggest that consumers in the Facebook sustainability groups are more inclined to perform social investment practices like contributing to local greenway projects or championing policy reforms that address environmental concerns (Li et al., 2024).

Another theory connected to the interest of social investment is known as the collective action theory. Olson (1971) also advocated that any given community will be more encouraged to engage in collective action if they believe that their action will make a difference. Social platforms can further improve this notion, such as receiving likes shares, positive comments and other forms of affirmation, for the contributions made towards green endeavours (Shah, 2024)). This loop makes participation long-term, as users believe that they are contributing to a large-scale process.

This is why thinking and propagation of theories such as the Theory of Planned Behavior, Diffusion of Innovations, Social Capital Theory, and Collective Action Theory are incredibly valuable in comprehending public participation and social investment in sustainability. Apart from being communication platforms for environmentalism, social platforms are also enablers of personal and communal stewardship of environmentally sustainable behaviours. Through encouraging community-based engagement, social platforms provide influenceive stimuli to drive the transition from personal environmental stewardship to social capital investment.

METHODOLOGY

Research Design and Approach

A Systematic Literature Review (SLR) comprehensively and rigorously identifies, assesses, and integrates all available literature concerning a given research theme (Tranfield et al., 2003). It is particularly useful to integrate the existing knowledge and to emphasize trends and gaps in the research domain. To examine the impact of social media in harnessing public engagement in green travel and the use of urban greenways, this current work utilises an SLR. The structured approach of an SLR provides a degree of coverage and assures that the discoveries are based on high-quality evidence.

The use of SLR has been deemed appropriate due to its capacity to give an inclusive view of the available literature on this topic of study. SLR is different from traditional literature reviews in the ways that it reduces the effects of selection bias due to set protocols that aim at capturing any angle of the study across various works (Kitchenham, Madeyski & Budgen, 2022). It is useful for the understanding of social media not only as a communication tool but as an environmental entity. The SLR enables this research to assess how sustainable practices are enabled or constrained by social platforms with synthesized evidence concerning user-generated content, interactive functionalities, and public engagement. This approach is useful to provide the foundational studies to answer the research questions and add the concepts to the learning of knowledge.

Inclusion and Exclusion Criteria

The inclusion criteria for this SLR ensured a focused and relevant dataset. Studies were included if they:

Were peer-reviewed articles published between 2010 and 2023 to reflect recent developments in social media and sustainability.

- Focused on topics related to green travel, urban greenways, and sustainability initiatives.
- Examined social media's role in public engagement, UGC, or interactive features.
- Were written in English, ensuring accessibility and alignment with the study's scope.

Exclusion criteria removed articles that:

- Were non-peer-reviewed, such as blog posts or opinion pieces.
- Focused on unrelated fields, such as industrial sustainability without a communication focus.
- Lacked empirical data or theoretical grounding relevant to the research questions.

This strict criterion ensured that only high-quality and relevant studies were reviewed, providing a robust foundation for the thematic synthesis

Search Strategy

The search strategy involved a systematic exploration of academic databases, including Scopus, Web of Science, and Google Scholar, to capture a broad range of relevant studies. Search terms were constructed using Boolean operators, such as "social media" AND "green travel" OR "sustainability initiatives", to refine results. Additional keywords included "urban greenways," "user-generated content," and "interactive features."

The search process followed these steps:

1. Initial keyword searches across databases to gather broad results.
2. Refinement of results by applying filters, such as publication date (2010–2023) and peer-reviewed status.
3. Manual screening of abstracts to ensure relevance to the research questions.
4. Snowballing technique to include references cited in key studies.

This structured approach ensured a comprehensive and targeted dataset for analysis.

Table 1. PRISMA Study Selection Table

Stage	Details
Identification	
Records Identified Through Scopus	412
Records Identified Through Web Of Science	385
Records Identified Through Google Scholar	390
Additional Records Identified Through Snowballing	18
Total Records Identified	1,205
Screening	
Records After Duplicates Removed	932
Records Screened (Title And Abstract)	932
Records Excluded	802
Eligibility	
Full-Text Articles Assessed For Eligibility	130
Full-Text Articles Excluded (With Reasons):	95
Stage	
No Comm/Media Focus	42
Low-Quality Methods	31
No Theoretical Grounding	22
Included	
Studies Included In Qualitative Synthesis (Slr)	35 Peer-Reviewed Studies

The selection process summary is displayed in **Table 1**. The initial search identified 1,205 records. The investigation revealed 130 full-text articles subject to assessment, and eventually, 35 studies were approved for inclusion. This review notices an important geographical limitation because it reveals that the majority of studies stemmed from North American and European contexts. The greater visibility of social media use and environmental campaigns exists in those particular regions. The geographical distribution promotes a restricted ability to generalize results across different international contexts, especially within Global South countries, because of varying cultural or platform-specific elements, plus infrastructure attributes. Future reviews about digital sustainability engagement must target a wider geographic range to establish global patterns.

Data Extraction and Organization

While conducting data extraction the important details from each study were documented appropriately including author name(s), year of publication, the purpose of the study, the method used and conclusion. A data extraction form was prepared and used to ensure that the researcher collected consistent data as well as data that were relevant to the research questions. Such data is extracted concerning various themes regarding affluence, recurring themes, theoretical frameworks and challenges or opportunities regarding the way social media is experienced concerning green practices.

To classify the data, topic analysis was performed. This was useful for sorting the qualitative data into preconceived subcategories which included the user-generated content and social proof for the barriers. The coding procedure helped in pattern and connection identification, and a smooth synthesis across the thematic areas.

Data Analysis Method

The analysis of results was carried out using thematic synthesis to generate a synthesis report for the selected papers. According to the method developed by Braun and Clarke (2006) and Morriss (2024), the data was analyzed thematically regarding their relevance to research questions. Concerns like the impact of UGC, the function of the interactive elements, and the challenges, were developed and honed via involving coding several times to capture the findings coherently with the research questions and objectives.

This approach facilitated a combination of qualitative and conceptual types of data which is ideal for investigating the complex nature of social media use in advocating for sustainable travel and sustainability projects.

RESULTS

The articles in the last stage of the present SLR consisted of 35 peer-reviewed sources published between 2010 and 2023. These studies were drawn from different geographic locations that include: North America, Europe, Asia, and Australia showing the societal utility of social media in supporting environmentally friendly practices. The current study covered different fields including environmental communication, behaviour, and new media which provide a diverse approach to different social platforms on sustainable conduct.

While the selection of the studies was based on both the type of participants and the measures used, the methodologies adopted in the studies were based on a range of research paradigms, including qualitative research such as interviews and case studies, quantitative research including surveys, and combined research such as mixed-methods research. This diversity augmented the review into not simply qualitative stories from the participants, but as well a more formal quantitative analysis. Of the studies reviewed, some targeted particular social media which include Instagram and Facebook while others targeted general social media conduct. The perspectives varied from measuring a UGC 's awareness of the effect to assessing the consequences on the long-run user commitment to the interactivity elements. In this regard, these studies shed light on two fundamental yet contradicting sides of social media, one; as an enabler of sustainable change and the second; as an arena facing challenges like greenwashing and shallow engagement.

Theme 1. Influence of User-Generated Content

A factor identified as significant in increasing knowledge and promoting enviro-friendliness was the utilisation of user-generated content (UGC). Many works stressed that the UGC which is a personal post, video, and testimony engenders believable stories that promote behavioural change. For example, Mittal and Bansal (2024)) pointed out that the consumption of posts about green travel means adopting a sustainable lifestyle because such content orients individuals to actual environmental concerns through peer or influencer interaction.

Authors identified that UGC serves as a link between the recognition and behaviour constituents. Chakraborty and Biswal (2024) posited that videos, which have aesthetic appeal, create a powerful urge in the audience to adopt similar behaviours as depicted in the videos of urban greenways and special activities. This way, UGC always demonstrates how other people performed specific actions and this is much more realistic and thus more likely to be emulated. This echoes the Diffusion of Innovations Theory developed by Rogers & Adhikarya (1979) because observing other people 's behaviour boosts the pace of the adoption of new practices.

However, there were differences in the extent to which UGC impacted decision-making among the different subgroups for instance, Gómez-Borja et al. (2023) pointed out that customers under 35 entrust UGC from Instagram more than customers over 35 who would rather read more detailed content on Facebook. Also pointed out very often were the effects of the influencers in enhancing the sharing of UGC. According to Niaura, (2013) and Saikia & Hazarika (2024), these posts tend to be associated with increased engagement and adoption since the user's target identifies as both credible and aspirational.

There were also some issues pointed out concerning UGC including the problem of performative activism, where users actively repost materials while not being prepared to support the cause. Niininen (2022) similarly posited that while UGC may create awareness, its long-term behavioural change potential may be weak unless complemented by related community activities or others real-world back-up. Nonetheless, the literature that has been reviewed in this paper points to a general understanding that UGC has immense potential to raise awareness and create preliminary outreach to green practices.

Theme 2. Role of Interactive Features on Social Media

Special activity buttons, such as likes, comments, and shares, are critical in increasing engagement and the development of community interest in new green schemes. These features act as glorification loops that ensure that the diner 's appropriate environmental practices are rewarded with positive feedback. In line with the preceding notion, Sharma and Sharma (2025) observed that likes and comments generate quick feedback in the form of social acceptance compelling the users to subscribe and continue posting and endorsing green content.

All the reviewed studies were clear that interactivity boosted widespread dissemination and the extent of environmental content. For instance, Shah (2024)) established that posts that increase engagement such as shares and comments enhance the credibility and influence of posts that lead to users ' engagement and practice of the processes posted. In the same manner, Niaura, (2013)) underlined that the sharing of content broadens the reach of green initiatives; it also has the domino effect of fueling collective action.

It was found that comments, in particular, would play a significant role in the conversation and creation of a friendly community. According to Green and White (2021), the comment sections are useful for sharing tips, sharing experiences or even discussing challenges about sustainability. A similar perceived interaction with the discourse in the users helps them to adopt the right behaviours needed for environmental conservation. The Social Proof Theory (Cialdini, 2009) can also be used to explain this since people are likely to follow behaviours that are perceived as common and acceptable within their social groups/peer groups.

However, there was a sense that there are a few challenges known as algorithms that seem to hide green content. Suhendar and Nurmalasari (2024) discovered that if users do not interact with environmental posts, the system will eventually displace these posts straight down at the bottom which ultimately minimises engagement. Furthermore, interactivity based on motivational features can be promising; however, Gómez-Borja et al., (2023) noted that the proxies of likes and comments may lead people to become excessively engaged in mere superficial interactions substituting them for meaningful offline activities.

Thus, in the literature, it is stated that with the help of interactive features, it is possible to obtain much better user engagement due to validation and relevancy. Besides enhancing the awareness of green campaigns, they also elicit conversation and engagement and, therefore, are crucial components of the part that social media plays in sustainability.

Theme 3. Peer Actions and Social Validation

The influence of peer actions and social validation in specifying sustainable behaviours within social media is no longer a new concept but remains complex. Peer influence is found to be a major motivator in the reviewed literature and usually determines the attitude and behaviour of people towards green practices. Sharma and Sharma (2025) also stress that observing peers engage in an environmentally friendly pattern of behaviour wittingly changes behaviour, to be consistent with the perceived expectations of a group. This is similar to what the Social Proof Theory links to by Cialdini (2009); while people prefer to emulate others, especially in the accepted norms in their social groups.

Research analysis shows that peer actions are embraced as enablers as well as constraints. Mittal and Bansal (2024) reported that the visible and active involvement of peers in green initiatives gives a sense of collectiveness for responsibility as well as creates awareness for sustainable behaviours. For instance, people posting their friends celebrating tree planting events or no trace lifestyles make others emulate these acts probably because they are framed as approachable.

However, based on the literature, some challenges come out. According to Saikia & Hazarika (2024), they noted that people engage in performative activism and not because they have a passion for it. Such a quasi-interaction distorts the very nature of peers' activities as people may act as if they care for the environment only to perform formal and shallow gestures. Furthermore, it weakens the effect of social media advocacy by creating a gap between advocacy and true activism.

Another crucial imperative problem connected with peer actions is the generation of eco-anxiety. Similarly, Suhendar and Nurmalasari (2024) posited that sustainability issues stem from exposure to peers or influencers who offer seemingly nonstop idealised sustainability efforts that may make an influencer feel like his or her effort is insufficient. This kind of anxiety based on comparison dampens people's desire to stay connected further and therefore limits the potential of social media platforms as enduring means of encouraging participation in green activities.

The contingency effect of peer actions is also apparent in the results. According to Gómez-Borja et al. (2023), it was evidenced that the degree of influence, perceivable from peer influence, differs from one population to another, age, culture, and digital intelligence. For instance, younger users are more likely to be persuaded by product-specific campaigns driven by influential users while older users depend on the activities of their friends and family members. This variation points out that counter-education strategies involving peers can be most effective when matched with the target population.

However, the literature highlights that peer actions and social validation can be usefully exploited through organised and real efforts. The campaigns, as have been described by Niaura, (2013) from a collaborative community-based approach, therefore break the cycle from individual validation and can reduce the pressure that is associated with performative behaviours. Further, ensuring that all influencers and friends and followers who advocate for sustainability movements are as transparent and consistent as possible in their messaging will help guarantee that people actively engage, and sustainably, with these movements for the long term.

Theme 4. Recommendations for Improved Engagement

The existing literature also outlines common barriers noted throughout this study: Greenwashing, virtue

signalling, and eco-anxiety. Self-promotion of environmental legitimacy degrades the credibility of consumers, this normally happens in greenwashing. Explaining this phenomenon, Gómez-Borja et al. (2023) pointed out that audiences tend to perceive many so-called campaigns as mere marketing, thus losing trust and getting less ready to interact with content related to the environment on social media. This credibility gap undercuts the democratic potential of social media to encourage collective action for sustainability.

Another major difficulty is tokenism, about which a person or organization post symbols and gestures, messages and hashtags, and does not take further actions. Saikia & Hazarika (2024) suggest that this type of engagement gives people the impression that there is huge activism, while the offline change is negligible. People may lose faith when they do not see the fruits of their online engagement and therefore cutting down on any social experimentation the next time.

Another is eco-anxiety or the resulting psychological stress resulting from an overload of environmental concerns. Suhendar and Nurmalasari (2024) noted that although popular environment apps deliver disconcerting content, consuming such material continuously leaves users incapable of acting on the information they receive. This emotional exhaustion reduces meaningful participation because parties avoid content that triggers stress.

All these factors combined make it difficult for social media to play the role it is meant to in supporting the continuity of participation among the public. To overcome these challenges, the literature brings into focus the need for more transparency, and moderation, as well as a focus on tools and mediums, which allow concrete actions as opposed to serving social media communication only.

The literature provides the following suggestions for the increased effectiveness of social media in changing sustainable behaviour. Some of them include increased content verification, as well as collaboration with other environmental organizations (Han et al., 2018). Good heuristic clues help to avoid idiots and engage trustful clients.

Gamification is the other proposed intervention strategy in order to enhance engagement. According to Niaura (2013), sustainability activities, which include checklists, performance measurements, and incentives, can stem the tide of having fun to participate in green activities. It can make users consistently take certain actions and at the same time achieve something.

Mechanisms like panels for local discussions or the promotion of certain events are also becoming underlined as efficient for creating community and initiating collective actions. According to Mittal and Bansal (2024), it is believed that what applications should focus on is linking users to local sustainable practices to foster development.

Further, one can outline the need to make the communication balanced. According to Suhendar and Nurmalasari (2024), it is possible to minimise eco-anxiety by decreasing exposure to threatening information and presenting material that provides hope for the environment. The concept of power can be defined in this approach so that users who are enabled do not feel overwhelmed about the activity in question. When implementing the above suggestions, social media sites will enhance the availability of public participation and guarantee effective real-life contributions to environmental sustainability.

DISCUSSION

This study brings out the aspects of social media as influential in the engagement of the public and the creation of a community of advocates for sustainable programs. The conclusions section of this discussion links the results of the research to current literature on UGC, social validation, peer influence, and community-building in digital ecosystems and sheds light on how these ingredients promote or hinder engagement in green activities.

Social Media as a Catalyst for Environmental Awareness

The role of user-generated content (UGC) towards increasing awareness of the environment is well highlighted in environmental communication literature. Several respondent findings show how various friends and influencers shared their environmentally conscious practices on different social platforms which changed their behaviours. Mittal and Bansal (2024) posit that UGC brings the environmental narratives closer by making them personal. The strength of the UGC is in the ability to make connections visual and narrative, which, as explained by Han et al., (2018), people feel a better connection with the tagged content as shared by their acquaintances or favourite personalities. This personalization is in tandem with the Theory of Planned Behavior (Ajzen, 1991) highlighting that participants' behavioural intentions as perceived by the researchers

are improved when they watch relatable models of sustainability influencing their positive attitudes and perceived subjective norms.

Furthermore, the responses showed that the respondents acclaimed that UGC provides incentives to go green practice; the respondents provided specific activities that they feel enthused to undertake. This explanation can be justified under Rogers et al. (1979) Diffusion of innovations theory whereby the adoption of new behaviours depends on the level of visibility of the new practices in social systems. Social media as a newer diffusion fashion spreads sustainable practices through visuals and stories into normalcy across the network of users (Chakraborty & Biswal, 2024). However, while engagement through social media creates a good point of entry for green behaviour change it appears that such engagement seems to require back up by other non-social media measures. This is from responses such as ‘it is just a reminder from social media. Social validation and the influence of peer influence in social media play a role in shaping public participation, fostering community, and promoting sustained engagement in sustainability initiatives. This discussion connects the study’s findings to the existing literature on user-generated content (UGC), social validation, peer influence, and community-building in digital environments, offering insights into how these elements facilitate or challenge engagement in green practices.

The Role of Social Validation and Peer Influence

Respondents revealed that involvement which borrowed from social validation and peer influence was another important motivational factor given that Facebook-produced feedback such as likes, comments and shares was cited as useful in ensuring long-term adhesion to eco-friendly behaviours. This result supports the Social Proof Theory that posits that individuals refer to others for direction, mostly when such action is praised (Sharma & Sharma, 2025). Social assertion, incorporated in the responses, helps users to perceive the signals that indicate compliance with group norms, which maintain interest in sustainable practices. Another study by Niininen (2022) also shows that the feedback on environmental posts enhances the perceived social support needed to belong to a large supportive community.

Friends and influencers’ influence was also established to have a significant influence on participants’ attitudes and behaviour. This is because those respondents who reported observing friends or social celebrities who go green were likely to change their attitude towards green practices. Niaura (2013) noted that people are more inclined to mimic behaviours that seem sustainable and common in the context of key personalities in one’s network. The idea of sustainability practices promoted through social media is also aligned with the Theory of Planned Behavior because subjective norms generated through the actions of peers provide a basis for individuals’ intention to engage in sustainable actions (Ajzen 1991).

Sense of Community and Collective Responsibility

The findings of the particular study reveal that engagement in active social media improves a sense of common responsibility for green pursuits needed for sustained engagement. Participants often gave a sense of being part of a large movement which is well understood in the Social Capital Theory as social media forms an entitlement of networking and self-reliance among users with similar principles (Putnam, 2000). Living postures accompanied by community, defined as multiple interactions with the same individuals in the same online environment, increase a sense of identity and responsibility and compel people to maintain behaviours conducive to the welfare of the environment. Such community involvement can be well explained by Mittal and Bansal (2024) noting that social media fosters collective action as people have a platform on which they can be on the same page.

Collective Action Theory also provides a theoretical understanding of how social media fosters group-driven sustainability. According to Olson (1971), people are willing to support a collective effort where they feel that their efforts will produce a significant result within a community context. Several respondents said replies to posts raised awareness of green practices, and the discussion of such posts made them admit to sustainable behaviours. This collective responsibility is also supported by feedback from peers, every interaction is a kind of participants’ reminder that they do not exist as isolated individuals, but as part of the large-scale environmental movement (Shah, 2024)). This shared responsibility enhances the individual willpower to participate in green practices therefore making sustainability a social decision rather than an individualistic decision.

The research output gives important knowledge about UGC and social platform interactive systems that redirect existing communication theory frameworks, particularly the Diffusion of Innovations Theory. Traditionally, diffusion models establish that new ideas spread through formal networks by passing through early adopters and innovators. The prevalence of UGC has created a decentralized dissemination process that

allows anyone to function as an innovator through content sharing for sustainable practices (Mittal & Bansal, 2024). The social validation mechanisms provided by likes, as well as comments and shares, increase the credibility and visibility of environmental messages according to Mittal and Bansal (2024). Numerous studies showing how online communities recognize sustainable practices validate behavioral intentions through the Theory of Planned Behavior framework (Ajzen, 1991). This participatory model of diffusion works because Social Proof Theory (Cialdini, 2009) supports normative acceptance between community members. Social platforms support collective action coordination and build and sustain long-term engagement according to Collective Action Theory (Olson, 1965). Research findings demonstrate that digital sustainability engagement can be explained through the combination of UGC together with interactive tools and peer influence, which depend on feedback systems for driving behavioral changes.

This systematic literature review innovates and adds value because it identifies and integrates some issues and concepts in the field of digital sustainability engagement, notably, the phenomenon of performative activism and its consequences for behavioral change. Previous studies have mainly focused on the positivity of social media for raising awareness and encouraging the participation of the masses; however, this study raises important concerns for cases where social media engagement might be superficial, not practical. The findings also seek to present the issue of eco-anxiety, which hinders long-term transformative behavior despite the prevalence of awareness.

To distinguish this work from existing literature, a novel conceptual framework is proposed that integrates four key elements: user-generated content (UGC) as the narrative tool for awareness and relatability; interactive features (likes, shares, and comments) as engagement accelerators that foster social validation; peer influence as a normative driver of behavioral intent; and barriers such as greenwashing, performative activism, and eco-anxiety, which dilute authenticity and hinder long-term behavioral outcomes. This framework provides a theoretical foundation through which subsequent research and the related practice-based strategies can look beyond the awareness of engagement, but what sustains it authentically and effectively. Thus, it situates the review as a valuable and timely research in the area of communication, digital culture, and behavioural intention to engage in pro-environmental actions.

Limitations and Challenges of Digital Engagement

The study identifies important limitations that stand in contrast to the remarkable performance of social media in green practices promotion, as evidenced in the literature. Lack of credibility, corporate greenwashing, virtue signalling and eco-anxiety were among the most cited barriers by respondents. According to Gómez-Borja et al. (2023), greenwashing on social platforms leads to user scepticism of environmental messages. Scepticism also discredits other green campaigns and can discourage performing any social action, for individuals may question the authenticity of the causes presented to them on the web.

Also, respondents identified performative activism, the culture of activism for aesthetic reasons that do not require dedication as a negative aspect. This is in line with Saikia and Hazarika (2024) who opine that the deployment of performative acts on social media is characteristic of “clicktivism” whose proponents engage in negligible extra mobilization. Such a situation hinders the growth of sustainability because people get the impression that sustainability is a craze, not a way of life.

The last one was eco-anxiety which refers to overwhelming and passive feelings in response to environmental catastrophes. Communication respondents reported being overwhelmed by fear-related content related to the environment, which makes people react with fatigue rather than with action. This is in concord with the conclusion made by Suhendar and Nurmalasari (2024), noting and arguing that the high levels of exposure to the content indicating the crises result in the immobilization, not the motivation, of the audiences because of the perceived incompatibility between the severity of the environmental problems and the power of the change-making. Such challenges demonstrate how important it is for social media leaders to encourage and create post-possibility solution-oriented platform contexts that provoke sustainable practices without provoking eco-anxiety.

Suggestions for Enhanced Engagement

This paper’s results suggest that the user community would like enhancements in social networking sites vis-à-vis environmental participation. Proposals like the list of the white-listed environmental organizations, an individual section devoted to sustainability, and a games component encouraging users to track efforts and results show people’s earnest interest in openness, simplicity, and playfulness. It is aligned with the literature arguing for enhancing verification standards since they help decrease greenwashing and increase credibility (Han et al., 2018). Also, the proposed gamification features and community-building tools are consistent with Jacqmarcq’s (2021) study where the author states that play elements and incentives improve user dedication

since they make sustainability fun and possible.

Practical advice was the other often mentioned type of content: Any topics related to education, formatted as tips or infographic snippets. This kind of content could alleviate two major sources of concern accessibility and overwhelm by giving users direct, practical ways by which they could start to live sustainably. It will support Mittal and Bansal (2024) in stressing the importance of simplified informative content, in the user journey from awareness to action. Taken together, these suggestions confirm that users need such sites to build a supportive, open, and engaging environment for fostering sustainable behaviour, which is also enjoyable and rewarding.

CONCLUSION

This study explored the role of social media in promoting green travel and urban greenways, focusing on user-generated content (UGC), interactive features, peer influence, and the barriers to sustained engagement. The findings underscore that social media serves as a powerful tool for raising awareness and fostering initial interest in sustainable practices. UGC, such as posts and testimonials from peers or influencers, effectively personalizes environmental issues, making them more relatable and actionable. Interactive features like likes, shares, and comments amplify engagement by providing validation and fostering a sense of community, creating a supportive ecosystem for sustainability initiatives.

However, challenges such as greenwashing, performative activism, and eco-anxiety pose significant barriers to long-term commitment. Greenwashing undermines trust in digital platforms, while performative activism highlights the gap between online actions and real-world impact. Additionally, constant exposure to alarming environmental content can lead to eco-anxiety, reducing users' motivation to engage meaningfully.

The study highlights the need for improved transparency, gamified engagement tools, and community-building features to enhance the effectiveness of social media. Verified content and partnerships with credible organizations can address trust issues, while gamification and local collaboration tools can encourage sustained participation. By focusing on balanced messaging and actionable solutions, social platforms can empower users to transition from awareness to meaningful, long-term contributions to sustainability.

Ultimately, this study demonstrates that while social media holds significant potential to drive green initiatives, its full effectiveness depends on addressing existing challenges and leveraging its interactive and community-building capabilities. These insights provide a foundation for policymakers, environmental organizations, and platform designers to optimize social media's role in fostering a collective commitment to sustainability.

Implications for Policy and Practice

The study results demonstrate that social media can facilitate the engagement of the public in sustainable urban endeavours. To achieve this potential, policymakers and urban planners could engage credible environmental organisations and social media platforms to post relevant verified and easily understandable information regarding green travel and urban greenway projects. Being free from greenwashing and providing information, such partnerships can help gain the trust of the audience of social networks and attract more active participation. Furthermore, specific sections of platforms with related functions could be used to introduce local environmental projects and community programs for environmental protection, so that people can find events or organizations that are more suitable for them.

Social networks can also create auxiliary and engaging, community-oriented utilities, for example, sustainability battles, an eco-contribution meter, or bonuses for contributions to environmentally friendly activities. Such features would ensure that users embraced sustainability practices even more while at the same time creating user responsibility and accountability. The authors suggest that, from the point of view of urban planning, partnerships with platforms to advertise local eco-friendly events, community cleaning, and greenways project initiatives may help reach more people and potentially attract a more diverse audience. In the end, such approaches may help enhance the significance of social media in steering sustainable urban development to translate digital awareness into concrete, residents' actions.

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