

# A Critical Discourse Analysis of Emotional Language in AI-Generated Climate Communication

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## ABSTRACT

Artificial intelligence is increasingly used in public communication campaigns related to environmental awareness, raising important questions about how automated systems construct emotional engagement and ecological responsibility through language. While climate communication frequently relies on affective and moral appeals to encourage collective environmental action, limited research has examined how generative AI reproduces these discursive strategies in climate-related texts. This study investigates the construction of emotional language in AI-generated climate communication using Fairclough's three-dimensional model of Critical Discourse Analysis. The dataset comprises forty climate-related texts generated by a large language model through prompts centred on environmental responsibility, climate urgency, and sustainability advocacy. The analysis examines the textual features of emotional discourse, the discursive practices embedded within AI-generated narratives, and the broader ideological implications of automated environmental communication. The findings demonstrate that the generated texts consistently employ inclusive pronouns, evaluative adjectives, moral appeals, and future-oriented narratives to construct climate change as a shared human concern requiring immediate collective action. Empathy is strategically produced through emotionally charged vocabulary that positions environmental protection within a framework of moral obligation and global solidarity. However, the analysis also reveals that these AI-generated narratives frequently reproduce simplified and depoliticised representations of climate responsibility by foregrounding individual behavioural change while minimising structural, political, and institutional dimensions of the climate crisis. The study argues that generative AI systems do not merely replicate neutral information but actively reproduce dominant ideological patterns embedded within contemporary environmental discourse. By extending Critical Discourse Analysis into the context of AI-mediated communication, this research contributes to emerging scholarship on automated discourse, emotional persuasion, and the ideological implications of generative artificial intelligence in public communication.

**Keywords:** Artificial intelligence, climate communication, critical discourse analysis, emotional language, environmental discourse.

## INTRODUCTION

Climate change remains one of the most urgent global challenges of the twenty-first century, intensifying scholarly interest in how environmental issues are communicated to the public. Effective climate communication plays a crucial role in shaping public understanding of ecological risks, influencing environmental attitudes, and encouraging sustainable behavioural practices (Moser, 2021; Nabi et al., 2021). Beyond the transmission of scientific information, climate communication frequently relies on emotional and moral engagement to make environmental concerns meaningful and personally relevant to audiences. Communicators often employ affective narratives to transform complex scientific data into accessible forms of discourse capable of evoking empathy, urgency, fear, hope, and collective responsibility. Emotional framing therefore functions not merely as a rhetorical strategy, but as a significant mechanism through which environmental awareness and ecological consciousness are socially constructed.

Research in environmental communication consistently demonstrates the influence of emotions on public perceptions of climate change. Emotional responses such as anxiety, guilt, fear, compassion, and hope

significantly affect how individuals interpret environmental information and whether they support climate-related action (Nabi et al., 2021). Nabi et al. (2021) argue that emotional appeals increase public engagement by enhancing the perceived seriousness and immediacy of environmental crises. Similarly, Marlon et al. (2021) found that climate-related worry is strongly associated with increased support for environmental policies and greater participation in sustainability initiatives. Emotional discourse consequently plays a central role in constructing public understandings of ecological responsibility, particularly through narratives that position climate change as both a collective threat and a shared moral concern.

Within environmental discourse, empathy has emerged as a particularly important affective dimension of climate communication. Empathy enables audiences to perceive environmental degradation not solely as a scientific or political issue, but also as a social and ethical crisis affecting vulnerable populations, ecosystems, and future generations. Climate communication frequently employs empathy-oriented narratives to cultivate moral identification with environmental suffering and to encourage collective ecological responsibility (Schneider et al., 2021). Linguistic strategies such as inclusive pronouns, evaluative vocabulary, emotive expressions, and moral positioning are often used to construct a sense of shared environmental identity and collective obligation. Through these discursive practices, environmental communication attempts to transform climate change from an abstract global phenomenon into a personally and socially meaningful issue requiring immediate action.

The rapid expansion of digital communication technologies has significantly transformed the circulation of environmental discourse. Social media platforms, online news networks, and digital communication systems have become central spaces for environmental advocacy, climate activism, and public engagement with ecological issues (Veltri & Atanasova, 2022). These platforms facilitate the widespread dissemination of environmental narratives across global audiences while simultaneously reshaping the ways individuals consume, interpret, and participate in climate-related discussions. Increasingly, digital communication environments are also influenced by algorithmic systems and artificial intelligence technologies that regulate information production, visibility, and distribution (Brennen et al., 2022). As a result, artificial intelligence now occupies an increasingly influential position within contemporary public communication.

Recent developments in generative artificial intelligence, particularly large language models (LLMs), have transformed the dynamics of automated text production. Systems such as ChatGPT and other generative AI platforms are capable of producing coherent and contextually appropriate texts across a wide range of communicative domains, including education, journalism, public information campaigns, and environmental communication. These technologies are increasingly integrated into digital assistants, automated content generation systems, and institutional communication practices, allowing AI-generated discourse to reach broad public audiences (Dwivedi et al., 2023). The growing incorporation of generative AI into public communication raises important questions concerning the ideological and emotional dimensions of automated discourse production.

Unlike human communicators, generative AI systems do not possess personal beliefs, emotions, or political intentions. Instead, they generate language through statistical prediction based on patterns extracted from extensive datasets of existing human discourse. Consequently, AI-generated texts may reproduce dominant rhetorical conventions, ideological assumptions, and discursive structures embedded within their training data (Brennen et al., 2022; Dwivedi et al., 2023). This issue becomes particularly significant in the context of climate communication, where emotional persuasion and moral framing are central to public engagement. AI-generated environmental discourse may therefore not only reflect prevailing environmental narratives, but also reinforce depoliticised or simplified understandings of climate responsibility by privileging individual behavioural change over structural and institutional accountability.

Despite increasing academic interest in artificial intelligence and digital communication, research examining AI-generated environmental discourse remains limited. Existing studies in climate communication have primarily focused on human-produced texts such as news reporting, environmental campaigns, political speeches, and social media activism (Veltri & Atanasova, 2022). These studies have demonstrated how emotional framing, narrative construction, and moral appeals shape public responses to climate change. However, insufficient scholarly attention has been given to how generative AI systems construct emotional engagement within environmental discourse and how automated communication reproduces ideological assumptions surrounding

ecological responsibility, collective action, and climate governance. The emergence of AI-mediated public communication therefore presents a significant need for critical investigation into the discursive and ideological implications of automated language production.

From a discourse analytical perspective, the study of AI-generated climate communication offers an important opportunity to examine how emotional meaning and ideological positioning are constructed through automated discourse. Critical Discourse Analysis (CDA) provides a useful theoretical framework for analysing the relationship between language, ideology, and social power. According to Fairclough (2013), discourse not only reflects social realities but also actively shapes systems of knowledge, institutional practices, and ideological relations. CDA has been widely applied in environmental communication research to examine how climate discourse constructs responsibility, risk, governance, and environmental identities (Carvalho, 2021). Applying CDA to AI-generated climate texts enables a critical examination of how generative AI systems reproduce, normalise, or potentially transform dominant environmental narratives within contemporary digital communication environments.

This study investigates the discursive construction of emotional language and empathy in AI-generated climate communication using Fairclough's three-dimensional model of Critical Discourse Analysis. The study analyses climate-related texts generated by a large language model in response to prompts concerning environmental responsibility, climate urgency, and sustainability advocacy. Particular attention is given to linguistic and discursive features such as evaluative vocabulary, affective expressions, inclusive pronouns, moral positioning, and future-oriented narratives. Through this analysis, the study seeks to examine how AI-generated discourse constructs emotional engagement and ecological responsibility within automated climate communication.

The study addresses the following research questions:

- RQ1: What forms of emotive discourse are employed in AI-generated climate communication?
- RQ2: How is empathy concerning environmental issues constructed within AI-generated texts?
- RQ3: What ideological implications emerge from the emotional framing of environmental responsibility in AI-generated climate discourse?

By addressing these questions, this study contributes to emerging scholarship at the intersection of artificial intelligence, discourse studies, and environmental communication. More specifically, the study extends Critical Discourse Analysis into the growing domain of AI-mediated public discourse by examining how generative AI systems reproduce emotional and ideological patterns within environmental communication. As AI-generated texts become increasingly integrated into public information systems, understanding how automated discourse shapes perceptions of climate responsibility and collective ecological action becomes both academically and socially significant.

## LITERATURE REVIEW

Climate communication has become an increasingly significant area of interdisciplinary research due to the growing urgency of environmental crises and the need to encourage public engagement with sustainability initiatives. Earlier studies in environmental communication primarily focused on the dissemination of scientific information concerning climate risks and ecological degradation. However, contemporary scholarship increasingly recognises that public responses to climate change are not shaped solely by factual knowledge, but also by emotional and moral engagement (Moser, 2021). Climate discourse therefore extends beyond the communication of scientific evidence and functions as a persuasive and affective practice that influences how individuals interpret environmental responsibility, ecological risk, and collective action.

Research in environmental psychology and communication studies consistently demonstrates the importance of emotions in shaping public attitudes toward climate change. Emotional responses such as fear, anxiety, guilt, hope, empathy, and moral concern significantly affect environmental awareness and behavioural intention (Brosch, 2021; Nabi et al., 2021). Emotional framing enables communicators to transform abstract scientific

information into socially meaningful narratives that resonate with personal values and ethical responsibilities. Nabi et al. (2021) argue that emotional responses mediate the relationship between exposure to climate information and support for environmental initiatives, particularly when climate discourse emphasises urgency and vulnerability. Similarly, Marlon et al. (2021) found that climate-related anxiety and emotional concern are strongly associated with greater public engagement in environmental advocacy and increased support for climate mitigation policies. These findings indicate that emotional discourse is not simply an accessory to environmental communication, but a central mechanism through which ecological awareness and climate responsibility are constructed.

Among the various emotional dimensions employed in climate communication, empathy has emerged as one of the most influential affective strategies. Empathy allows individuals to emotionally identify with the experiences of communities, ecosystems, and future generations affected by environmental degradation. Through empathy, climate change becomes more than a distant scientific phenomenon and is instead reframed as a human and ethical issue requiring collective moral response. Environmental communication frequently employs empathetic narratives that position the planet as a shared habitat while emphasising humanity's obligation to protect vulnerable populations and ecological systems (Schneider et al., 2021). Linguistic devices such as inclusive pronouns, affective vocabulary, moral evaluations, and future-oriented narratives are commonly used to construct emotional proximity and shared environmental identity. These discursive strategies encourage audiences to perceive climate action not merely as an individual choice, but as a collective social responsibility.

Empathy-driven climate communication is particularly significant because many environmental consequences remain geographically distant, temporally delayed, or socially uneven. Individuals who do not directly experience environmental disasters may perceive climate change as abstract or psychologically remote. Emotional narratives therefore function to reduce this psychological distance by encouraging audiences to imagine the realities faced by affected communities, endangered ecosystems, and future populations (Brosch, 2021). Research in environmental psychology suggests that empathic identification with environmental suffering strengthens moral concern and increases willingness to support climate action. Consequently, empathy operates as a discursive bridge connecting abstract environmental data with personal emotional engagement.

The expansion of digital media technologies has substantially transformed the circulation and production of climate discourse. Social media platforms, online news networks, and digital communication systems have become central spaces for environmental advocacy, public discussion, and climate activism (Veltri & Atanasova, 2022). These digital environments facilitate the rapid dissemination of environmental narratives across global audiences while simultaneously enabling greater public participation in climate-related discussions. Unlike traditional mass communication models, digital communication environments are interactive, decentralised, and heavily influenced by algorithmic systems that prioritise visibility, engagement, and emotional resonance.

Within digital media ecosystems, emotional content often receives greater circulation because emotionally charged messages are more likely to generate attention, interaction, and public engagement. Narratives that evoke fear, outrage, empathy, or hope are frequently amplified through algorithmic recommendation systems and platform logics that prioritise user interaction (Veltri & Atanasova, 2022). As a result, emotional framing has become increasingly central to contemporary climate communication. Digital environmental discourse therefore reflects not only ecological concerns, but also the communicative structures of algorithmically mediated information environments. Understanding the role of affective discourse within these digital ecosystems has consequently become an important area of communication research.

Recent developments in artificial intelligence, particularly generative artificial intelligence and large language models (LLMs), have further transformed the dynamics of public communication. Systems such as ChatGPT, Gemini, and other generative AI technologies are capable of producing coherent and contextually appropriate texts across a wide range of domains, including education, journalism, public information campaigns, and environmental communication. These technologies are increasingly integrated into chatbots, search engines, digital assistants, automated writing systems, and institutional communication practices (Dwivedi et al., 2023). As AI-generated communication becomes more common within digital information environments, concerns have emerged regarding the ideological, ethical, and discursive implications of automated language production.

Unlike human communicators, generative AI systems do not possess emotions, political beliefs, or social consciousness. Instead, they generate discourse through statistical prediction based on extensive datasets of human-produced language. Consequently, AI-generated texts often reproduce dominant rhetorical structures, ideological assumptions, and communicative conventions embedded within their training data (Brennen et al., 2022). Scholars increasingly argue that generative AI systems are not neutral technologies, but sociotechnical systems that reflect and reproduce prevailing cultural and ideological patterns present within digital discourse. This issue becomes especially important in climate communication, where emotional persuasion and moral framing significantly shape public understanding of environmental responsibility.

Studies examining artificial intelligence in communication research have primarily focused on technical performance, automated information processing, sentiment analysis, and computational efficiency. Relatively limited attention has been given to the linguistic and ideological dimensions of AI-generated discourse, particularly in relation to emotional persuasion and environmental communication. Existing scholarship demonstrates that AI systems are capable of generating persuasive and affectively engaging texts that mimic human communicative styles. However, concerns remain regarding whether these systems reinforce simplified or depoliticised narratives surrounding complex social issues (Dwivedi et al., 2023). In the context of climate communication, AI-generated discourse may privilege individual behavioural responsibility while minimising broader structural, political, and institutional dimensions of environmental crises.

The emergence of generative AI also raises important ethical concerns regarding automated persuasion and ideological reproduction. Researchers have argued that large language models may normalise dominant ideological assumptions because they generate language based on statistical regularities extracted from existing discourse. As a result, AI-generated texts may unintentionally reproduce dominant environmental narratives without critically engaging with questions of power, governance, inequality, or institutional accountability. This is particularly relevant in climate communication, where environmental discourse often reflects tensions between individual responsibility and systemic environmental governance. AI-generated climate narratives may therefore shape public perceptions of environmental issues in ways that appear emotionally persuasive while simultaneously simplifying the structural complexity of climate change.

Critical Discourse Analysis (CDA) provides an important theoretical framework for examining these issues. CDA conceptualises discourse as a social practice that both reflects and constructs systems of knowledge, ideology, and power relations (Fairclough, 2013). Rather than viewing language as neutral communication, CDA examines how discourse legitimises particular worldviews, constructs social identities, and normalises ideological assumptions. Within environmental communication research, CDA has been widely applied to analyse how climate discourse constructs environmental responsibility, ecological risk, sustainability, and governance (Carvalho, 2021). Through the analysis of lexical choices, evaluative language, metaphors, modality, and narrative structures, CDA enables researchers to examine how particular representations of climate change become socially dominant within public discourse.

Applying Critical Discourse Analysis to AI-generated climate communication offers a significant opportunity to examine how automated systems reproduce emotional and ideological patterns within environmental discourse. AI-generated texts increasingly participate in public communication ecosystems and may therefore influence how audiences perceive climate urgency, ecological responsibility, and collective action. By examining the linguistic strategies employed within AI-generated environmental texts, researchers can investigate how emotional engagement and empathy are discursively constructed through automated communication. Such analysis is particularly important because generative AI technologies are rapidly becoming integrated into educational resources, institutional messaging, and public information systems.

Although existing scholarship highlights the importance of emotional framing in climate communication and the growing influence of artificial intelligence in digital communication environments, limited research has examined the intersection of these fields from a discourse analytical perspective. Few studies have critically investigated how AI-generated climate discourse constructs empathy, emotional engagement, and moral responsibility through automated language production. Similarly, there remains limited understanding of how generative AI systems reproduce dominant environmental ideologies embedded within contemporary communication practices.

This study addresses this gap by employing Fairclough's three-dimensional model of Critical Discourse Analysis to examine the discursive construction of emotional language in AI-generated climate communication. The study specifically investigates how AI-generated texts employ affective discourse, empathetic narratives, and moral framing to construct environmental responsibility and collective climate action. By extending Critical Discourse Analysis into the emerging domain of AI-mediated environmental communication, this research contributes to ongoing scholarly discussions concerning generative artificial intelligence, automated persuasion, and the ideological implications of digital discourse production.

## METHODOLOGY

This study employs a qualitative research design grounded in Critical Discourse Analysis (CDA) to examine the construction of emotional language and empathy in AI-generated climate communication. A qualitative discourse analytical approach is particularly appropriate because the study seeks to investigate how linguistic choices construct meaning, emotional engagement, and ideological positioning within environmental narratives rather than merely measuring the frequency of lexical items. Climate communication is inherently discursive, as environmental issues are communicated through rhetorical framing, moral evaluation, and emotional persuasion that influence public understanding of ecological responsibility and climate action (Carvalho, 2021). Consequently, Critical Discourse Analysis provides a suitable methodological framework for examining how generative artificial intelligence systems reproduce emotional and ideological patterns within automated environmental discourse.

The methodological framework of this study is informed by Fairclough's (2013) three-dimensional model of Critical Discourse Analysis, which conceptualises discourse as operating simultaneously across textual, discursive, and social dimensions. According to Fairclough (2013), discourse is not merely a neutral reflection of reality but a social practice that shapes systems of knowledge, ideological assumptions, and power relations. The first dimension of the framework focuses on textual analysis, which examines the linguistic features and rhetorical structures within discourse. The second dimension examines discursive practice, including the production, circulation, and interpretation of texts. The third dimension investigates the relationship between discourse and broader social practices, particularly the ideological and institutional structures embedded within communication. This framework has been widely applied in environmental communication research to analyse how climate discourse constructs environmental risk, responsibility, governance, and collective identity (Carvalho, 2021). Applying this model to AI-generated texts enables the study to investigate how automated language systems reproduce or transform dominant emotional narratives associated with climate change communication.

The dataset for this study consists of climate-related texts generated using OpenAI's ChatGPT, specifically the GPT-4 large language model. The data collection process was conducted between January and February 2026. GPT-4 was selected because it represents one of the most widely used generative artificial intelligence systems currently employed in digital communication and automated text production. As a large language model trained on extensive corpora of human-produced discourse, GPT-4 is capable of generating coherent and contextually relevant texts across a wide range of communicative domains, including environmental communication (Dwivedi et al., 2023). Since generative AI systems derive their outputs from statistical patterns present within human-generated texts, analysing AI-produced climate communication offers an opportunity to examine how automated discourse reproduces prevailing environmental narratives and emotional framing strategies.

To ensure methodological consistency and transparency, the study employed a structured prompt design procedure. Prompt engineering was informed by recent scholarship on generative AI analysis, which emphasises the importance of standardised prompts in producing comparable and analytically reliable outputs (Dwivedi et al., 2023). The prompts were intentionally designed to elicit responses resembling public climate communication discourse, particularly texts that combined informational and persuasive elements. The prompts focused on themes related to environmental urgency, climate responsibility, sustainability advocacy, and emotional engagement.

Examples of prompts used in the study include the following:

1. Explain why climate change is a major global problem.
2. Encourage people to prioritise environmental protection.
3. Describe the emotional impact of environmental destruction.
4. Explain why future generations should be concerned about climate change.
5. Persuade readers to adopt environmentally sustainable behaviour.

Each prompt was submitted multiple times to generate a sufficiently varied dataset while maintaining thematic consistency across responses. Eight responses were generated for each prompt, resulting in a total dataset of forty AI-generated climate-related texts. The generated texts ranged between approximately 150 and 300 words each. This corpus size was considered sufficient for qualitative discourse analysis because it allowed for close textual examination while still providing adequate variation in linguistic and rhetorical patterns.

The study prioritises the analysis of discursive and emotional construction rather than factual accuracy or scientific validity. Consequently, the dataset was selected specifically for its suitability in examining linguistic features associated with emotional engagement, including affective vocabulary, evaluative language, inclusive pronouns, moral appeals, and future-oriented narratives. The analysis therefore focuses on how climate responsibility and ecological concern are discursively constructed within AI-generated communication.

The analytical procedure followed Fairclough's three-dimensional model of Critical Discourse Analysis. At the textual level, the study examined the linguistic resources employed to construct emotional engagement within AI-generated climate discourse. Particular attention was given to lexical choices, evaluative adjectives, affective expressions, modal verbs, metaphorical framing, and pronoun usage. Previous research has demonstrated that environmental communication frequently employs emotionally charged language to position climate change as ethically urgent and socially consequential (Brosch, 2021). Accordingly, the textual analysis investigated how AI-generated texts utilised emotive discourse to construct empathy, urgency, moral obligation, and collective environmental identity.

At the level of discursive practice, the study examined how AI-generated texts structured environmental narratives and positioned audiences within climate discourse. This stage of analysis focused on rhetorical organisation, persuasive strategies, and narrative framing. Particular attention was given to how the texts assigned responsibility for climate action, represented environmental vulnerability, and constructed relationships between individual behaviour and collective ecological responsibility. Environmental communication frequently employs discursive strategies that emphasise shared vulnerability, moral accountability, and collective action (Veltri & Atanasova, 2022). The analysis therefore examined whether AI-generated communication reproduced these dominant narrative structures or introduced alternative patterns of representation.

At the level of social practice, the study interpreted the broader ideological implications of the discursive patterns identified within the dataset. This stage examined how AI-generated climate communication reflected wider societal assumptions regarding sustainability, environmental governance, and ecological responsibility. Particular attention was given to whether the texts privileged individual behavioural change over structural or institutional responsibility in addressing climate issues. Since generative AI systems reproduce linguistic patterns extracted from existing human discourse, analysing these texts provides insight into how dominant environmental ideologies are reproduced within automated communication systems.

The study employed an iterative coding process combining close textual analysis with thematic interpretation. During the initial phase of coding, all forty texts were repeatedly reviewed to identify recurring linguistic and discursive patterns associated with emotional engagement. Significant textual features such as affective vocabulary, evaluative framing, moral positioning, metaphorical expressions, and pronoun usage were manually coded. The coding process was conducted in multiple stages to ensure analytical consistency and interpretive reliability.

In the second phase of analysis, the identified linguistic patterns were grouped into broader thematic categories representing recurring forms of emotional discourse within AI-generated climate communication. Emerging thematic categories included collective environmental responsibility, empathy toward vulnerable communities and ecosystems, climate urgency, moral obligation, future-oriented environmental concern, and calls for collective action. These themes were subsequently interpreted within the broader context of environmental communication research and Critical Discourse Analysis.

To enhance methodological rigour and analytical reliability, the coding process involved repeated close readings conducted over separate analytical sessions. Coding categories were continuously refined throughout the analysis to ensure consistency in thematic interpretation. Additionally, representative textual excerpts were compared across the dataset to confirm recurring discursive tendencies rather than isolated linguistic occurrences. This iterative analytical process helped strengthen the credibility and transparency of the study's interpretive findings.

The final stage of analysis involved interpreting how these emotional and discursive patterns reflected broader ideological assumptions embedded within contemporary climate communication. Drawing upon concepts from environmental communication research and environmental psychology, the study examined how AI-generated discourse reproduced dominant emotional frameworks associated with climate awareness and environmental responsibility (Brosch, 2021; Nabi et al., 2021). Through this interpretive process, the study sought to provide a comprehensive understanding of how generative artificial intelligence constructs emotional engagement and ecological responsibility within automated climate discourse.

The dataset consisted exclusively of AI-generated texts and did not involve human participants or personal data. Consequently, formal ethical approval was not required for the study. Nevertheless, the research acknowledges the broader ethical implications associated with generative artificial intelligence and automated communication technologies. Scholars have increasingly raised concerns regarding the capacity of AI-generated discourse to shape public understanding, reinforce dominant ideological assumptions, and influence digital information ecosystems (Dwivedi et al., 2023). By critically examining the emotional and ideological dimensions of AI-generated climate communication, this study contributes to ongoing discussions concerning the ethical and communicative implications of automated discourse production.

## **Finding**

The analysis of the forty AI-generated climate communication texts reveals several recurring discursive patterns through which emotional engagement, empathy, and environmental responsibility are constructed. Across the dataset, the generated responses consistently frame climate change as a shared moral concern requiring collective action and emotional commitment. The findings demonstrate that AI-generated climate discourse relies heavily on affective vocabulary, moral positioning, inclusive identity construction, and future-oriented narratives to encourage environmental awareness and pro-environmental attitudes. At the same time, the analysis also indicates that these emotionally persuasive narratives frequently simplify the structural and political dimensions of climate change by foregrounding individual responsibility over institutional or systemic accountability.

The findings are organised into four major thematic patterns: (1) the construction of collective environmental responsibility, (2) the emotional framing of climate urgency, (3) the discursive construction of empathy, and (4) the simplification of environmental responsibility through individualised climate narratives.

## **The Construction of Collective Environmental Responsibility**

One of the most dominant patterns identified in the dataset is the repeated construction of collective environmental responsibility through inclusive linguistic strategies. Across the AI-generated texts, climate change is consistently represented as a shared global issue that requires collective human action. This pattern is primarily realised through the extensive use of inclusive pronouns such as “we,” “our,” and “us,” which function to construct solidarity and reduce social distance between the speaker and the audience.

Several generated responses contain expressions such as:

- *“We must work together to protect our planet before it is too late.”*
- *“Our future depends on the choices we make today.”*
- *“We all share responsibility for preserving the Earth for future generations.”*

These examples illustrate how AI-generated discourse positions climate action within a framework of collective moral obligation. The repeated use of “we” and “our” constructs humanity as a unified environmental community facing a common ecological threat. Rather than assigning responsibility to specific governments, corporations, or industries, the discourse distributes accountability across humanity as a whole. Through this linguistic strategy, climate change becomes discursively framed as a universal human concern transcending political, geographical, and economic boundaries.

Table 1 summarises the dominant linguistic patterns associated with collective environmental responsibility identified across the dataset.

| Linguistic Feature      | Example from Dataset               | Discursive Function                |
|-------------------------|------------------------------------|------------------------------------|
| Inclusive pronouns      | “We must act now”                  | Constructs collective identity     |
| Shared ownership        | “Our planet is suffering”          | Builds emotional solidarity        |
| Moral obligation        | “We have a duty to protect nature” | Frames climate action ethically    |
| Collective action verbs | “Work together,” “unite,” “join”   | Encourages communal responsibility |

Table 1 Dominant Linguistic Patterns

The use of inclusive pronouns operates not merely as a grammatical feature but as an ideological strategy that constructs environmental protection as a universally shared moral responsibility. In many texts, the pronouns are reinforced by lexical items associated with ethical obligation, including *“responsibility,” “duty,” “care,” “protect,”* and *“preserve.”* For example:

- *“We have a moral duty to care for the planet and protect future generations.”*
- *“It is our responsibility to preserve the environment before irreversible damage occurs.”*

These statements demonstrate how AI-generated discourse integrates emotional engagement with ethical positioning. Environmental protection is not represented as an optional social activity but as a moral imperative associated with collective human identity. The discourse therefore encourages readers to perceive climate action as ethically necessary rather than politically negotiable.

Another significant feature of collective responsibility discourse is the recurring representation of Earth as a *“shared home.”* Expressions such as *“our shared home,” “the only planet we have,”* and *“the future of our world”* appear repeatedly throughout the corpus. For example:

- *“Climate change threatens our shared home and the wellbeing of all living things.”*

The metaphor of Earth as a shared home strengthens emotional identification with environmental issues by transforming the planet into a familiar and emotionally meaningful space. This metaphorical framing encourages audiences to perceive environmental degradation as a direct threat to communal wellbeing and human continuity.

Despite the strong emphasis on collective responsibility, the discourse rarely differentiates between varying levels of contribution to climate change. Industrial actors, multinational corporations, and political institutions are largely absent from the generated narratives. Instead, responsibility is broadly distributed across society

through generalised references to humanity. This pattern contributes to a depoliticised framing of environmental responsibility in which structural inequalities and institutional accountability become less visible.

### The Emotional Framing of Climate Urgency

Another prominent pattern within the dataset is the emotional framing of climate urgency. AI-generated texts consistently portray climate change as an immediate and escalating crisis requiring urgent intervention. This urgency is constructed through emotionally charged vocabulary, evaluative adjectives, intensifiers, and catastrophic imagery.

Common lexical items identified throughout the corpus include:

- urgent
- devastating
- dangerous
- catastrophic
- critical
- alarming
- irreversible

These lexical choices amplify the perceived seriousness of climate change and create a strong sense of immediacy. Representative examples include:

- *“Climate change is an urgent crisis threatening the survival of our planet.”*
- *“The devastating effects of global warming are becoming impossible to ignore.”*
- *“Immediate action is critical if humanity hopes to avoid environmental catastrophe.”*

Table 2 outlines the dominant linguistic resources used to construct climate urgency.

| Linguistic Feature    | Example from Dataset                      | Discursive Function              |
|-----------------------|-------------------------------------------|----------------------------------|
| Evaluative adjectives | “devastating,” “critical”                 | Intensifies environmental threat |
| Intensifiers          | “extremely,” “rapidly”                    | Amplifies urgency                |
| Crisis framing        | “global emergency,” “climate catastrophe” | Constructs environmental danger  |
| Temporal urgency      | “before it is too late”                   | Encourages immediate action      |

Table 2 Dominant Linguistic Resources

One of the most frequent rhetorical strategies involves the use of temporal pressure through expressions such as:

- *“before it is too late”*
- *“time is running out”*
- *“future generations may suffer irreversible consequences”*

These temporal constructions position climate change as an immediate moral and existential crisis. The discourse therefore creates emotional tension by emphasising the narrowing window for environmental action. The repeated invocation of urgency functions to encourage public engagement by framing environmental inaction as dangerous and ethically irresponsible.

The analysis also reveals extensive use of catastrophic environmental imagery. Many texts reference melting glaciers, rising sea levels, extreme weather events, deforestation, and species extinction. For example:

- *“Rising temperatures are destroying ecosystems and forcing communities to flee their homes.”*
- *“Wildfires, floods, and droughts are becoming more frequent as the planet continues to warm.”*

Such descriptions function as emotionally evocative narrative devices that transform abstract scientific concerns into vivid and emotionally resonant scenarios. Through these depictions, environmental degradation becomes more immediate and emotionally comprehensible to audiences.

However, although urgency is strongly emphasised, the discourse often lacks detailed structural analysis of climate causation. The generated texts frequently describe climate change as a global crisis without clearly identifying political, economic, or industrial systems contributing to environmental degradation. For instance, while fossil fuels and pollution are occasionally mentioned, discussions of corporate responsibility, international policy, or economic inequality remain limited.

As a result, the urgency narrative frequently operates at a broad emotional and moral level rather than through detailed socio-political explanation. The discourse prioritises emotional persuasion over structural complexity, reinforcing simplified understandings of climate governance.

### The Discursive Construction of Empathy

Empathy represents another central feature of the AI-generated climate communication texts. Across the dataset, the generated discourse consistently attempts to establish emotional connections between audiences and the victims of environmental degradation, including vulnerable communities, future generations, wildlife, and ecosystems.

One recurring strategy involves references to future generations. Statements such as the following appear repeatedly:

- *“We must protect the planet for our children and grandchildren.”*
- *“Future generations deserve a healthy and sustainable world.”*
- *“The decisions we make today will determine the future our children inherit.”*

These expressions function as moral appeals encouraging audiences to imagine the long-term consequences of environmental neglect. By foregrounding future generations, the discourse constructs climate action as an intergenerational ethical obligation rather than merely a present-day policy issue.

Table 3 summarises the dominant empathetic strategies identified in the dataset.

| Empathetic Strategy          | Example from Dataset            | Discursive Function                 |
|------------------------------|---------------------------------|-------------------------------------|
| Future generation narratives | “our children’s future”         | Encourages moral responsibility     |
| Vulnerable communities       | “families displaced by floods”  | Creates emotional identification    |
| Wildlife imagery             | “animals losing their habitats” | Humanises environmental destruction |
| Personification of nature    | “the Earth needs healing”       | Strengthens emotional attachment    |

Table 3 Dominant Empathetic Strategies

Another prominent empathetic strategy involves the representation of vulnerable communities affected by environmental disasters. Several texts include references to displaced populations, food insecurity, and environmental suffering. For example:

- *“Millions of families are already suffering from floods, droughts, and rising sea levels.”*
- *“Communities around the world are losing their homes due to climate disasters.”*

These narratives encourage emotional identification with environmental victims by emphasising human suffering and vulnerability. Climate change is therefore framed not solely as a scientific issue but as a humanitarian crisis affecting real lives and communities.

The dataset also demonstrates extensive personification of nature. The Earth and natural environment are frequently described using human-like characteristics and emotional language. Examples include:

- *“The Earth is crying out for help.”*
- *“Nature needs our protection before it is permanently damaged.”*
- *“Our planet is suffering because of human neglect.”*

Personification transforms environmental degradation into an emotionally relational issue rather than a purely ecological process. By presenting nature as vulnerable and injured, the discourse encourages readers to develop emotional attachment and ethical concern toward the environment.

Wildlife imagery also contributes significantly to empathetic framing. References to endangered animals, disappearing habitats, and ecosystem destruction appear throughout the dataset. For example:

- *“Countless species are losing their habitats because of climate change.”*
- *“Animals are suffering as forests disappear and oceans become polluted.”*

These descriptions strengthen emotional engagement by positioning non-human life as victims of environmental destruction deserving protection and compassion.

### **Individualisation and Simplification of Environmental Responsibility**

Although the AI-generated texts effectively construct emotional engagement and empathy, the analysis also reveals a recurring tendency toward simplified and individualised representations of environmental responsibility. Across the dataset, climate action is frequently framed in terms of personal lifestyle changes and individual behavioural choices rather than systemic or institutional transformation.

Common recommendations include:

- recycling,
- reducing plastic use,
- conserving electricity,
- planting trees,
- using reusable products.

Representative examples include:

- *“Everyone can help by recycling and reducing waste.”*
- *“Simple daily actions can make a big difference for the environment.”*
- *“Turning off unused lights and reducing plastic consumption can help save the planet.”*

Table 4 summarises the dominant forms of individualised environmental discourse.

| Individualised Action  | Example from Dataset           | Discursive Effect                   |
|------------------------|--------------------------------|-------------------------------------|
| Recycling              | “Recycle whenever possible”    | Emphasises personal behaviour       |
| Energy conservation    | “Use less electricity”         | Frames responsibility individually  |
| Lifestyle modification | “Choose eco-friendly products” | Encourages consumer-based solutions |
| Daily habits           | “Reduce plastic use”           | Simplifies climate responsibility   |

Table 4 Dominant Forms of Individualised Environmental Discourse.

While these actions are environmentally relevant, the overwhelming emphasis on individual behaviour results in limited discussion of structural climate issues such as:

- industrial emissions,
- fossil fuel dependency,
- global capitalism,
- environmental policy,
- corporate accountability,
- international governance.

For example, references to governments or corporations are comparatively rare, and when mentioned, they are usually discussed in vague terms such as:

- *“Leaders should work together to address climate change.”*

The absence of detailed structural critique suggests that AI-generated climate discourse reproduces dominant mainstream sustainability narratives that prioritise personal responsibility over systemic transformation. Climate change is therefore represented primarily as a behavioural problem solvable through individual ethical action.

This simplification is further reinforced by the use of optimistic motivational discourse. Many texts emphasise empowerment and positivity through statements such as:

- *“Together, small actions can create meaningful change.”*
- *“Every individual can contribute to saving the planet.”*

Such statements encourage emotional optimism and collective participation but simultaneously minimise the scale and complexity of structural environmental crises.

Overall, the findings indicate that AI-generated climate communication reproduces many of the dominant emotional and ideological patterns commonly observed in contemporary environmental discourse. Through inclusive pronouns, moral framing, empathetic narratives, and emotionally charged language, the generated texts construct climate change as a shared moral challenge requiring collective action and emotional commitment. However, the discourse also demonstrates a tendency toward depoliticisation by foregrounding individual responsibility while minimising structural and institutional dimensions of environmental governance.

The findings therefore suggest that generative AI systems do not merely reproduce neutral environmental information. Instead, they actively replicate dominant affective and ideological frameworks embedded within contemporary climate communication. As AI-generated texts become increasingly integrated into digital information ecosystems, these discursive patterns may play an important role in shaping public perceptions of environmental responsibility, collective action, and climate governance.

## DISCUSSION

The findings of this study demonstrate that AI-generated climate communication consistently reproduces dominant emotional and ideological patterns commonly associated with contemporary environmental discourse. Through the use of inclusive pronouns, evaluative language, empathetic narratives, and urgency-oriented framing, the analysed texts construct climate change as a shared moral crisis requiring collective action and ethical responsibility. These patterns suggest that generative artificial intelligence systems do not merely produce neutral informational content, but actively replicate discursive conventions embedded within existing environmental communication practices. The findings therefore support previous scholarship arguing that large language models generate discourse through statistical reproduction of dominant linguistic and ideological structures present within their training data (Dwivedi et al., 2023).

One of the most significant findings concerns the discursive construction of collective environmental responsibility. The repeated use of inclusive pronouns such as “we,” “our,” and “us” positions humanity as a unified actor collectively responsible for addressing climate change. This linguistic strategy reflects a broader tendency in environmental communication to construct climate action through narratives of global solidarity and shared vulnerability (Veltri & Atanasova, 2022). By framing environmental protection as a universal moral obligation, the AI-generated texts encourage audiences to interpret climate change as a collective human concern rather than a geographically or politically isolated issue.

From a Critical Discourse Analysis perspective, however, the construction of collective identity also carries important ideological implications. The universalising language employed throughout the dataset tends to distribute responsibility equally across humanity without differentiating between unequal contributions to environmental degradation. Industrial corporations, fossil fuel industries, global economic systems, and political institutions are largely absent from the discourse. Instead, climate responsibility is framed through generalised appeals to collective moral action. This finding reflects Carvalho’s (2021) argument that environmental discourse frequently depoliticises climate change by transforming structural and institutional problems into broadly shared ethical concerns. While such framing may strengthen emotional solidarity and public engagement, it may also obscure systemic inequalities in environmental responsibility and governance.

The findings additionally demonstrate that emotional urgency functions as a central rhetorical mechanism within AI-generated climate communication. The frequent use of evaluative adjectives such as “urgent,” “critical,” “devastating,” and “dangerous” constructs climate change as an immediate existential threat requiring rapid intervention. Emotional urgency has long been recognised as an influential strategy in environmental communication because it translates complex scientific information into emotionally resonant narratives capable of attracting public attention (Marlon et al., 2021). In the analysed texts, urgency-oriented discourse consistently emphasises the seriousness of environmental degradation while reinforcing the moral necessity of climate action.

Nevertheless, the findings suggest that urgency within AI-generated discourse frequently operates at a relatively generalised and abstract level. Climate change is repeatedly described as a “global crisis” or “planetary emergency,” yet detailed explanations of environmental governance, industrial systems, or political-economic structures remain limited. This tendency indicates that AI-generated climate discourse prioritises emotional

resonance over analytical complexity. Such simplification reflects broader patterns in digital environmental communication, where emotionally engaging narratives are often privileged because they are more accessible and more likely to generate audience attention within algorithmically mediated information environments (Veltri & Atanasova, 2022).

This finding is particularly significant in the context of generative artificial intelligence because AI-generated texts are increasingly integrated into digital information ecosystems where speed, accessibility, and engagement frequently take precedence over analytical depth. Consequently, AI systems may contribute to the circulation of emotionally persuasive but structurally simplified representations of climate change. While these narratives may successfully encourage public concern and environmental awareness, they may simultaneously limit deeper understanding of the institutional and political dimensions of the climate crisis.

Another important finding concerns the role of empathy in reducing psychological distance between audiences and environmental problems. The analysed texts consistently employ empathetic narratives involving vulnerable communities, endangered ecosystems, future generations, and environmental suffering. References to displaced populations, species extinction, environmental disasters, and future children construct emotional proximity between audiences and climate consequences. Such discursive strategies align with existing research in environmental psychology demonstrating that empathy increases moral concern and strengthens engagement with environmental issues (Brosch, 2021).

Particularly notable is the frequent invocation of future generations within the dataset. Expressions referring to “our children,” “future generations,” and “the world we leave behind” frame climate action as an intergenerational ethical responsibility. These narratives position environmental protection within a moral framework extending beyond present social conditions toward the preservation of future human wellbeing. The prominence of future-oriented empathy suggests that AI-generated discourse reproduces a dominant communicative pattern commonly observed in climate campaigns and sustainability advocacy, where environmental responsibility is legitimised through moral concern for future populations.

The personification of nature identified in the findings further reinforces empathetic engagement. By representing the Earth as “suffering,” “crying for help,” or “needing protection,” the AI-generated texts transform environmental degradation into an emotionally relational issue. Nature is discursively constructed not as an abstract ecological system, but as a vulnerable entity deserving care and moral protection. This rhetorical strategy strengthens emotional attachment to environmental issues while simultaneously encouraging ethical identification with the natural world.

Despite the strong emphasis on empathy and collective responsibility, the findings reveal a persistent tendency toward the individualisation of climate action. Across the dataset, environmental solutions are overwhelmingly framed through personal behavioural changes such as recycling, reducing waste, conserving electricity, and adopting sustainable consumption practices. Structural discussions concerning industrial emissions, global capitalism, environmental policy, or institutional accountability remain comparatively underdeveloped. This reflects a broader ideological tendency within mainstream environmental discourse to frame climate responsibility primarily through individual morality and consumer behaviour rather than systemic transformation (Carvalho, 2021).

From a critical discourse perspective, this pattern is particularly important because it reveals how AI-generated communication may reinforce dominant neoliberal sustainability narratives. By focusing on individual behavioural solutions, the discourse shifts attention away from institutional actors and systemic environmental structures. Climate change becomes represented as a problem solvable through personal lifestyle modification rather than collective political transformation. Consequently, environmental responsibility is moralised at the level of individual conduct while broader power relations remain largely unexamined.

This ideological tendency does not necessarily emerge because generative AI systems possess political intention. Rather, it reflects the statistical reproduction of dominant environmental narratives embedded within publicly available communication datasets. Since large language models learn from extensive corpora of existing human discourse, the generated texts inevitably mirror prevailing communicative conventions present within

environmental campaigns, media reporting, educational materials, and sustainability discourse. The findings therefore suggest that generative AI systems operate less as independent creators of new ideological frameworks and more as amplifiers of existing discursive norms.

At the same time, the study demonstrates that AI-generated communication possesses significant persuasive and affective capacity. The analysed texts consistently produce coherent emotional narratives capable of constructing empathy, urgency, and moral responsibility in ways remarkably similar to human-produced climate communication. This finding has important implications for the future of automated public discourse. As generative AI technologies become increasingly integrated into digital communication systems, educational platforms, institutional messaging, and media environments, AI-generated discourse may play a growing role in shaping public understandings of environmental issues and climate responsibility.

The findings therefore contribute to emerging scholarship concerning the ideological implications of AI-mediated communication. Existing research on generative AI has largely focused on technical capabilities, computational performance, and ethical concerns related to misinformation or bias. This study extends current scholarship by demonstrating how generative AI systems reproduce emotional and ideological structures within environmental discourse. More specifically, the study illustrates that AI-generated climate communication reproduces dominant affective frameworks centred on collective responsibility, emotional urgency, empathy, and moral obligation while simultaneously simplifying structural dimensions of environmental governance.

Overall, the findings indicate that AI-generated climate communication reflects broader ideological tensions within contemporary environmental discourse itself. On one hand, emotionally engaging narratives may increase public awareness, moral concern, and ecological consciousness. On the other hand, the same narratives may contribute to depoliticised understandings of climate change by prioritising individual responsibility and emotional persuasion over structural critique. Understanding these discursive dynamics is increasingly important as artificial intelligence becomes more deeply embedded within public communication ecosystems. The growing visibility of AI-generated discourse means that generative artificial intelligence may not simply communicate environmental information, but actively participate in shaping how climate responsibility, ecological crisis, and collective action are socially understood.

## CONCLUSION

This study examined the construction of emotional language and empathy in AI-generated climate communication through the application of Fairclough's Critical Discourse Analysis framework. As generative artificial intelligence becomes increasingly integrated into digital communication environments, AI-generated texts are assuming a more visible role in shaping public discourse surrounding environmental issues, sustainability, and climate responsibility. The study therefore sought to investigate how automated communication systems construct emotional engagement, moral responsibility, and environmental awareness through discursive and linguistic strategies. By analysing forty climate-related texts generated by a large language model, the research explored how affective discourse functions within AI-mediated climate communication and what ideological implications emerge from these representations.

The findings demonstrate that AI-generated climate communication consistently relies on emotional framing strategies centred on empathy, urgency, and collective responsibility. Across the dataset, the generated texts employed inclusive pronouns, evaluative adjectives, affective vocabulary, and moral appeals to position climate change as a shared global concern requiring immediate collective action. Expressions such as "we must act now," "our shared responsibility," and "protecting future generations" illustrate how the discourse constructs environmental protection as both a moral obligation and a collective human duty. These findings indicate that generative AI systems are capable of producing emotionally persuasive environmental narratives that closely resemble the communicative conventions commonly observed in human-produced climate discourse.

The analysis further revealed that emotional urgency operates as a dominant rhetorical feature within AI-generated climate communication. Climate change is repeatedly represented as a critical global crisis through the use of intensifying language and catastrophic environmental imagery. Lexical choices such as "urgent," "devastating," "critical," and "irreversible" function to heighten perceptions of environmental danger and

encourage immediate concern regarding ecological degradation. Through these emotional strategies, AI-generated discourse translates complex environmental issues into accessible and emotionally resonant narratives capable of attracting audience attention and reinforcing the seriousness of climate threats. In this respect, AI-generated texts reproduce established rhetorical patterns frequently employed within environmental activism, public campaigns, and media reporting.

Another important finding concerns the central role of empathy within AI-generated environmental narratives. The analysed texts frequently encouraged readers to imagine the experiences of vulnerable communities, endangered ecosystems, and future generations affected by climate change. References to displaced populations, species extinction, environmental disasters, and future children functioned as discursive mechanisms designed to reduce psychological distance between audiences and environmental problems. The findings therefore support existing research in environmental communication and environmental psychology suggesting that empathetic narratives strengthen moral concern and increase public engagement with climate issues (Brosch, 2021). By foregrounding environmental suffering and intergenerational responsibility, the AI-generated texts constructed climate change not merely as a scientific issue, but as an ethical and humanitarian concern requiring emotional and moral response.

Despite the effectiveness of these emotional strategies, the study also identified important limitations and ideological tendencies within AI-generated climate communication. One of the most significant findings was the persistent simplification of environmental responsibility through individualised narratives of climate action. Across the dataset, environmental solutions were predominantly framed through personal behavioural changes such as recycling, conserving energy, reducing waste, and adopting environmentally friendly lifestyles. In contrast, broader structural dimensions of climate change, including industrial emissions, global capitalism, environmental governance, and institutional accountability, received comparatively limited attention.

This finding suggests that AI-generated climate discourse reproduces dominant sustainability narratives commonly found in mainstream environmental communication, where individual morality and consumer behaviour are prioritised over systemic political and economic transformation. From a Critical Discourse Analysis perspective, this pattern is ideologically significant because it shifts responsibility away from institutional actors and distributes climate accountability across society in generalised moral terms. While such framing may encourage environmentally responsible behaviour, it may also contribute to depoliticised understandings of climate change by obscuring structural inequalities and broader systems of environmental power. The study therefore demonstrates that generative AI systems do not simply communicate environmental information neutrally; rather, they reproduce dominant ideological assumptions embedded within existing communication environments.

The findings also contribute to broader discussions concerning the role of generative artificial intelligence in public discourse production. Since large language models generate texts through statistical patterns extracted from extensive datasets of human-produced communication, the emotional and ideological tendencies identified in this study reflect wider discursive norms already present within contemporary climate discourse. AI-generated communication therefore appears to function primarily as an extension and amplification of existing environmental narratives rather than as a fundamentally new communicative form. This observation aligns with recent scholarship suggesting that generative AI systems frequently reproduce dominant linguistic and ideological structures embedded within their training data (Dwivedi et al., 2023).

The increasing visibility of AI-generated discourse within digital communication ecosystems raises important implications for environmental communication research and public information practices. As generative AI technologies become more widely integrated into educational materials, automated information systems, digital media platforms, and institutional communication, AI-generated environmental narratives may exert growing influence over how climate change is publicly understood and interpreted. The emotional persuasiveness of AI-generated texts means that automated communication systems may shape public perceptions of environmental responsibility, ecological urgency, and collective action in increasingly significant ways. Understanding the discursive tendencies of these systems is therefore essential for evaluating the broader social and ideological implications of automated communication technologies.

This study contributes to emerging scholarship at the intersection of artificial intelligence, Critical Discourse Analysis, and environmental communication by providing a discourse-centred examination of emotional language in AI-generated climate texts. More specifically, the research extends Critical Discourse Analysis into the emerging domain of AI-mediated public discourse by demonstrating how generative AI systems reproduce affective and ideological patterns associated with contemporary environmental communication. The study further contributes to existing scholarship by showing that AI-generated climate discourse simultaneously promotes emotional engagement and reproduces simplified understandings of environmental responsibility.

Several limitations of the study should nevertheless be acknowledged. The dataset analysed in this research consisted of forty AI-generated texts produced through a limited set of prompts using a single large language model. While the dataset provided sufficient material for qualitative discourse analysis, future research could expand the scope of investigation by analysing multiple AI systems, multilingual datasets, or platform-specific forms of automated environmental communication. Comparative studies examining differences between human-generated and AI-generated climate discourse may also provide further insight into the distinctive communicative characteristics of automated language production.

Future research may additionally benefit from integrating discourse analysis with audience reception studies to examine how readers interpret and respond to AI-generated environmental narratives. Investigating perceptions of credibility, emotional impact, trustworthiness, and persuasive effectiveness could provide valuable insight into the social influence of AI-mediated communication. Further exploration of the ethical implications of generative AI in environmental communication would also be beneficial, particularly concerning questions of ideological reproduction, misinformation, and automated persuasion.

In conclusion, this study demonstrates that AI-generated climate communication relies heavily on emotional and empathetic discourse to construct environmental responsibility and encourage climate awareness. Through strategies centred on urgency, collective identity, moral obligation, and empathy, generative AI systems reproduce many of the dominant communicative conventions present within contemporary environmental discourse. However, these narratives frequently simplify the structural complexity of climate change by prioritising individual behavioural responsibility over broader systemic transformation. As artificial intelligence becomes increasingly embedded within digital communication environments, critical examination of AI-generated discourse will become increasingly important for understanding how environmental narratives, public knowledge, and ecological responsibility are constructed within the evolving digital landscape.

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