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(AIJBES)**www.gaexcellence.com/aijbess**CONSTRUCTING EMPATHY THROUGH AI-GENERATED
FILM: A SEMIOTIC ANALYSIS OF ENVIRONMENTAL CSR
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Abstract:

Environmental NGOs are beginning to use generative AI to produce campaign films. This creates a problem specific to advocacy communication, which has long relied on the assumption that what appears on screen was actually recorded. This study asks whether films with no photographic origin can still evoke environmental empathy. Three AI-generated environmental short films (DRIFT, Crave and Earth Memories) were analysed through Christian Metz's film semiotics, which treats cinema as a system of codes rather than a record of events. Repeated close viewing was used to trace how framing, editing, sound and narrative structure produced meaning. Six NGO communication practitioners were then interviewed. Empathy in these films was built through symbolic and hyperreal imagery, and through sound design used to carry emotional weight. Photographic realism mattered less. Practitioners described AI as assistive rather than a substitute for human communicators, valuing its speed and low cost while insisting on human judgement, factual accuracy and ethical responsibility; knowing a film was synthetically produced did not appear to reduce their own emotional engagement with it. For these practitioners, authenticity rested on organisational transparency and the quality of the story rather than on the image being a photographic record. The study extends

Metz's semiotics to synthetic film and offers NGOs practical guidance for environmental campaigns.

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AI-Generated Film; Communication Practitioners; CSR Communication; NGO Storytelling; Semiotic Analysis



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Introduction

Visual storytelling has always sat at the heart of Corporate Social Responsibility (CSR) communication, because it takes an abstract commitment and turns it into something an audience can picture and feel. Nonprofit and advocacy organisations lean on emotionally resonant imagery, real testimonials and narrative arcs that give a social problem a human face. One person's story usually draws a stronger empathic response than a column of statistics. Generative AI is now changing how that work gets done. In the space of a few years, text-to-video and AI filmmaking tools have gone from experimental curiosity to routine production use, a shift visible in the rapid spread of AI filmmaking events and in the appearance of fully AI-generated short films at major festivals.

For NGOs with tight budgets and small production teams, AI-generated film is an appealing option. Visual sequences can be produced faster and at a fraction of conventional cost, with no location shoots, no large crews and no direct access to the communities being portrayed. The convenience carries a cost, though. CSR and advocacy campaigns have long traded on the documentary quality of photographic images: viewers assume, more or less automatically, that the people, places and events on screen are grounded in something real. Synthetic production erodes that assumption. As AI-generated content grows harder to separate from authentic footage, the credibility of visual media as a whole has come into question, and recent surveys indicate that many people no longer trust their own ability to judge whether an online image or video reflects reality.

The stakes are especially high in CSR communication, where credibility and emotional sincerity are not decorative features but the ground on which persuasion rests. Should audiences read a campaign's emotional appeal as manufactured rather than documented, scepticism may replace the empathy the campaign was reaching for. Yet AI-generated film also

hands NGOs a narrative range they could not previously afford they can now visualise events no camera could capture, a flood before it happens, a future climate scenario, a survivor's inner experience, and do so with a cinematic finish once reserved for well-resourced producers. How this trade-off actually plays out remains poorly understood.

Work on CSR and nonprofit communication has shown that authenticity and emotional appeal shape stakeholder responses, but that literature has mostly taken camera-based, photographic imagery for granted. Research on synthetic media has gone in a different direction, focusing on deception, misinformation and detection rather than on transparent, mission-driven applications. Neither body of work has asked how AI-generated environmental films build empathy through the interplay of visual, auditory and narrative signs, or whether empathic engagement can hold up when images have no indexical link to real people, places and events. Closing that gap calls for an approach concerned with how a film speaks, not only with what it says. This study accordingly takes a semiotic and multimodal perspective to examine how meaning, empathy and credibility are constructed in AI-generated environmental NGO films.

Problem Definition

CSR communication studies have identified authenticity, emotional appeal, and message credibility as central determinants of stakeholder response to corporate and nonprofit social messaging. Overstated or poorly substantiated claims tend to elicit scepticism rather than goodwill (Viererbl & Koch, 2022). Parallel work on CSR reporting has used semiotic approaches to show that a large proportion of CSR discourses have a 'unreal' ontological status when compared with the actual behaviour of the organisation, highlighting how easily visual and textual signs in CSR communications can float free of the content they are supposed to represent (Yekini et al., 2021). What is still under-examined is the reconfiguration of this authenticity problem when the visual material itself is no longer photographic but synthetic.

Research into synthetic media has demonstrated that audiences are increasingly aware of the challenge of distinguishing between AI-created and real images, and that this difficulty is already eroding general trust in audiovisual content (Högemann et al., 2025; Sippy et al., 2024). However, this literature has focused on misinformation, political manipulation and deception, leaving the comparatively benign but no less complex case of mission-driven communication where the organisation's intent is not to deceive, but to evoke legitimate empathy for a real cause through partially or wholly synthetic imagery underexplored. Environmental NGOs increasingly operate in media environments with high social media penetration and growing exposure to generative AI tools. Many have started to experiment with such content, but there has been no study that systematically examines how meaning, emotion and credibility are constructed in these campaigns from a semiotic perspective.

This study thus addresses three interconnected gaps: a theoretical gap, in that semiotic film theory developed for photographically indexical cinema has rarely been applied to synthetic, AI-generated imagery; an empirical gap, in that there is no comparative semiotic account of AI-generated versus conventionally filmed environmental CSR content; and a practical gap, in that NGOs currently lack evidence-based guidance on how to use AI-generated film without undermining the trust that their campaigns depend on.

To bridge these gaps, this study pursues three objectives. The first is to identify the visual, audio and narrative signs used to construct meaning in AI-generated and conventionally filmed environmental CSR campaigns, asking what signs are employed and how they construct meaning. The second is to examine how these signs are organised into narrative and emotional structures intended to elicit empathy, and how narrative structure and emotional cues work together to evoke empathy for the campaign's cause. The third is to compare AI-generated and conventional CSR films in terms of perceived authenticity, credibility and emotional sincerity, asking whether AI-generated visuals strengthen or weaken these qualities relative to conventional footage.

Literature Review

CSR Communication, Authenticity and Empathy

Recent research on CSR communication has identified authenticity and emotional appeal as key determinants of stakeholders' assessment and reaction to social messaging. Several recent studies on emotional congruence in CSR appeals report that how a CSR message is framed shapes the emotion it produces, with gain-framed messages tending to elicit hope and loss-framed messages eliciting guilt, and both emotions going on to shape attitudes toward the cause and, in the case of hope, toward the company itself (Stadlthanner et al., 2022), while other recent work on CSR over-communication finds that audiences can penalise messaging perceived as disproportionate to an organisation's actual social commitment, producing scepticism rather than goodwill (Viererbl & Koch, 2022). This body of work is underpinned by a central premise: CSR communication is only effective to the extent that its emotional and narrative claims are perceived to be genuine, proportionate, and based on real organisational conduct.

Research in the nonprofit sector also emphasises the importance of storytelling in shaping public engagement. Past research has shown that stories about charity can trigger strong emotions, particularly when they show the human effects of a social or environmental problem. Such emotional reactions, including sadness, concern or compassion, may affect the willingness of people to support a cause or to make donations (Merchant et al., 2010). More recently, digital storytelling has also been recognised as an effective approach for fostering empathy and compassion towards individuals, communities and environmental issues that may otherwise feel remote from everyday experience (Ferrari et al., 2022). In this body of research, empathy is typically created by making abstract problems feel personal through the use of identifiable characters, authentic voices and meaningful visual contexts. As AI-generated media gets better at creating these elements synthetically, the big question becomes: can audiences still form the same emotional connection when the faces, voices and environments they see are no longer real but artificially created? This is the central problem of the present study.

Semiotics and Multimodal Analysis of CSR and Cinema.

The gap between CSR claims and CSR substance has been explored through semiotic approaches. Previous research has applied Greimasian narrative semiotics and the semiotic square of veridiction to CSR and sustainability reports to demonstrate that a significant proportion of sampled reports had a 'unreal' ontological status, proposing that semiotic tools can reveal discrepancies between an organisation's narrated self-image and its verifiable

conduct, and that this approach offers a methodological alternative to the predominantly fragmented field of CSR communication research (Yekini et al., 2021). This turns semiotics into not only a descriptive tool for textual analysis but also a way to evaluate the veracity and credibility of the work done by CSR communication.

Within film and visual communication, multimodal discourse analysis based on social semiotics and, in particular, on the tradition of visual grammar, sees images, sound and narrative as interacting semiotic resources that together create meaning rather than as a transparent documentation of reality (Kress & van Leeuwen, 2006). Research employing this framework to study advertisements and promotional film has demonstrated that representational choices (camera angle, gaze, vector composition and the sequencing of narrative and conceptual images) are active in shaping how viewers understand participants and events, and that narrative structuring devices interact with visual choices to produce specific socio-emotional effects on the viewer (Kress & van Leeuwen, 2006). Further socio-semiotic and narratological analysis of advertising narrative shows that emotional and persuasive meaning in moving-image media is a joint construction of visual grammar and story structure rather than of either mode alone (Jabeen & Cheong, 2022). This methodological genealogy of semiotic veracity analysis for the CSR side and multimodal visual grammar for the film side grounds the analytical basis of the present study's approach to AI-generated CSR film.

AI-Generated Visual Media, Trust, and Authenticity

Synthetic media studies have repeatedly shown that AI-generated images and video are becoming more photorealistic faster than audiences can tell them apart from genuine footage. In 2025, a mixed-methods study of human perception of AI-generated images found that viewers had difficulty consistently identifying synthetic content even in non-deceptive contexts such as landscape and architectural imagery (Högemann et al., 2025). A recent systematic review of public attitudes toward AI deepfakes across several European countries found that perceived risks consistently outweighed perceived benefits across every country surveyed, with concerns clustering around eroding institutional trust, disinformation, and the widening detection arms race, and the size of that gap shaped by respondents' age, gender, and income (Hynek et al., 2025).

Survey research in the United Kingdom points in a similar direction: most respondents held onto some baseline trust in online audiovisual content, yet a sizeable minority reported little or no trust in its genuineness, and the majority doubted their own capacity to spot manipulated media (Sippy et al., 2024). Risk has been the dominant frame in this literature, with attention going to misinformation, political deepfakes and fraud. Far less has been written about generative AI put to openly benevolent, non-deceptive communicative ends, CSR and advocacy film among them, where the organisation is transparent (or at least could be) about the synthetic origin of its visuals, and where the point is not to fabricate an event but to dramatise or illustrate a real social condition. The CSR and nonprofit communication literature has yet to take up the question: do the erosion-of-trust dynamics documented in work on deepfakes and misinformation carry over to this more benign use case, and does disclosing the use of AI reduce the credibility problem or simply shift it elsewhere? This study begins to answer that question through close semiotic analysis of actual campaign material.

NGO Digital Communication Capacity and Resource Constraints

In resource-constrained settings such as Malaysia, studies of NGO digital communication identify social media, and Facebook above all, as a central platform for community engagement and advocacy. Uptake is uneven across organisations, though. Programme delivery still takes priority over strategic communication for many NGOs, mainly because the money and staff to handle both simply aren't there (Withaneachi & Nagaraj, 2021). AI-generated content may offer a practical workaround, lower production costs and letting organisations release visual campaigns more frequently. What remains unclear is how environmental NGOs actually fold AI-generated visuals into their CSR storytelling, and how audiences judge the authenticity and emotional credibility of such campaigns. That question matters because environmental communication rests not only on capturing attention but on cultivating trust, empathy and sustained public engagement. This study therefore examines how AI-generated films are used to construct environmental CSR narratives, and how those narratives convey meaning through cinematic signs.

Mediated Suffering And The Construction Of Empathy In NGO Narratives

Empathy has long been a key element of humanitarian and NGO communication, especially as media narratives seek to connect distant audiences to the realities of vulnerable communities. CSR and advocacy films are much more than information. They employ emotive storytelling to transform abstract social issues into personal and relatable human experiences. By visualising individual suffering, voices and lived realities, audiences are called to be moral spectators not just to understand a social problem but to respond to it emotionally.

Scholars of humanitarian communication have argued that images of suffering do not have any intrinsic ethical power, but that their emotional power depends on the way suffering is framed, narrated and contextualised within specific cultural and media environments. Sontag (2003) observes that images of pain and suffering can evoke feelings of compassion, but the power of such images depends largely on the viewer's acceptance of the truth behind the image. Likewise, Chouliaraki (2006) argues that humanitarian media engenders a 'spectatorship of suffering' where visual and narrative techniques construct the viewer as a witness to the experience of others. Visual politics has continued to be a matter of debate with the focus on the fact that representations of human suffering are always located in institutional, technological and ethical contexts that mediate the negotiation of authenticity and empathy (Chouliaraki, 2013).

The rise of AI-generated imagery presents a new challenge to this relationship between representation and empathy. Synthetic images can copy visual signs that have traditionally been associated with authenticity (e.g. emotional facial expressions, realistic environments, cinematic aesthetics), but the human experience being depicted may not have been physically captured by a camera. This raises a huge question for NGO storytelling: can people really feel true empathy when the suffering body is a digital fabrication, even if the social issue it represents is real? But recent debates about AI-generated witnessing media suggest authenticity should not be defined as a technical property of an image, but as a socially negotiated relationship involving evidence, trust, emotional resonance and institutional credibility (Matich et al., 2026).

Christian Metz Film Semiotics and Cinematic Meaning

Film is not simply a reproduction of reality. It generates meaning through a system of visual, auditory, and narrative signs, which is essentially the idea behind Christian Metz's film semiotics: cinema works like a language, producing meaning through the interplay of images, editing patterns, sound, and narrative structure. Language has a grammar; cinema does not. But Metz's point is that cinema still has codes of its own, ones that let audiences make sense of what they are seeing and hearing.

Seen this way, a CSR film's emotional impact depends not just on whether audiences take the events as real, but on how those events are conveyed through cinematic language. Framing, camera movement, facial expressions, sound design, and narrative sequencing all work together as cinematic signs, shaping how viewers read compassion, urgency, and moral responsibility. This fits Metz's argument that meaning in film comes from the interaction of cinematic codes rather than from images alone. The point matters even more now, in the era of AI-generated filmmaking, where synthetic visuals can reproduce the look of realism without any actual photographic recording behind them. Recent work on AI and visual semiotics pushes this further, arguing that synthetic images complicate conventional ideas of authenticity and representation. That is exactly why semiotic analysis is such a useful lens for examining how meaning and emotional engagement get built in AI-generated films.

Indexicality, Visual Realism and AI-Generated Image

Visual studies have long debated how an image relates to the reality it claims to depict. Photography and film have traditionally been tied to the idea of indexicality, the notion that an image carries a physical trace, a causal connection, back to an object or event that existed before the camera captured it. That connection is largely why photographic images have carried cultural authority as evidence of what actually happened.

Generative AI breaks that assumption. It can produce hyper-realistic images with no actual person, place, or event behind them at all. Contemporary research argues that these AI-generated images challenge established notions of photographic truth, mimicking the visual appearance of a photograph without the indexical relationship that camera-based images normally carry (Hausken, 2024; Wasielewski, 2024). Some scholars push back a little on this, arguing that authenticity was never just about physical traces to begin with, since audiences already assess images through broader social, contextual, and interpretative frameworks. Even so, the loss of direct indexical evidence remains a real concern for visual credibility (Ball, 2017; Matich et al., 2026).

This shift creates a particular tension for NGO and CSR films specifically. On one hand, AI-generated film gives organisations more creative freedom, lower production costs, and a way to portray sensitive experiences without putting vulnerable people at risk. On the other, the gap between the image and any lived human experience behind it can erode the ethical ground that humanitarian storytelling has traditionally stood on. The real question, then, is not whether AI-generated images look real, but whether they can carry the emotional truth and moral credibility that genuine empathy depends on.

AI-Generated Visual Narratives and Ethical Issues of Emotional Manipulation

Early coverage of synthetic media focused mostly on its risks: misinformation, political manipulation, deepfakes. Newer scholarship pushes back on that framing, arguing that AI-generated imagery deserves to be studied as a semiotic and creative technology in its own right, one that actively takes part in producing meaning, identity, and emotion. AI images, in other words, are not just technical outputs. They are cultural products, shaped by particular visual conventions, aesthetic choices, and ideological assumptions (Westberg & Kvåle, 2025).

This matters a great deal for CSR and NGO communication, where visual storytelling is usually trying to generate empathy and move people toward action. Immersive, emotionally engineered media can genuinely deepen audience engagement, but it comes with a warning attached: scholars have cautioned that technology built to manufacture emotional closeness can just as easily turn empathy into a controlled persuasive tool rather than a genuine ethical encounter (Schlembach & Clewer, 2021). The wider conversation around AI and CSR raises a related question too: as generative technologies play a bigger role, does AI-assisted social communication still read as an authentic expression of an organisation's values, or does it start to look like a technologically constructed performance of care?

Methodology

Design of the Study

This study uses a qualitative multimethod research design to investigate how AI-generated environmental films evoke empathy construct appeals intended to evoke empathy and how NGO communication practitioners perceive the application of AI-generated storytelling in environmental campaigns. A qualitative approach is deemed appropriate since the study seeks to interpret meanings embedded in cinematic texts and simultaneously explore the practitioners' experiences and reflections on an emerging communication technology. As textual meanings and human views are both integral to the research aims, multiple qualitative techniques provide a more comprehensive and nuanced view of the phenomenon.

The study includes two complementary phases. The first phase involves a semiotic analysis of AI-generated environmental films, investigating how cinematic signs construct environmental meanings and the emotional cues through which the films invite empathic engagement. Three AI-generated environmental short films were analysed. They were selected through purposive sampling because they were publicly identified as AI-generated, was freely accessible online, and used a narrative structure with emotional appeals, which made it suitable for semiotic analysis. Because this phase examines the films as texts, it identifies the strategies through which empathy is invited rather than measuring the empathy audiences actually experience. The second stage is semi-structured interviews with NGO communication practitioners to explore how professionals evaluate the effectiveness, opportunities and ethical implications of AI generated environmental storytelling. The combination of these methods allows the study to compare meanings constructed within the films with the interpretations of practitioners working in environmental communication.

Theoretical Framework

The analytical framework of this study is based on one of the most influential theoretical traditions in film studies, Christian Metz's theory of film semiotics. The semiotic approach to cinema was first outlined by Metz in his seminal essay, *Le cinéma: langue ou langage?* (1964) and developed it further in *Film Language: A Semiotics of the Cinema* (1974). According to Metz (1974), cinema is a system of signs that generates meaning through the interaction of images, sounds, editing techniques, camera movements and narrative structures, rather than through verbal language alone. Metz argues that spectators comprehend films by decoding cinematic signs that work together to produce narrative meaning and emotional responses.

In this respect, the present study explores the use of visual and audiovisual signs in AI-generated environmental films in depicting ecological issues and triggering environmental empathy. Special attention is paid to cinematic aspects such as visual imagery, symbolism, narrative development, editing patterns, camera composition and sound design, as they combine to construct emotional engagement and environmental meaning.

Although originally developed in the structuralist movement in film studies, Metz's framework continues to shape contemporary scholarship. Buckland (2000) extended Metz's work, using cognitive film semiotics to demonstrate how audiences actively interpret cinematic codes while constructing meaning. Similarly, Tröhler and Kirsten (2018) argue that Metz's conceptualisation of cinematic codes continues to offer an important analytical basis for the analysis of contemporary film. In line with this tradition, the present research systematically analyses the visual, auditory and narrative codes to unveil how AI-generated films communicate environmental messages and foster empathy.

Selection of Movies

The films examined here were chosen through purposive sampling, since the research needed information-rich cases capable of yielding meaningful insight into AI-generated environmental storytelling. Four criteria guided the selection. To begin with, each film had to deal explicitly with environmental, ecological or conservation issues. The second requirement was that generative artificial intelligence technologies had either produced the film outright or contributed substantially to its production. Third, the films had to be publicly accessible on open digital platforms, so that the research would remain transparent and replicable. The last criterion concerned analysability: each film needed identifiable narrative structures and cinematic features that semiotic analysis could work with.

Three AI-made environmental films met these criteria: *Crave*, *Earth Memories* and *DRIFT*. Ecological degradation, environmental vulnerability and human-nature relations run through all three, yet each takes a distinct approach to visual style and narrative strategy. That variation lets the study compare different modes of AI-mediated environmental storytelling while holding the thematic ground constant.

Film Analysis Process

Each film functioned as the primary text for semiotic analysis, and the researcher viewed everyone several times to become properly familiar with it. An initial viewing tracked the overall narrative and visual flow. Subsequent viewings went deeper, into recurring visual

motifs, symbolic imagery, cinematic techniques, and the emotional patterns accumulating across the narrative. Repeated viewing of this kind surfaced details that a single pass would have missed.

Several interconnected cinematic elements came under examination: visual imagery, mise-en-scène, narrative development, editing, sound design and symbolic representation. The analysis paid close attention to how these elements combined to communicate ideas about ecological loss, environmental crisis, hope, resilience and the relationship between humans and nature. Working from Christian Metz's film semiotic perspective, the aim was to identify the cinematic codes through which meaning and emotional response are constructed, rather than merely to describe what appeared on screen.

Semi-Structured Interview

Running alongside the semiotic analysis, six NGO communication practitioners with experience in environmental campaigns were recruited through purposive sampling for semi-structured interviews. All came from environmental non-governmental organisations actively engaged in environmental communication, public awareness campaigns or digital media advocacy. Each was required to have experience developing, managing or evaluating environmental communication efforts, together with some familiarity with digital storytelling or emerging media technologies.

A sample of six sits comfortably within the principles of qualitative research, where information richness matters more than statistical representativeness. Guest et al. (2006) found that meaningful thematic patterns tend to surface within the first six to twelve interviews, with basic saturation often reached around the sixth. Malterud et al. (2016) argue along similar lines through their concept of information power: studies built on narrow research questions, specific participant groups and a strong theoretical foundation require fewer participants, since each interview carries greater analytical weight. Given this study's narrow scope, the homogeneity of its participant group and the guidance of Christian Metz's semiotic framework, six participants were judged sufficient to yield meaningful, rich insight into how professionals perceive AI-generated environmental storytelling.

Interviews were conducted either face-to-face or over video call, depending on what worked for each participant, with sessions typically running 45 to 60 minutes. All were audio-recorded and transcribed verbatim for analysis, with participants' informed consent throughout. The interview protocol explored participants' views on using AI-generated environmental films in communication campaigns: how well these films foster emotional engagement and environmental empathy, what opportunities and challenges come with AI-generated content, and how participants think about the ethical issues surrounding AI in environmental storytelling and its possible role in future campaigns.

Data Analysis

The interview transcripts were analysed using Braun and Clarke's (2006; 2021) thematic analysis. Following familiarisation with the data, initial codes were generated and then collated into broader themes that capture participants' perceptions of AI-generated environmental storytelling. The results of the thematic analysis were then interpreted in conjunction with the results of the film semiotic analysis to generate a holistic understanding of the construction of

environmental empathy in AI-generated films and its professional evaluation by these NGO communication practitioners.

Results

Key Findings

Visual Aesthetics of the Hyperreal

All three films, in their use of AI-generated imagery, created stunning visual representations of nature that went beyond conventional photographic realism. The improved visuals increased emotional reactions by displaying the beauty and fragility of the natural environment.

Symbolic Representation

The environmental issues were depicted through symbolic imagery as opposed to explaining facts directly. Disappearing wildlife, polluted oceans, dying forests, and abandoned landscapes were all metaphors for ecological loss, environmental vulnerability and the consequences of human activity.

Emotional Sound Design

Background music, ambient natural sounds and well-timed silences served to enhance emotional involvement. The soundtrack was not only a support to the visuals, it helped to shape feelings of empathy, sadness, hope, and reflection throughout the films.

Narrative Development

The films differed in how they told their stories, but they shared a similar emotional structure, beginning with images of environmental harmony, moving to ecological disruption, and ending with messages of hope, resilience or collective responsibility. The story's development led the audience from emotions to environmental consciousness.

Human-Nature Relationship

Nature is not cast as a passive setting but as an active narrative presence. Wildlife, forests, rivers and oceans were presented as the primary storytellers, urging the audience to see the link between human behaviour and the health of the environment.

Affective Realism

The findings suggest that the persuasive strength of AI-generated environmental films rests less on photographic authenticity than on their capacity to evoke genuine emotional responses. Audiences appear to respond more readily to a film's emotional and symbolic qualities than to whether its images originate in real-world recordings. Seen this way, authenticity takes shape through emotional resonance, symbolic storytelling and audience interpretation rather than through conventional documentary realism.

Although the three films diverged in narrative style and visual presentation, a common intention ran through them: to encourage audiences to reconnect emotionally with the natural environment. In place of factual explanation or documentary-style realism, they communicated environmental issues through symbolic visuals, carefully constructed soundscapes and emotionally driven narratives. These cinematic choices invited audiences to feel environmental problems rather than simply grasp them as facts.

Hyperreal imagery recurred across all three films. Forests, oceans, wildlife and polluted landscapes appeared with heightened visual intensity, yielding scenes that felt more vivid and emotionally charged than everyday reality. Disappearing wildlife, polluted seas, damaged forests and fragmented landscapes operated as visual metaphors for ecological decline and human responsibility rather than as literal representations, images designed to push viewers toward reflecting on the wider consequences of environmental degradation.

Sound design likewise proved powerful in generating empathy. Orchestral music accompanied the visuals, while moments of silence filled with ambient natural sound deepened feelings of sadness, hope and reflection. A shared narrative arc also links the three films: they open with balance in nature, move into ecological disruption and close with messages of resilience, responsibility and hope. A further significant finding concerns the depiction of nature as an active narrative agent. Instead of placing humans at the centre, the films made forests, wildlife, rivers and oceans the principal storytellers, drawing attention to the interconnectedness of humans and their environment. AI-generated though they were, the films achieved high emotional engagement by visualising environmental scenarios that conventional filmmaking would struggle to capture.

Put simply, the findings indicate that AI-created environmental films build empathy through affective realism, an authenticity grounded in emotional resonance, symbolic storytelling, immersive audiovisual experience and audience interpretation rather than in traditional photographic realism. This points to the potential of AI-generated cinema as a powerful medium for environmental communication and CSR storytelling.

Findings: Perceptions of NGO Practitioners towards AI-Generated Environmental Films

The six NGO communication practitioners interviewed generally viewed AI-generated films as a promising communication tool for environmental CSR campaigns. Participants raised several ethical and practical concerns, but most still believed AI could strengthen environmental storytelling by producing content that was more engaging, emotionally appealing, and easier to deliver across digital platforms. At the same time, they were clear that AI should support communication, not replace human creativity, professional judgement, or organisational values. For most participants, how effective AI turned out to be depended largely on how responsibly it was used.

AI: An Assistive, Not A Substitute Technology

A common thread in the interviews was that AI should be seen as a tool that aids communication rather than replaces the work of communication practitioners or creative professionals. Participants acknowledged the potential of AI to ease many aspects of content production but also stressed that meaningful environmental communication still depends on human interpretation, ethical judgement, and strategic planning.

Several practitioners stressed that AI-generated content should never go out without careful review and verification. Environmental campaigns rely heavily on scientific accuracy and public trust, they explained, which makes fact-checking AI-generated material essential before it reaches audiences. As one participant put it, “AI is just a tool. Creativity, ideas, and responsibility still reside with human communicators.” Another argued that communication practitioners need to understand and evaluate AI-generated content themselves before presenting it to the public, since audiences tend to treat NGOs as credible sources of environmental information. Taken together, these views suggest participants did not see AI as a replacement for professional expertise, but as a supporting technology whose value rests on human judgement, ethical responsibility, and careful communication practice.

How AI Is Making Environmental Campaigns More Efficient

Almost all of the participants described the practical benefits of AI in campaign production. AI was considered faster, cheaper and easier to use than traditional video production, especially for NGOs that are often strapped for cash and manpower. “AI allows organisations to produce visual materials, posters, animations and even short videos without having to rely completely on professional production companies,” participants noted. This enables communication teams to be more responsive to relevant environmental issues while engaging the audience with visual content. For several participants, AI is an opportunity to make communication more efficient rather than just a new technology.

Symbolic Storytelling for Deeper Emotional Engagement

Interviews suggested that practitioners were especially attracted to films that used symbolism rather than overt exposition to portray environmental issues. Of the three films analysed, DRIFT was consistently selected as the most emotional. Many people said that it was the visual metaphor in the film, of animal figures made from discarded waste, that was one of the most memorable. The film did not simply show pollution but invited viewers to think about what environmental destruction might ultimately mean for biodiversity and wildlife. Several practitioners said that this symbolic approach allowed the audience to interpret the message for themselves and that it was more memorable than factual presentations alone.

The participants also liked the gradual development of the story and the inclusion of environmental facts at the end of the movie. They felt that the combination of artistic symbolism and factual information worked to balance the emotional involvement and educational value of the film and was particularly appropriate for awareness campaigns targeting adults and young people.

Crave: Visual Stories for Environmental Education

Although participants appreciated DRIFT’s artistic qualities, most considered Crave the more suitable film for children. They did not see the absence of dialogue as a limitation. If anything, participants felt the film’s visual storytelling encouraged discussion between facilitators and young audiences, letting environmental messages be explored through conversation rather than direct explanation.

As the participants reported, children seem to respond best to animated characters and visual action rather than long verbal explanations. The struggles of an animal protagonist were seen as an accessible way to introduce environmental issues, such as habitat destruction, food scarcity and ecosystem balance. However, participants felt that the film would be most effective if accompanied by guided discussion, during which facilitators could explain the environmental issues that the animation represented. In this sense, Crave was seen less as a stand-alone educational product and more as a useful conversation-starter within environmental education programmes.

Cinematic Language Encourages Environmental Empathy

Another interesting finding concerns the relevance of cinematic language in shaping emotional responses. Rarely did participants discuss visuals in isolation. Instead, they often spoke of the interplay of imagery, sound, editing, narration and storytelling.

Earth Memories had fewer overall comments than the other two films but participants liked its realistic visuals and emotional narration. The image of an elephant crying, together with the images of armed hunters, was often used as a symbol of illegal hunting and the vulnerability of endangered wildlife. The participants said that the voiceover aided them in understanding the intended message and the emotional impact of the visuals.

This demonstrates that practitioners aren't just reacting to visual realism. Rather, emotional engagement is the product of the interplay of a number of cinematic elements that work in concert to construct meaning.

Authenticity Is Built Through Trust, Not Just Realism

Perhaps the most important finding is about the participants' sense of authenticity. None of the practitioners expected the AI-generated films to serve as documentary evidence. Instead, they think that audiences are more than happy to engage with synthetic imagery, provided that organisations are transparent, credible and ethically responsible. Participants repeatedly argued that the success of AI-generated environmental communication is less about the 'reality' of the images and more about the trustworthiness and responsible presentation of the message. Human facilitation, factuality, and organisational credibility were felt to be the linchpins in shaping audience acceptance.

Together, these findings suggest that the question of authenticity in AI-generated environmental communication is no longer solely a question of photographic realism. Rather, it is fostered through the use of emotional investment, ethical communication practices, and audience trust. This view provides a strong argument for the affective authenticity view, which holds that it is possible to have meaningful emotional experiences even with synthetic AI-generated imagery.

Discussion

What this research suggests is that the power of AI-produced environmental films rests not merely on technological novelty but, more importantly, on their capacity to communicate environmental issues through emotionally compelling stories. Semiotic analysis showed empathy being constructed through cinematic techniques: symbolism, visual composition, sound and narrative progression. Interviews with NGO communication practitioners revealed

that they read these same elements in much the same way. Consistency across the two methods strengthens the case that AI-generated storytelling may be a valuable communication approach for environmental CSR, with emotional engagement at the centre of the narrative.

Symbolism stands out as one of the clearest patterns in the study. Across the three films, direct explanation was seldom used to convey environmental degradation. Ecological issues instead reached viewers through visual metaphors that left them to arrive at meaning on their own. *DRIFT* illustrates this most sharply, and interview participants consistently named it the most impactful of the three. Animals constructed from waste material were not read as literal figures; participants took them as a warning about a future in which pollution gradually displaces biodiversity. Responses of this kind imply that symbolic storytelling lets audiences engage with environmental issues at a deeper emotional level, since meaning has to be found rather than received.

The results further indicate that realism is not necessarily what drives emotional engagement. The films leaned heavily on hyperreal AI-generated imagery, yet participants rarely questioned the artificiality of what they saw. Their comments turned instead on how the films made them feel and how effectively the stories carried environmental messages. Practitioners responded warmly to the emotional narrative of *Earth Memories*, for instance, and *Crave* came up repeatedly as an effective instructional tool because its dialogue-free storytelling prompted discussion, particularly among children. Emotional coherence, this suggests, may affect audiences more powerfully than photographic realism, especially where cinematic elements combine into a meaningful narrative experience.

How practitioners positioned AI within their own communicative practices proved another notable finding. Rather than worrying that AI might displace human creativity, most participants regarded it as a useful tool for campaign development, one that lowers production costs and lets organisations generate engaging visual content more efficiently. They nonetheless returned again and again to the limits of technology in matters of judgement. Environmental campaigns, participants said, still need people to verify information, interpret complex issues and keep communication ethically responsible. AI, on this view, extends what storytelling can do without replacing the communicators behind it.

Participants' understanding of authenticity in AI-generated environmental films is among the more interesting results. Existing discussions of AI-generated media commonly hold that synthetic images register as less credible because they lack a direct photographic connection to real-world events. The practitioners here saw matters somewhat differently: knowing full well that the films were AI-generated did nothing to dampen their emotional engagement with the stories. Public trust, they argued, depends far more on how NGOs use the technology than on the technology itself. Organisations should disclose their use of AI, keep factual information accurate, and deploy AI to strengthen genuine environmental advocacy rather than to mislead. Authenticity, for these practitioners, is a matter of trust, ethical communication and organisational credibility rather than photographic evidence alone.

Read together, these findings suggest that authenticity in AI-assisted environmental communication extends well beyond the realism of the image. Persuasiveness comes not from convincing audiences that every visual records an actual event, but from communicating environmental issues in ways that feel emotionally meaningful and socially relevant. This aligns with Christian Metz's conception of cinema as a system of signs, in which meaning arises

from the interaction of cinematic codes rather than from any direct correspondence between image and reality. Those codes continue to generate empathy and emotional engagement even when the visuals are synthetically produced. The effectiveness of AI-generated environmental films therefore seems to depend less on photographic realism than on symbolic representation, emotional resonance and the credibility of the organisations delivering the message.

Summary

This paper is exploring on how environmental messages get communicated through AI-generated environmental films, and how NGO communication practitioners make sense of using them in CSR campaigns. Drawing on film semiotic analysis alongside semi-structured interviews, the findings show that AI-generated films can evoke empathy through the combined use of visual symbolism, emotional storytelling, sound design, and narrative structure. The interviews added another layer to this: practitioners generally saw AI as a valuable communication tool, so long as its use stayed grounded in human judgement, ethical responsibility, and accurate environmental information.

The findings also suggest that audiences do not necessarily reject AI-generated films just because they were synthetically produced. Acceptance seems to hinge instead on whether the narrative feels meaningful, emotionally engaging, and relevant to real environmental issues. Authenticity in environmental communication, seen this way, is about more than photographic realism. It comes down to compelling storytelling, emotional connection, and how credible the organisation delivering the message is. Theoretically, this study extends Christian Metz's film semiotics into the domain of generative AI. Metz argued that audiences read films through systems of cinematic signs and codes, and these results suggest that process still holds even when the images come from AI rather than a camera: audiences keep decoding symbols, sounds, editing, and narratives to construct meaning regardless. In other words, cinema's communicative power does not disappear just because AI is involved. It opens up an alternative route to producing cinematic signs, one that can still generate empathy and get people thinking about environmental responsibility.

This study is limited to three AI-generated environmental films and six NGO practitioners, which means it can only offer an early, partial view of how generative AI might be used in future CSR communication. Future work could draw on larger audience samples, compare AI-generated films directly against traditional environmental documentaries, or look at how different levels of AI disclosure affect trust and emotional engagement. Any of these directions would add to our understanding of AI's growing role in environmental communication.

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