

Challenges and Reflections on Environmental Governance of Short-Video-Driven Outdoor Tourism: A Digital Landscape Perspective

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ABSTRACT

Short-video platforms have reshaped how outdoor tourism is imagined, circulated, and practiced. Through algorithmic recommendation, visual storytelling, and emotional mobilization, natural landscapes are increasingly transformed into digital spectacles that stimulate imitation, destination check-ins, and concentrated flows of visitors. This paper examines the environmental governance challenges generated by this mediated form of outdoor tourism from the perspective of digital landscapes. It argues that ecological risks arise not only from the physical intensity of tourism activities but also from the mismatch between media-driven behavioral diffusion and traditional governance systems. Government regulation remains largely organized around territorial administration, platform responsibility is still insufficiently institutionalized, and public participation is often fragmented and symbolic. To address these problems, the study proposes a collaborative governance framework built around multi-stakeholder coordination, platform accountability, ecological risk early warning, and institutionalized public participation. The findings suggest that environmental governance in the digital era should move beyond post-event administrative control toward data-informed, responsibility-based, and ethically embedded coordination among governments, platforms, social organizations, and users.

KEYWORDS

Short-Video Platforms; Digital Landscape; Outdoor Tourism; Environmental Governance; Collaborative Governance; Platform Responsibility.

1. INTRODUCTION

Rapid urbanization, work pressure, and changing lifestyles have increased public demand for outdoor recreation. Nature is often represented as a space for relaxation, healing, and temporary escape from urban routines. At the same time, short-video platforms have become important mediators of outdoor tourism. Their recommendation algorithms and visual formats convert landscapes into easily circulated images, making certain destinations visible, desirable, and imitable.

This process has produced a new form of digital landscape. In such a landscape, natural spaces are not only visited physically but also selected, framed, and circulated through platform logic. Users encounter scenic places through short videos, imitate the displayed routes or poses, and reproduce similar content through check-ins and sharing. Outdoor tourism is therefore increasingly shaped by a chain of viewing, imitation, and reproduction rather than by independent ecological experience[1].

The environmental consequences of this process deserve attention. Media exposure can concentrate visitors in fragile areas within a short period, intensify waste and trampling pressure, and create

management problems that exceed the response capacity of local authorities. The core governance issue is not simply that more people visit natural areas. Rather, the pace and direction of visitor flows are increasingly shaped by digital platforms, while existing governance systems still rely mainly on territorial jurisdiction, scenic-area management, and post-event regulation.

This paper uses the concept of digital landscape to analyze how short-video platforms generate ecological externalities in outdoor tourism and how environmental governance should respond. It focuses on three questions: how media logic reshapes outdoor behavior; why existing governance arrangements become imbalanced; and how a collaborative governance framework can be constructed for the digital era.

2. LITERATURE REVIEW AND ANALYTICAL PERSPECTIVE

Research on mediatized society provides a useful theoretical basis for understanding this issue. Hjarvard argues that media have moved from being external channels of communication to becoming internal components of social institutions and everyday practices[2]. Couldry and Hepp further suggest that media do not merely reflect social reality but participate in constructing it. From this perspective, outdoor tourism is not only a leisure practice but also a mediated social action shaped by visibility, algorithms, and symbolic rewards[3].

Existing studies show that digital media can reorganize public perception and behavioral motivation. Metzler and Garcia note that algorithmic media reshape visibility structures and influence social behavior through selective exposure. In the context of short videos, landscapes are presented through emotionally charged images, music, narration, and platform recommendations[4]. These elements encourage users to regard nature as a visual object that can be consumed, displayed, and reproduced. Related studies on destination videos also show that immersive and narrative video content can strengthen travel intention and destination identification[5].

Environmental communication research has also emphasized the role of media in shaping ecological discourse. Online platforms can increase public attention to environmental issues, but they may also fragment discussion and transform complex ecological problems into episodic and emotional events. In addition, platform algorithms are not neutral technical tools[6]. They influence what becomes visible, which behaviors are rewarded, and how quickly certain practices spread. This gives platforms a quasi-governance role, even when their environmental responsibilities remain unclear[7].

However, existing research has paid more attention to communication effects, user psychology, and tourism marketing than to the environmental governance implications of short-video-driven outdoor behavior[8]. The link between algorithmic visibility, behavioral diffusion, ecological pressure, and institutional responsibility remains insufficiently explained. This paper therefore proposes an analytical perspective centered on the imbalance between media logic and ecological governance logic.

3. BEHAVIORAL LOGIC OF SHORT-VIDEO-DRIVEN OUTDOOR TOURISM

Short-video platforms reshape outdoor behavior through three mechanisms: algorithmic recommendation, visual mobilization, and social imitation. Algorithms identify user preferences and repeatedly recommend content that is likely to attract attention. Visually striking landscapes, unusual routes, and emotionally appealing narratives are more likely to be promoted. As a result, ecological spaces are translated into attention-oriented visual products[9].

Visual mobilization further turns outdoor activities into performative practices. For many users, visiting a destination is no longer only about experiencing nature; it also involves producing shareable

images and gaining social feedback. The value of outdoor activity is partly transferred from ecological experience to online visibility[10]. This shift may weaken environmental sensitivity, because users pay more attention to visual effect, novelty, and social recognition than to carrying capacity, safety, or ecological fragility.

Social imitation accelerates the diffusion of such behavior. When certain places become popular on short-video platforms, users tend to imitate routes, poses, camping practices, or travel formats that have already been validated by platform traffic. This imitation is not random; it is amplified by algorithmic exposure and peer recognition. The result is a rapid concentration of visitors in selected spaces, often before local managers have sufficient information or time to prepare[11].

The environmental risks of this process include waste accumulation, vegetation damage, route congestion, noise, fire risk, and disturbance to wildlife[12]. These risks are especially severe in areas that were not originally designed for high-intensity tourism. Short-video-driven tourism thus creates a gap between digital popularity and ecological capacity. The digital landscape may present nature as accessible and harmless, while obscuring the material limits of the ecosystem.

More importantly, responsibility becomes dispersed. Users may perceive their own actions as minor; platforms may define themselves as information intermediaries; and local governments may lack authority over online dissemination. This produces a governance dilemma in which behavior has a digital source but environmental responsibility is located mainly in physical space.

4. GOVERNANCE IMBALANCE IN THE DIGITAL LANDSCAPE

The first imbalance lies in government regulation. Traditional environmental governance is usually organized according to administrative boundaries, scenic-area rules, permits, inspections, and penalties. These tools are useful for stable and predictable tourism flows, but they are less effective when visitor behavior is rapidly triggered by online content. By the time a destination becomes overloaded, government responses often remain reactive, including temporary closures, on-site controls, or post-event clean-up.

The second imbalance concerns platform responsibility. Short-video platforms influence behavioral choices through recommendation systems, topic ranking, traffic incentives, and content visibility. Although they do not directly organize tourism activities, they participate in producing the conditions under which outdoor behaviors spread. However, platform responsibility is often limited to content compliance, user safety notices, or voluntary guidance. Ecological risk assessment, algorithmic transparency, and responsibility for traffic-induced environmental pressure are not yet fully embedded in platform governance.

The third imbalance appears in public participation. Digital media can mobilize attention quickly, but such attention is often short-lived and symbolic. Users may express concern about environmental damage online while still participating in practices that contribute to ecological pressure. Public participation may therefore remain at the level of likes, reposts, comments, or moral criticism, without being transformed into stable ecological behavior or institutionalized supervision.

These three imbalances jointly produce governance drift. Environmental authority remains mainly in government agencies, but behavioral influence is increasingly exercised by platforms and online communities. The public is highly connected but not necessarily organized. As a result, governance power, behavioral causality, and ecological responsibility no longer correspond to one another. This is the central institutional challenge of environmental governance in the digital landscape.

5. TOWARD COLLABORATIVE GOVERNANCE

To respond to short-video-driven ecological risks, environmental governance should shift from single-centered administrative control to collaborative governance. The goal is not to suppress digital communication, but to embed ecological responsibility into the processes through which outdoor tourism information is produced, distributed, and acted upon.

First, platform accountability should be institutionalized. Platforms should be encouraged or required to identify ecologically sensitive destinations, provide risk warnings, reduce the promotion of unsafe or environmentally harmful content, and cooperate with public authorities when online traffic creates predictable offline pressure. Algorithmic recommendation should include not only traffic and engagement indicators but also ecological risk and public-interest considerations. This requires clearer rules on platform obligations, data responsibility, and environmental communication ethics.

Second, governments and platforms should establish data-based coordination mechanisms. Platforms often possess real-time information about destination popularity, search trends, and user engagement. When used under proper privacy and governance rules, such data can support early warning, visitor-flow prediction, and targeted management. Local governments can then move from reactive regulation to preventive governance, including route guidance, capacity control, temporary service provision, and ecological monitoring.

Third, public participation should be transformed from symbolic expression into practical co-governance. Users should receive clearer guidance on low-impact outdoor behavior, waste disposal, fire prevention, route safety, and respect for fragile ecosystems. Social organizations, outdoor communities, and content creators can help translate ecological norms into accessible communication. Green behavior can also be encouraged through platform labels, visibility incentives, and community-based supervision.

Finally, collaborative governance requires a closed responsibility loop. Governments should define rules and coordinate public interests; platforms should manage algorithmic influence and ecological risk communication; social organizations should provide education and monitoring support; and users should internalize ecological responsibility in their travel behavior. Only when these roles are connected can digital visibility be converted from a source of ecological pressure into a resource for environmental governance.

6. CONCLUSIONS AND FUTURE RESEARCH DIRECTIONS

This paper has examined the environmental governance challenges created by short-video-driven outdoor tourism from the perspective of digital landscapes. It argues that short-video platforms reshape outdoor behavior by increasing the visibility of selected landscapes, encouraging imitation, and transforming nature into a shareable visual object. The resulting ecological risks are not caused solely by individual misconduct or tourism growth, but by the structural mismatch between media-driven behavioral diffusion and traditional governance arrangements.

The study identifies three main governance problems: delayed governmental response, insufficiently defined platform responsibility, and fragmented public participation. These problems indicate that environmental governance in the digital era must address not only physical environmental pressure but also the communicative mechanisms that generate such pressure. The proposed collaborative governance framework emphasizes platform accountability, government-platform data coordination, institutionalized public participation, and the embedding of ecological ethics into digital communication.

This study contributes to environmental governance research by linking mediatized society theory with outdoor tourism governance. It shows that media platforms have become part of the conditions

under which ecological risks are produced and should therefore be considered within governance systems. Future research may further test the relationship between platform exposure and visitor concentration using cross-platform data, examine how algorithmic accountability can be measured, and explore how digital communication can strengthen long-term ecological consciousness rather than only short-term attention.

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