Chapter 14
The Role of Social Media in Communicating Environmental Information From AI-Driven Geospatial Technologies

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ABSTRACT

This research investigates the potential of social media for disseminating environmental information generated by AI-driven geospatial technologies. It explores how these technologies can be leveraged to communicate environmental issues to a broader audience and examines the factors influencing the effectiveness of social media-based communication. Case studies analyze successful implementations of social media for environmental communication, highlighting best practices and lessons learned. The research identifies emerging trends in AI and social media integration, exploring the potential for a more democratized approach to environmental information generation and dissemination. The conclusion emphasizes the critical role of social media in raising public awareness of environmental challenges and fostering informed decision-making.

DOI: 10.4018/979-8-3693-8104-5.ch014

1. INTRODUCTION

The role of social media in communicating environmental information from AI-driven geospatial technologies is becoming more and more important in this era of information and communication technologies. The vast amount of environmental information available daily, hourly, and even minute-by-minute from satellites, sensors, and social media must be processed, filtered, and aggregated. This processed information must be effectively communicated or delivered to the right person at the right time and in the right manner. Understanding and responding to massive, noisy, and uncertain information at the personal level is a challenging task and an ongoing research problem. And this task at the aggregate level addresses multi-I-1.info domain social media networked systems, which can save massive historical archive information from all domains and filter day-to-day requested focused issues for potential situation awareness. (Lamsal et al., 2022).

Due to the availability of inexpensive, portable, and widely distributed devices with Internet connections, social media is emerging as a major source of information and activity representation. Users in hazard-affected locations can more rapidly capture and spread hazard information through social media platforms. Since information dissemination has transnational properties, harmonization of emergency responses may be achievable by capturing and exploiting promptly exchanged information from multiple countries. By processing hazard-related information on social media, it is possible to learn about the disaster event earlier and to understand public reactions to the event. The huge stream of data generated from online social networks during hazard events presents a challenge for automated processing, yet with proper filtering and analysis, extremely valuable information can be extracted from this data (Xie et al., 2018).

1.1. Background and Rationale

In recent years, the landscape of approaches for the communication of environmental issues has diversified through the introduction of new forms of media. There has been a growing concern that the traditional media are not addressing important environmental issues or do so in an inappropriate fashion. Another concern is that the media have given more space to environmental issues, but of a sensationalist kind (Pol et al., 2024). Environmental concerns have gone beyond the borders of traditional media, permeating into the fabric of everyday life through mediated environmental information at a myriad of other levels. Some studies indicate that individuals engage in a variety of new participative roles and now produce environmental content, so that the public is also a player in the environmental information arena. However, the majority of studies are located either in the traditional media