SYNTHETIC MEDIA AS A THREAT TO CRISIS COMMUNICATION: AI-GENERATED VIDEOS, DISINFORMATION, AND ALGORITHMIC AMPLIFICATION IN EMERGENCY SITUATIONS

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ABSTRACT

The development of generative artificial intelligence and its multimodal capabilities—particularly in the domain of producing realistic video content and synthesized speech—constitutes one of the most significant contemporary threats to effective crisis communication. This paper examines the ways in which AI-generated video and audio content function as vectors of disinformation in the context of natural disasters and crisis situations, and analyzes the mechanisms of their algorithmic dissemination across platforms such as TikTok, YouTube, Instagram, and X (Twitter). Adopting a theoretical-analytical approach, and combining a review of relevant academic literature, reports by international organizations, and case studies—including Hurricane Melisa and the associated AI-generated viral content—the paper maps the key risks this phenomenon poses to crisis management. Particular attention is devoted to the psychological mechanisms that render AI-generated visual and auditory content especially persuasive under conditions of heightened anxiety, as well as to institutional and technological responses to these threats. These include synthetic media detection tools, regulatory frameworks such as the EU AI Act and the Digital Services Act, and the C2PA initiative for digital media authenticity verification.

The paper concludes that there is no single technical solution capable of effectively suppressing the spread of AI-generated disinformation in real time, and that a comprehensive approach is required—one that integrates technological tools, regulatory measures, proactive institutional communication, and investment in public digital literacy.

Keywords: generative artificial intelligence, deepfake, crisis communication, disinformation, crisis management