Unraveling the Media Discourse on Generative AI: Themes, Trends, and Sentiment Analysis

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Abstract

The rapid advancement of Generative Artificial Intelligence (GenAI) has led to extensive media coverage, raising questions about its societal impact, ethical concerns, regulatory frameworks, and adoption trends. Despite growing interest, there is a lack of structured research analyzing how media narratives shape public perception of GenAI. This study applies Latent Dirichlet Allocation (LDA), an unsupervised machine learning technique, to identify dominant themes in GenAI-related news articles. By analyzing the evolution of themes over time and conducting sentiment analysis, the study provides insights into how GenAI is framed in public discourse. The results indicate that while ethical concerns and misinformation are often framed negatively, discussions around GenAI's role in education and productivity tend to be positive. The study's findings offer valuable perspectives for policymakers, researchers, and industry stakeholders, helping them understand media influence on AI adoption and regulation.

Keywords: generative AI, topic modeling, media discourse, LDA, sentiment analysis