FRAME-SENTIMENT DYNAMICS AND EVOLUTION IN U.S. CLIMATE NEWS:

SEMI-SUPERVISED MACHINE LEARNING AND PANEL DATA ANALYSIS

Abstract

This study investigates U.S. climate news framing from 1996-2023, utilizing semi-supervised machine learning and panel data analysis. It analyzed articles from *The New York Times* and *The Wall Street Journal* using "guided" Latent Dirichlet Allocation (LDA) topic modeling and sentiment analysis. The study identified a rising trend in the "Institutionalists" and "Bio-environmentalists" frames and a decline in the "Social Greens" frame. Results also showed positive sentiment associated with the "Institutionalists" and "Bio-environmentalists" frames, while negative sentiment was associated with the "Market Liberals" and "Social Greens" frames.