

Decoding Disinformation: A Comprehensive Analysis of Fake News

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Abstract

In the contemporary digital landscape, the proliferation of inaccurate or manipulated news and information has attained a disconcerting magnitude. The dissemination of such misinformation has prompted an examination of causal elements, notably including the concept of citizen-limited rationality. This term denotes the cognitive constraints imposed by a dearth of information, cognitive limitations, and temporal constraints. This study is bifurcated into two primary objectives. Firstly, it aims to delineate the characteristics of fake news through statistical analysis. Secondly, it seeks to discern determinants influencing the propagation of misinformation regarding individuals' awareness of fake news. To accomplish these aims, a comprehensive two-step methodology was implemented. In the initial phase, unstructured texts were extracted from the web pages of prominent fact-checking sites utilizing web scraping techniques for the investigation of fake news. The second phase involved the identification and measurement of determinants in the dissemination of misinformation through structural equation models. Employing a topic-modeling model, the investigation probed whether fake news exhibits recurrent associations of words forming distinct topics. The subsequent analysis delved into the domains and degrees of misinformation, elucidating factors contributing to its dissemination. Common topics within fake news served a dual purpose: firstly, to gauge a latent variable about the extent of misinformation, utilizing topics to chart recurring themes in fake news upon which respondents were invited to articulate their perspectives regarding veracity or falsity; and secondly, to scrutinize, via path analysis with partial least squares structural equation modeling estimation, the variables deemed determinants of the misinformation phenomenon.

Keywords: Fake News, Disinformation, Fact-Checking, Topic Modeling, PLS-SEM.