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Information Preferences of Users in Online Hpv Vaccine Discussions

Dr. Beom Bae , Yong Yi , Chaeun Han , Azaria Lawson

Department of Communication Arts, Georgia Southern University

Department of Applied Artificial Intelligence, Sungkyunkwan University, South Korea

Department of Informatics, Pennsylvania State University, the United States

Department of Psychology, Georgia Southern University

Abstract

This study investigates what types of health information are adopted by information seekers. To examine this question, data from an online question-and-answer community (Reddit) will be analyzed using a quantitative content analysis design. For each selected Human Papillomavirus (HPV) vaccine question, the most upvoted answer will be paired with a randomly selected alternative answer to the same question, producing 1,500 paired comparisons. A theory-driven codebook based on Aristotle's rhetorical appeals will be applied to identify ethos (credibility cues), pathos (emotional appeals), and logos (logical reasoning and evidence). Human coders will analyze 300 answer pairs, with intercoder reliability (e.g., Cohen's kappa > .7) to ensure consistent interpretation of rhetorical categories. The human-coded subset will serve as training data for fine-tuning a ChatGPT-based model for multi-label rhetorical classification. The fine-tuned model will then be used to analyze the full dataset. The integration of AI coding enables scalable analysis of large volumes of user-generated health content while maintaining theory-based measurement. Comparative statistical analyses for paired data will identify rhetorical features that differentiate the most upvoted answers from other answers. Findings will contribute to health communication research by clarifying which persuasive elements are associated with information preference in social Q&A environments and by demonstrating the methodological value of combining human coding with AI-assisted classification.

Keywords: Health Communication; Hpv Vaccination; Persuasion; Social Qa&A; Question and Answer Community