How certain media talk about AI may have everything to do with political ideology

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Credit: Madison Inouye from Pexels

Even as artificial intelligence (AI) becomes embedded into every fabric our daily lives—from language translation to virtual personal assistants—it continues to be a divisive issue. As its reach expands,

Virginia Tech researchers are seeking to understand which sections of society might be more receptive to AI and which sections may be more averse to it.

In the recently published research "Partisan Media Sentiment Toward Artificial Intelligence," authors from the Virginia Tech Pamplin College of Business—Angela Yi, Shreyans Goenka, and Mario Pandelaere—examined the varied reactions to AI by analyzing partisan media sentiment. Their work was published in the journal *Social Psychological and Personality Science*.

The researchers found that articles from liberal-leaning media have a more negative sentiment toward AI than articles from conservative media. In other words, liberal-leaning media tend to be more opposed to AI than conservative-leaning media.

This opposition can be attributed to, according to the findings, liberal-leaning media being more concerned with AI magnifying social biases in society, such as racial, gender, and income disparities, than conservative-leaning media. The researchers also examined how media sentiment toward AI changed after George Floyd's death.

"Since Floyd's death ignited a national conversation about social biases in society, his death heightened social bias concerns in the media," said Yi, a Ph.D. student in the marketing department. "This, in turn, resulted in the media becoming even more negative towards AI in their storytelling."

Implications for policymakers and beyond

According to Goenka and Yi, their findings may have important implications for future political discussions around AI. Because media sentiment can serve as an indicator of public sentiment which, in turn,

can impact policymakers' stances, the partisan media differences observed may subsequently lead to differences in public opinion toward AI.

"Media sentiment is a powerful driver of public opinion, and oftentimes policymakers look toward the media to predict public sentiment on contentious issues," said Yi. "Perhaps the next step in our research is to see how social media conversations surrounding AI change as a function of the partisan differences we see in our paper."

How the data was collected

To examine partisan media sentiment toward AI, the researchers compiled a collection of articles written about AI from several media outlets. The partisan sentiment for each outlet used was determined by using the ratings found on the Media Bias Rating Chart from AllSides, a company that measures the perceived political bias of content on online written news outlets. A mix of liberal-leaning outlets, such as The New York Times and The Washington Post, and more conservative-leaning outlets, such as The Wall Street Journal and the New York Post, were sourced.

From there, the researchers downloaded articles from the selected outlets based on certain criteria, including the usage of specific key terms, such as "algorithm" or "artificial intelligence," as well as a date range from May 2019 through May 2021.

With a dataset of more than 7,500 articles, they performed an emotional tone analysis on each story using an automated text analysis tool. Through this tool, they were able to capture the emotional tone of each article, which is calculated by the difference between the percentage of positive emotion words and the percentage of negative emotion words in a text. This difference is then standardized on a scale of 0 to 100 to

produce the emotional tone measure.

Goenka, assistant professor of marketing, stressed that this research is descriptive rather than prescriptive, and no stance is being taken as to the right way to discuss AI.

"We are not stating whether the liberal media is acting optimally, or the conservative media is acting optimally," he said. "We are just showing that these differences exist in the media sentiment and that these differences are important to quantify, see, and understand."

More information: Angela Yi et al, Partisan Media Sentiment Toward Artificial Intelligence, *Social Psychological and Personality Science* (2023). DOI: 10.1177/19485506231196817

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