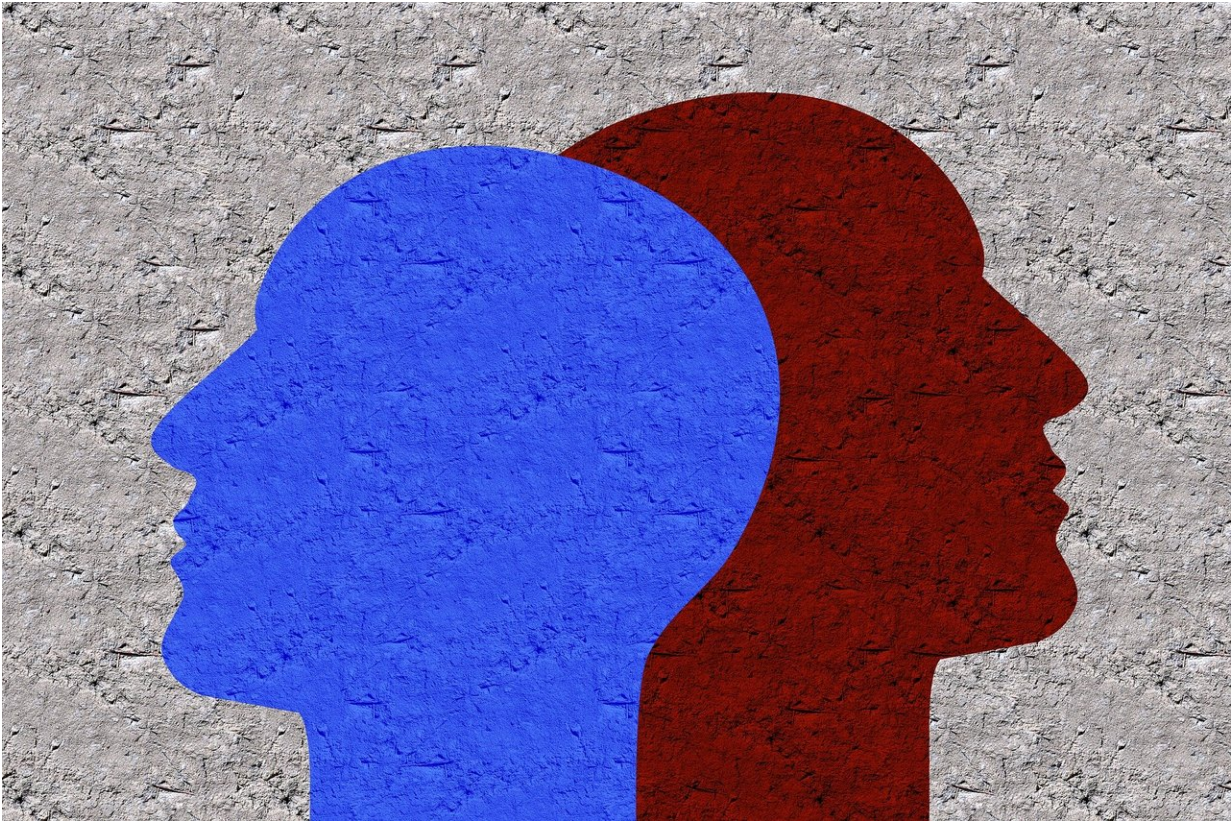


Medical journals' commercial publishing contracts may lead to biased articles

July 27 2020



Credit: CC0 Public Domain

Scientists have long been concerned that the common practice of medical journals accepting commercial payments from pharmaceutical companies may lead to pro-industry bias in published articles. According

to new research at The University of Texas at Austin, scientists were right to be concerned, but they were focusing on the wrong type of payments.

In a new [article](#) published by *PLOS ONE*, researchers reviewed 128,781 articles published in 159 different medical journals for markers of pro-industry bias, evaluating whether accepting [advertising revenue](#), fulfilling reprint contracts or being owned by a large multinational publishing firm made a [journal](#) more likely to publish articles favorable to industry. They found that articles published in journals that accept reprint fees are nearly three times more likely to be written by authors who receive industry payments.

"I was honestly surprised by the findings here," said S. Scott Graham, lead author of the study and assistant professor of rhetoric at UT Austin. ". There's a famous story about one company pulling a multimillion-dollar contract from the *Annals of Internal Medicine* because they didn't like an article published in the journal. All the available literature suggests that ad revenue should be the real concern, but that's not what we found"

A long-standing body of research has found that articles written by authors with financial conflicts of interest are more likely to discuss pharmaceutical products favorably. So Graham and his team built the first-ever machine-learning system and database to track individual conflicts of interest in English-language disclosure statements, deciphered from plain language descriptions such as "Doctor X received funds from Company A and Company B."

"This is, in some ways, a classic digital humanities research problem," said Graham, who attributed the study's success to his background in rhetoric. "I have colleagues in literature and history who train computers to read 10,000 novels or 100,000 documents in an archive. We used the

same kind of techniques to develop a computer system that can read conflicts of interest."

The team found that articles published in journals that accept reprint fees are 2.81 times more likely to be written by authors who receive industry payments. They also found that accepted advertising revenue or being owned by a large publishing firm had no effect on the likelihood that any given article would represent a [conflict](#) of interest for the author.

The researchers also investigated whether there was any relationship between a journal's commercial practices and the number of author conflicts per article, finding that articles published in journals that only accept reprint contracts had 1.52 more conflicts per article on average. And articles published in journals that only make advertising space available had 1.13 fewer conflicts per article on average.

The team also found that articles published in journals owned by large publishing companies had 3.2 more conflicts of interest on average. However, many of these journals also accepted advertising and reprint fees, the researchers said.

"If we're going to make sure that medical journals are publishing the best science available, we need to focus on the commercial relationships that actually have an effect," Graham said. "The issue with reprints also suggests that academics may need to take open access publishing even more seriously."

Provided by University of Texas at Austin

Citation: Medical journals' commercial publishing contracts may lead to biased articles (2020, July 27) retrieved 7 May 2024 from

<https://medicalxpress.com/news/2020-07-medical-journals-commercial-publishing-biased.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.