

We have the BEEFF: A Tool for Teaching Source Credibility Assessment in Classrooms

Introduction

Over the last 50 years, technology has advanced to allow consumers to change how they communicate. Today's interactions are more real-time than ever before, which challenges how users interact with information sources and channels (Zhang & Ghorbani, 2020). For users, access to technology, like social media, can boost the range of information and allow for greater participation in the social sphere. However, with great power comes great responsibility, as users are now more likely to be inundated with misinformation (Matusitz, 2022). In the agriculture industry, the spread of inaccurate information has become all too common (Butler Horton, 2021). Čechmánek (2024) purported a need to combat disinformation and misinformation in agriculture through proactive communication strategies and frameworks. However, other researchers state education in media literacy can stand as the first line of defense in combating the spread of fake news (Scheibenzuber et al., 2021). College students have been identified as a group that tends to believe the information they read online (Loertscher, 2017). Sources frequented by college students, like social media and podcasts, are commonly inundated with fake news (Ali, 2022; Espinosa & San Miguel, 2018). Beauvais (2022) stated it is vital to understand how to spot the presentation of fake news and how and why it is created. Therefore, it is vital to teach college students how to identify fake news and determine credibility in multiple channels like online posts, news articles, and podcasts.

Procedures

To aid in teaching credibility discernment, we developed a five-step evaluation process for a media source: **B**ad language, **E**motional contagion, **E**xtraordinary claims, **F**ollow the money, and **F**act-check (BEEFF; Table 1).

Table 1. Definition of BEEFF Acronym.

Acronym Term	Definition
Bad language	Poor spelling, grammar, or punctuation

Emotional contagion	Miscreants know that messages that trigger strong emotions are shared the most.
Extraordinary Claims	Use of fake social-media accounts: Look out for misleading images and bogus web addresses.
Follow the Money	Think about who stands to gain from you believing extraordinary claims.
Fact Check	Go past the headlines and read a story to the end. If it sounds dubious, search fact-checking websites

We introduced students in an introductory agricultural communications course to BEEFF through a two-day, in-depth lesson. We gave an introductory presentation on fake news and credibility on the first day. By providing information upfront, students were primed to understand why credibility in information sources is vital as well as learn some general guidelines of what to look out for as a consumer of information. After introducing BEEFF, students were given two types of media outlets to practice determining credibility and were asked to implement BEEFF in their credibility evaluations of each outlet type. First, students investigated four (three credible and one false) Facebook posts adapted from Butler Horton (2021). Next, students were encouraged to use BEEFF while fact-checking a news article provided to them. On the second day, we provided students with a third media source, a podcast clip, to determine credibility. The podcast was created using various forms of credible and non-credible information. After evaluating all three media sources, a brief questionnaire was distributed to determine what type of media students preferred for information sources when considering credibility identity. We also sought to understand what knowledge of credibility was gained by students through the activities involving BEEFF.

Preliminary

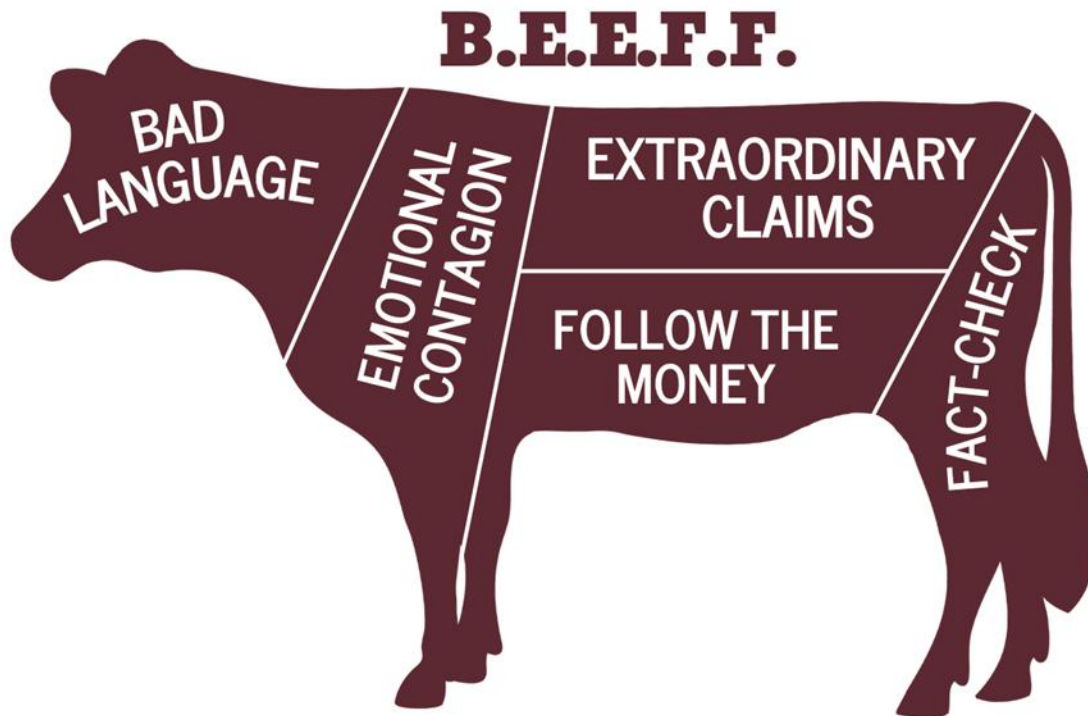
Results The questionnaire revealed that 77% of students preferred evaluating the news article over the social media posts and the podcast, while 11% liked both podcasts and social media posts. The students who preferred news articles stated they “preferred evaluating news articles because of all the information in the article.” When asked what outlet was the most challenging to evaluate, 55% said the podcast, as “podcasts are more challenging because some people in podcasts talk too fast for me to pull information.” Students stated they had to rewind the podcast to hear the information or simply couldn’t form an opinion.

Classroom Assessment

Overall, students found BEEFF to be a valuable resource for spotting non-credible information. When asked for their biggest takeaway, students identified a need to do their own research, and many students stated they would use the BEEFF evaluation process to do so. Students also identified that researching a source takes additional time and effort to identify credibility. During

our introductory presentation, we found that students believed they had previous knowledge of methods to identify fake news but still needed help when using the skills in practice. After the activity, students stated they enjoyed it and deemed it beneficial for understanding how to factcheck information on multiple news sources. To further aid student use of BEEFF, we created a visual for students to keep as a reminder of the steps (Figure 1).

Figure 1. BEEFF Acronym Graphic



Recommendations

We recommend instructors use multiple media sources when asking students to identify credible information. Lastly, we recommend students be given ample time with all media to encourage adequate interaction with each media source type during the activity. Continual practice evaluating credibility in the classroom using BEEFF can help students build the vital skills for information source assessment.

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