



CALIFORNIA SCIENCE & ENGINEERING FAIR 2018 PROJECT SUMMARY

Name(s) Ryan M. Beam	Project Number 38445
Project Title Can a Preventative Social Media User Interface Break 'Fake News'?	
Abstract Objectives/Goals The goal of this project is to determine whether in-product social media features can effectively reduce the spread of "fake news," or deliberately misleading information, on social media platforms. Methods/Materials Amazon Mechanical Turk account (used to acquire national sample group), Google Sheets, Graphing Calculator, Wix Account. Created three mock social media sites, identical in content, and applied a different type of preventative user interface to each, similar to those used by Facebook, Twitter. Tested how frequently disinformation was shared on each. Results 'User Interface 1,' which took no preventative measures and relied on users to check their own biases, was the least effective at mitigating the spread of fake news on the platform. 'User Interface 2,' which provided a Facebook-style warning icon on misleading posts, managed to keep fake news articles from going 'viral,' as they did on the UI 1, but failed to overcome confirmation bias. 'User Interface 3,' which implemented a Twitter-style sensitive content disclaimer overlaying misleading posts, most effectively kept individuals from sharing "fake news" articles on the platform. Conclusions/Discussion These results suggest that the most effective technique for mitigating the spread of fake news is to deliberately hide offending information. This is an expected result, and alongside it being a logistically daunting task to selectively censor millions of social media posts, the morality of implementing such an interface would certainly be debatable. The project does, however, reveal a more workable solution to the issue: while UI 2 may not have been as effective as UI 3 at keeping fake news articles from being shared, it was consistently as effective as UI 3 at keeping fake news articles from going viral. In other words, UI 2 allowed fake news articles to become slightly more popular than UI 3, but both consistently kept disinformation from breaching the popularity threshold and "going viral." Seeing as "fake news" articles are most dangerous when they reach high levels of popularity, it seems that UI 2's approach of Warning Icons, like the type Facebook implemented from 2016-2017, are sufficiently effective at mitigating the spread of fake news.	
Summary Statement I examined whether in-product social media features can sufficiently deter individuals from sharing "fake news" online.	
Help Received None. I designed, built, and performed the experiment myself.	