Fake News Detection

A Problem and a Solution

The Problem

The Washington Post

Democracy Dies in Darkness

Opinion: Facebook admits mistake in flagging satire about CNN spinning the news with a washing machine

The Problem

The Babylon Bee

U.S. Worldviews

CNN Purchases Industrial-Sized Washing Machine To Spin News Before Publication

March 1st, 2018 - BabylonBee.com

147.6k Shares 114.1k SHARE 15.3k SHARE SHARE

Why worry?

user satisfaction

credibility

money

Why worry?

THE CONVERSATION
Too many people think satirical news is real

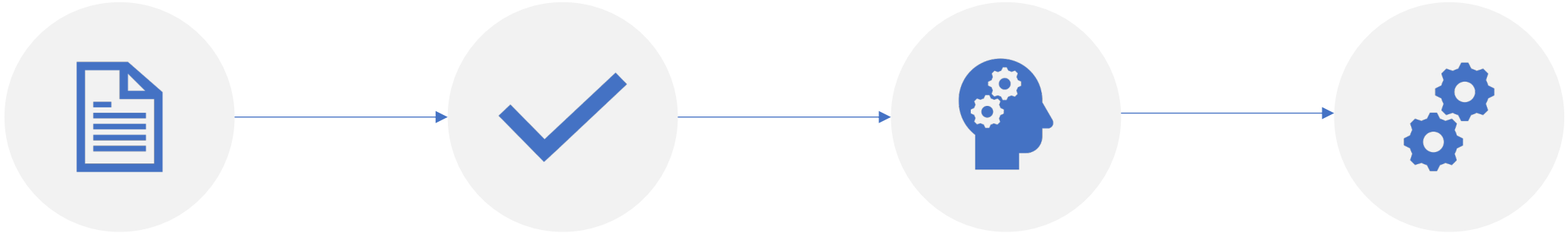
Why worry?

15%
Republicans believed
Babylon Bee articles

13%
Democrats believed
Onion articles

The Solution

Methodology



collect data

fact check

NLP

build model

Supporting Insights

There are more posts with no factual content than fake news on political pages

11.9%

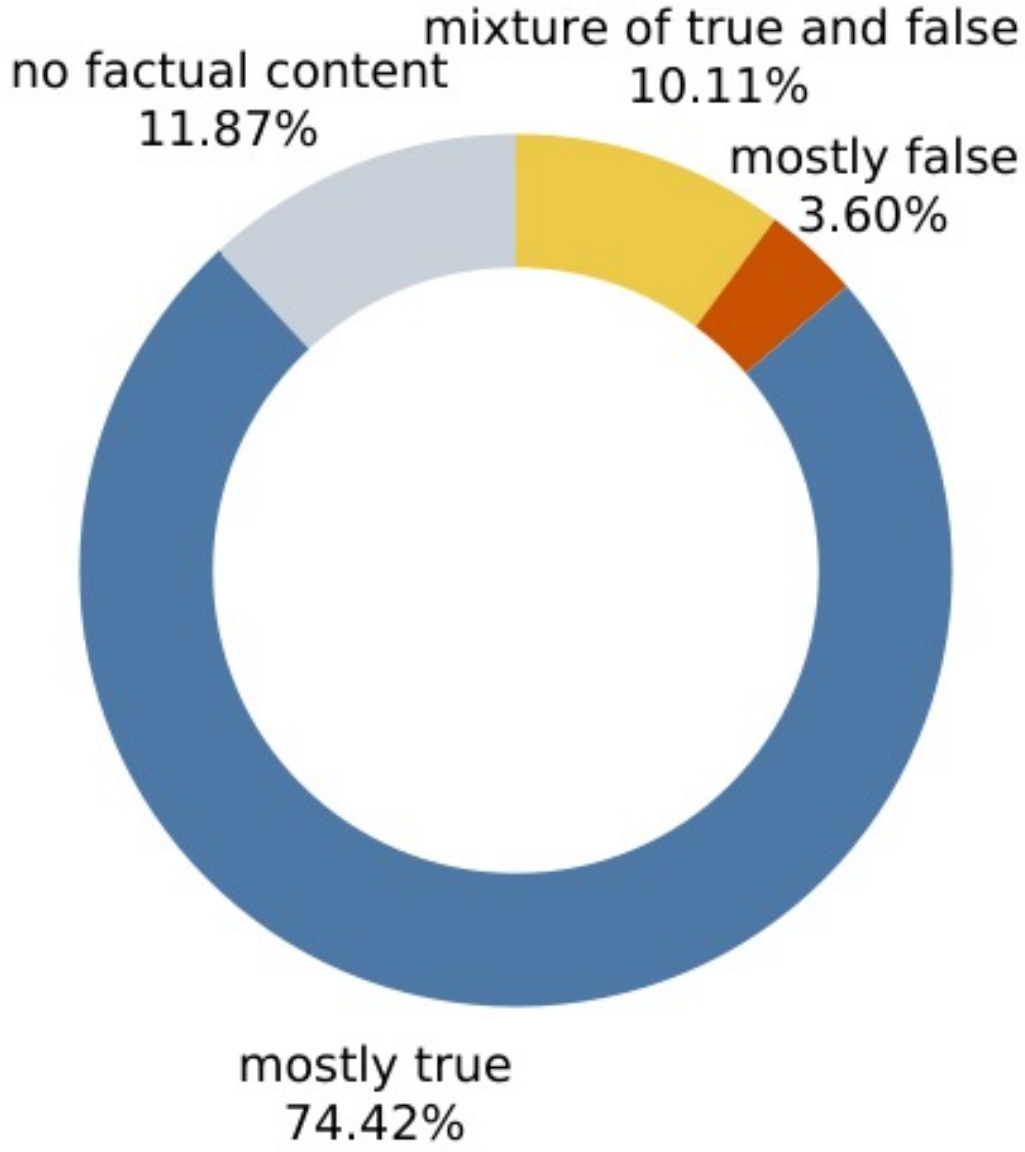
no factual content

3.6%

mostly false

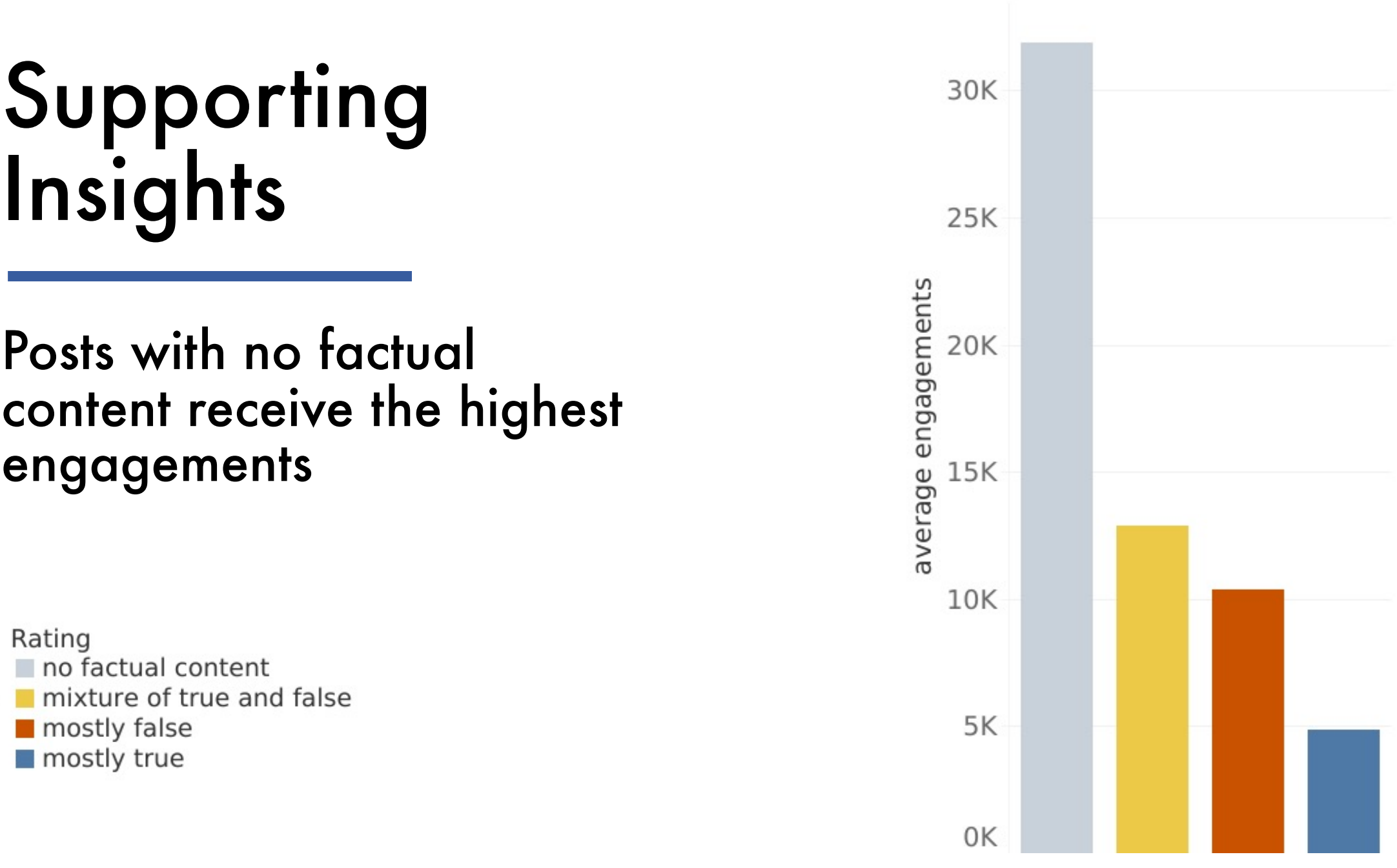
Supporting Insights

There are more posts with no factual content than fake news on political pages



Supporting Insights

Posts with no factual content receive the highest engagements



Helpful Insights

Partisan media pages share more posts with no factual content

24.6%
left

14.4%
right

4.5%
mainstream

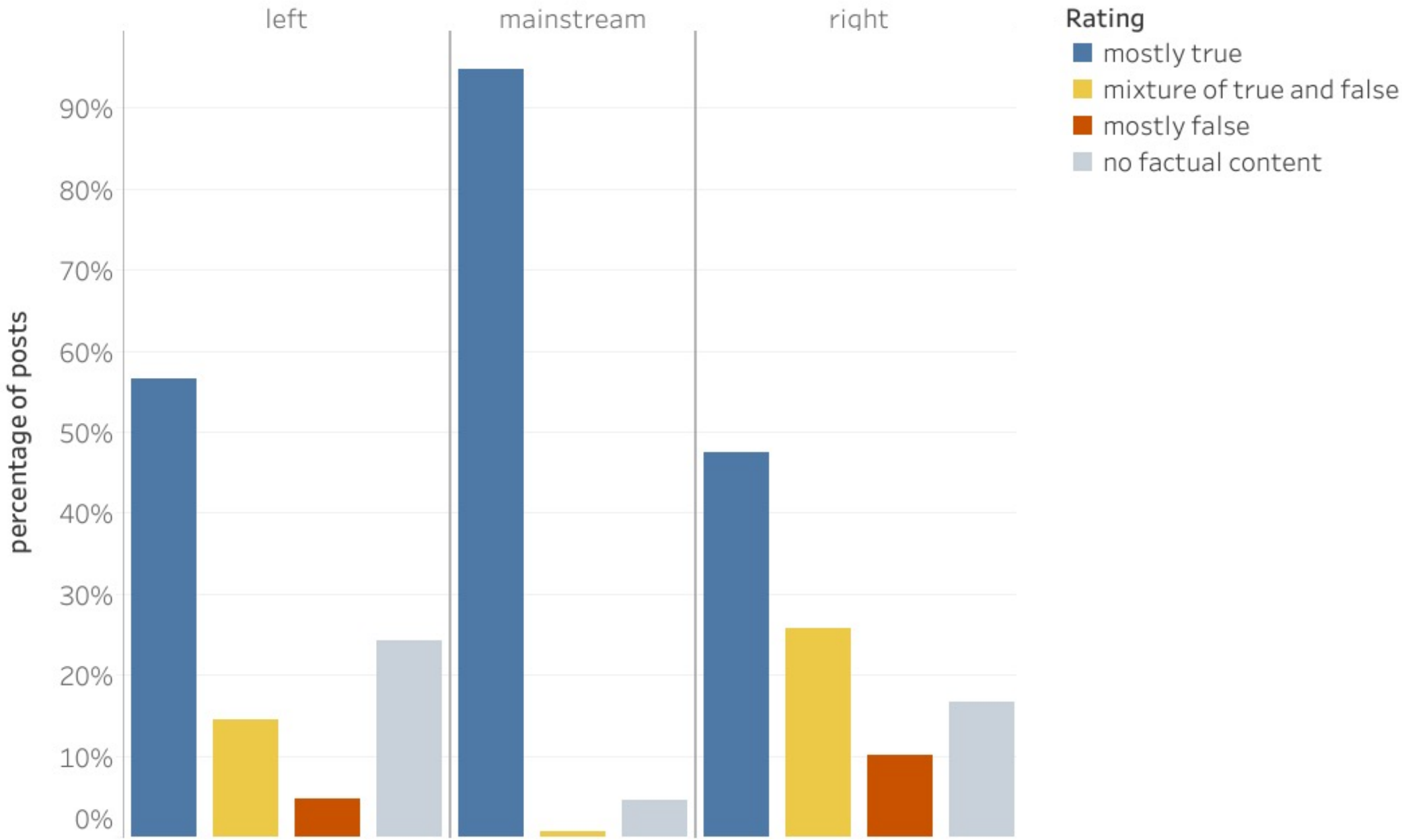
Helpful Insights

Partisan media pages also share more posts with fake news

12.3%
right

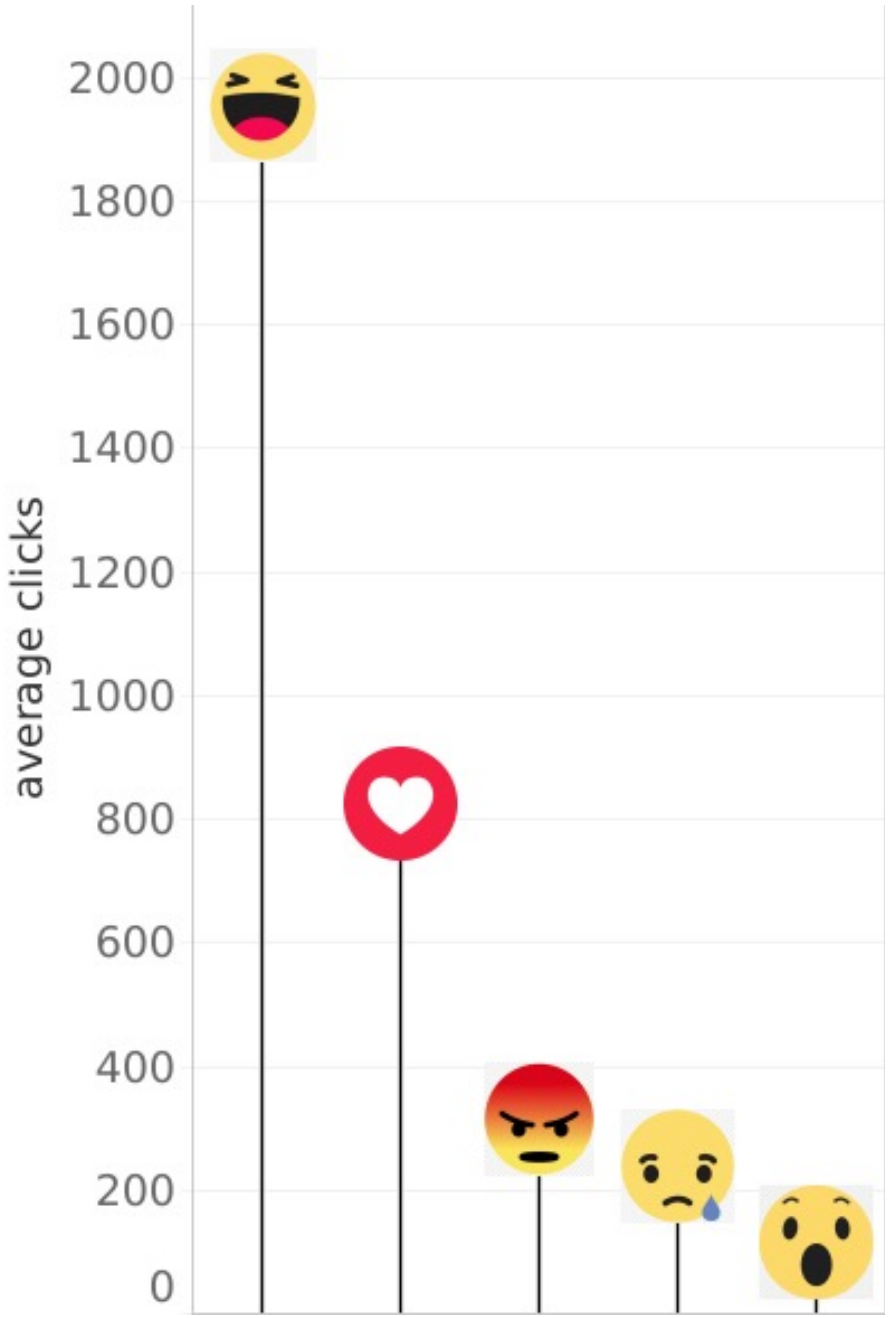
4.7%
left

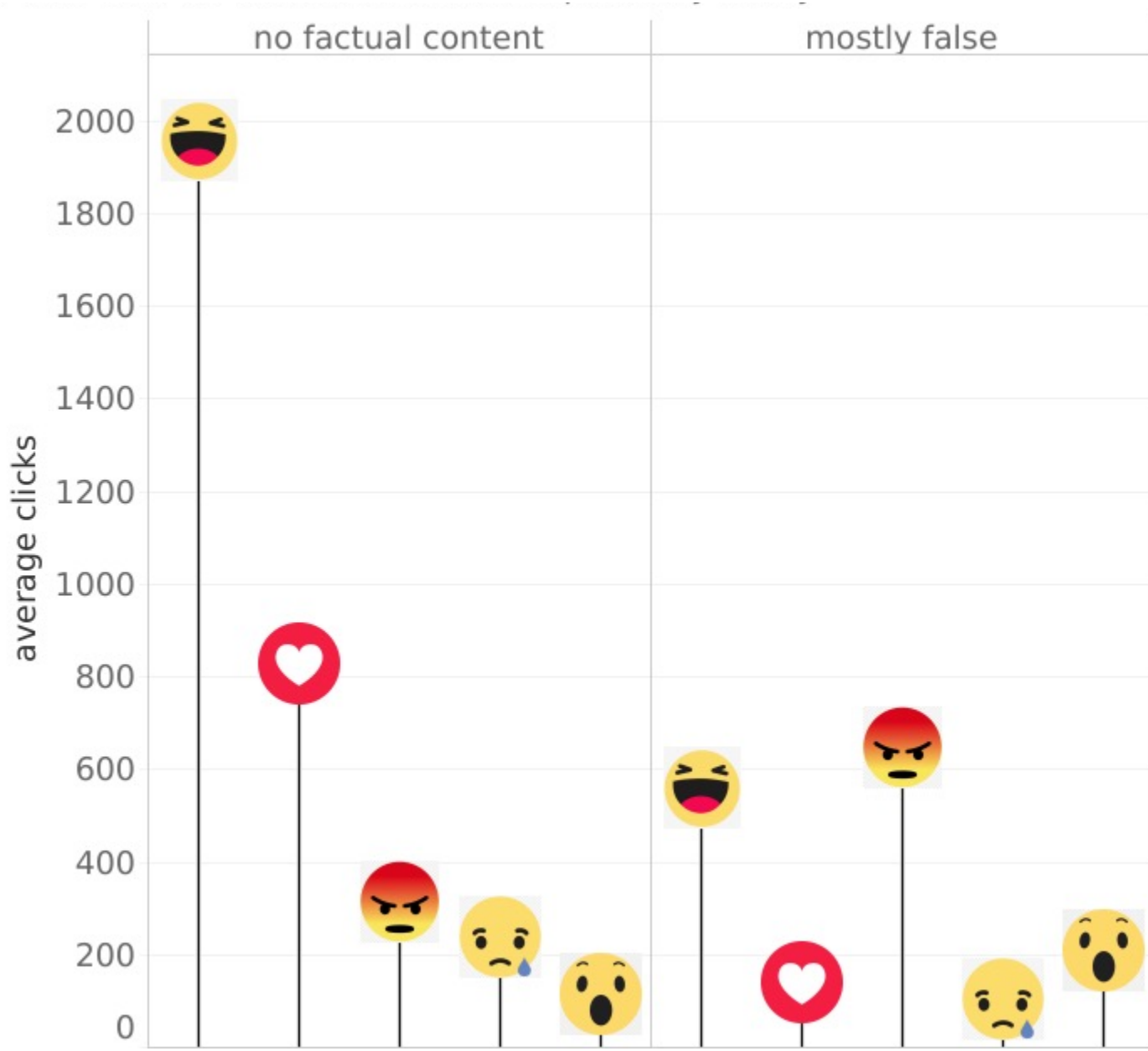
0.0%
mainstream


left
mainstream
right
Rating
mostly true
mixture of true and false
mostly false
no factual content
percentage of posts
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%

Helpful Insights

Most posts with no factual content are likely satirical or comedic




no factual content
mostly false
average clicks
2000
1800
1600
1400
1200
1000
800
600
400
200
0

Conclusion

There are more posts with no factual content than fake news

Posts with no factual content receive the highest engagements

Most posts with no factual content are likely comedic

Appendix

Truth Ratings

- **“Mostly True**: The post and any related link or image are based on factual information and portray it accurately. This lets them interpret the event/info in their own way, so long as they do not misrepresent events, numbers, quotes, reactions, etc., or make information up. This rating does not allow for unsupported speculation or claims.
- **Mixture of True and False**: Some elements of the information are factually accurate, but some elements or claims are not. This rating should be used when speculation or unfounded claims are mixed with real events, numbers, quotes, etc., or when the headline of the link being shared makes a false claim but the text of the story is largely accurate. It should also only be used when the unsupported or false information is roughly equal to the accurate information in the post or link. Finally, use this rating for news articles that are based on unconfirmed information.
- **Mostly False**: Most or all of the information in the post or in the link being shared is inaccurate. This should also be used when the central claim being made is false.
- **No Factual Content**: This rating is used for posts that are pure opinion, comics, satire, or any other posts that do not make a factual claim. This is also the category to use for posts that are of the “Like this if you think…” variety.”

Facebook pages

- Left:
  - Addicting Info
  - Occupy Democrats
  - The Other 98%
- Right:
  - Eagle Rising
  - Freedom Daily
  - Right Wing News
- Mainstream
  - ABC News Politics
  - CNN Politics
  - Politico

"All nine pages have earned the coveted verified blue checkmark from Facebook, which gives them an additional layer of credibility on the platform."