Self Promotion in US Congressional Tweets

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Self-promotion is an act of presenting self as **competent** (Jones and Pittman, 1982)

Motivation

Self-promotion matters for career advancement.
It is an important impression management strategy
    Self-promotion + ingratiation
        -> better interview evaluation

Women self-promote less than men due to gender stereotypes

A particular dilemma for women politicians - their job required them to self-promote, but doing so may have risked losing likeability and hurt election chances (Okimoto and Brescoll, 2010)

Can social media help close the gender gap in self-promotion?

Marginalized groups such as women politicians may gain more control in impression management strategies by directly interacting with constituents on social media platforms like Twitter.

Research Goal

This study aims to examine whether a gender gap in self-promotion exists among Congressional tweets.

We seek answers to the following research questions:

1. To what extent can computers identify self-promotion tweets from Congress people?

2. Who performed more self-promotion on Twitter, men or women?

Research Method

1. Annotated a corpus of 4,000 tweets as self-promoting or not
2. Used the annotated corpus to fine-tune a BERT model to identify self-promoting tweets
3. Used the model to examine 2 million tweets by Congress members from July 2017 to March 2021
4. Ran a mixed-effects regression model to investigate the gender gap in self-promotion

Annotated corpus: Common types of self-promotion tweets
- Tweet about events featuring self, e.g. public speeches
- Tweet about work progress and accomplishments, e.g. introducing or passing bills, chairing a committee
- Tweet about endorsements and awards

Performance of the fine-tuned BERT model

| Self-promotion	Precision	Recall	F1	Support
no	0.948	0.951	0.950	3089
yes	0.834	0.825	0.829	914
accuracy			0.923	
macro average	0.891	0.888	0.890	

Model interpretation (by running LIME on 5000 tweets)

Content words related to expressing self-promotion: *bill, legislation, Tune, introduced, Act, proud, honored, bipartisan, joining, live*

The context in which the above words occur:
- *I am proud to introduce / cosponsor / support / vote for a [bipartisan] bill / legislation*
- *Be sure to tune in / I'm live now / I'm hosting a virtual town hall*
- *I'm honored to have received / earned / be recognized by*

Apply the BERT model to 2 million tweets
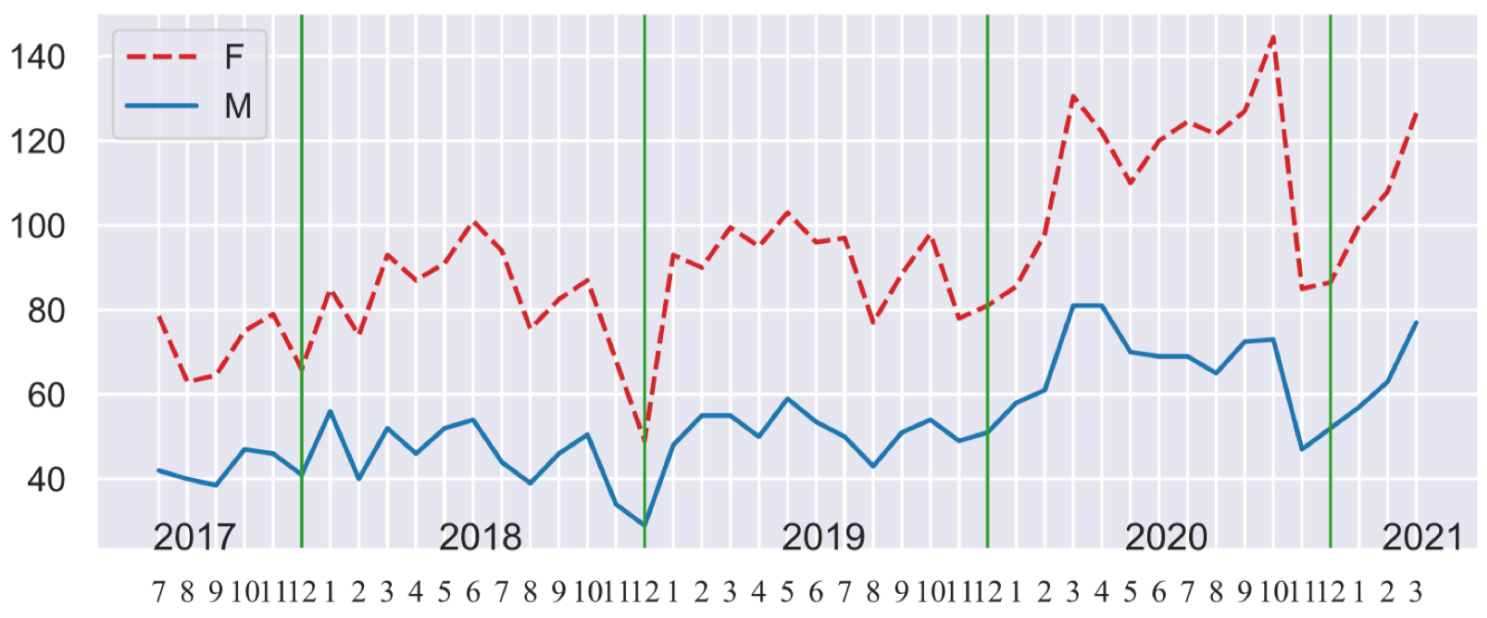
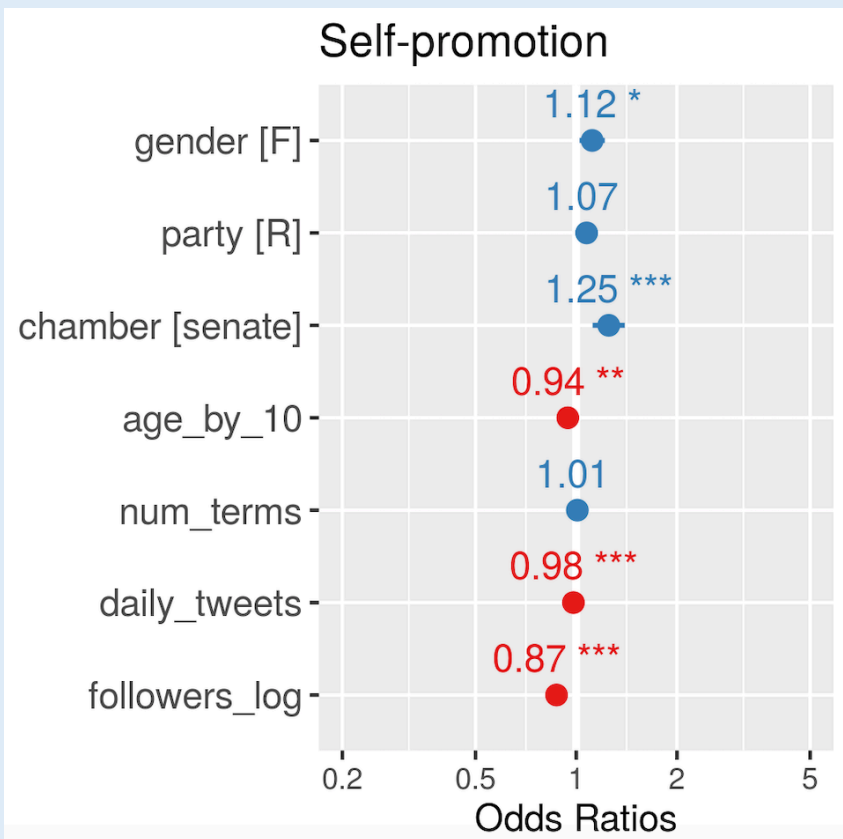### Mixed-effects Regression analysis

```
self_promotion ~
    gender           // M, F
  + party            // D, R
  + chamber          // house, senate
  + age              // numerical
  + num_terms        // numerical
  + daily_tweets     // numerical
  + followers_log    // numerical
  + (1 | tweet_author)  // random effect
  + (1 | tweet_date)    // random effect
```

Results

Women Congress members did more self-promotion Than men on Twitter

Women consistently performed more self-promotion than men over the time