

# Nasty, Brutish, and Short: What Makes Election News Popular on Twitter?

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## Abstract

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## Introduction

In the changing landscape of both journalism and politics, social media is playing an increasingly large role in mobilizing and spreading information to citizens. A Pew Research survey from August 2015 showed that nearly two-thirds of adults in the U.S. who are on Twitter use the platform to get news (?). During the 2016 election year, the New York Times published an article estimating a 2 billion-dollar advantage in free media, including social media, for Donald Trump, all of which has no small impact on the messages broadcast to voters [13].

Although social media messages have less ability to be carefully controlled in comparison to paid advertisements, they also have the potential to reach a wider audience. Sentiments echoed by one potential voter now have the ability to be broadcast and spread to millions of others in a real-time, public sphere.

The popularity of sharing articles on social media also marks an important shift in the role of the news consumer from armchair reader to information propagator. Whereas news used to be broadcast to the reader, now each reader has the potential to broadcast stories to his or her own audience. Sharing a story requires a level of interest and activation on the part of the reader beyond simply reading a story; yet often, this trigger is predictably emotional in nature. In a 2011 study of the New York Times “most emailed list”, Berger and Milkman found that the potential for a news story to go viral is partially driven by physiological arousal, defined as “an excitatory state of sensory alertness, mobilization, or energy” [Milkman 7].

## The (Short) Attention Economy

At the same time that social media has the power to create a flood of free advertising and media for political candidates, the abundance of information on the web has created

new challenges and questions about the kind of content being processed by readers. This paradox— between the ease of accessibility to information and the increasingly limited bandwidth of consumers— is described as one of the challenges of being in an *attention economy* (?). Moreover, high-impact events like the presidential elections especially intensifies this effect— about 60 % of Americans reported feeling exhausted by media coverage of the elections in July of 2016 (?). To explore the effects of the attention economy on the reading of political news, we examine **story length** and how it relates to sharing popularity in the analysis to follow.

## Negativity in Politics and the Internet

In addition, the option of anonymity and pseudo-anonymity on a social network like Twitter (along with other traits of Internet communication), is theorized to contribute to increased negative and hostile behavior, potentially increasing tension for the already-fraught subject of politics. This phenomenon, is coined as the *online disinhibition effect* (?).

In Berger and Milkman's study of story virality, it was found that *positive* content was more likely to be shared than negative content— against conventional belief (?). Political news, however, is a unique category of news, and this election in particular— where one-in-four Americans report disliking the presidential candidates— appears to have a negative overtone.

To compare the sharing of election news stories versus patterns of general virality in the news, and to examine the extent in which negative sentiment is popular, we calculate the *negativity* of stories, and how that relates to Twitter behavior.

We also examine the effects of the degree of combined emotionality in the content and how that relates to Twitter shares, to see if either more positive or more negative content is more likely to be shared overall than content that ranks low in emotionality. Although positive content was found to be more popular than negative content in the sharing of stories, both highly positive and highly negative content was more likely to become viral, and we expect the same to hold for political news (?).

## Hypotheses

We focus on three key aspects: length, emotionality, and positivity of political news content. We hypothesize the follow-

ing behavior in our dataset of stories and tweets:

- **H1:** Story length has a *negative* correlation with Twitter shares, due to the effects of the Internet attention economy and overexposure to political media (?).
- **H2:** Emotionality has a *positive* correlation with Twitter shares, consistent for viral content in general (?).
- **H3:** Positivity has a *negative* correlation with Twitter shares, due to the nature of political news and contrary to generalized findings (?).

For each of these three independent variables (story length, emotionality, positivity) we repeat analyses across three views of the data: first, the entire dataset; then, by political candidate followed amongst users who follow only one candidate; and finally, by the number of political candidates followed (degree of political engagement), to look for differences amongst different populations of political tweeters.

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\usepackage{courier}
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area)
}
%%
% Section Numbers
% Uncomment if you want to use section numbers
% and change the 0 to a 1 or 2
% \setcounter{secnumdepth}{0}
%%
% Title, Author, and Address Information
\title{Title}
\author{Author 1 \and Author 2\and
Address line\and
Address line\and
\And
Author 3\and
Address line\and
Address line}
%%
% Body of Paper Begins
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\AND  
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\And  
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Clancey, W. J. 1983b. Communication, Simulation, and Intelligent Agents: Implications of Personal Intelligent Machines for Medical Education. In *Proceedings of the Eighth International Joint Conference on Artificial Intelligence*, 556–560. Menlo Park, Calif.: International Joint Conferences on Artificial Intelligence, Inc.

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Clancey, W. J. 1986a. The Engineering of Qualitative Models. Forthcoming.

## Producing Reliable PDF Documents with L<sup>A</sup>T<sub>E</sub>X

Generally speaking, PDF files are platform independent and accessible to everyone. When creating a paper for a proceedings or publication in which many PDF documents must be merged and then printed on high-resolution PostScript RIPs, several requirements must be met that are not normally of concern. Thus to ensure that your paper will look like it does when printed on your own machine, you must take several precautions:

- Use type 1 fonts (not type 3 fonts)
- Use only standard Times, Nimbus, and CMR font packages (not fonts like F3 or fonts with tildes in the names or fonts—other than Computer Modern—that are created for specific point sizes, like Times~19) or fonts with strange combinations of numbers and letters
- Embed all fonts when producing the PDF
- Do not use the [T1]fontenc package (install the CM super fonts package instead)

## Creating Output Using PDFL<sup>A</sup>T<sub>E</sub>X Is Required

By using the PDFL<sup>A</sup>T<sub>E</sub>X program instead of straight L<sup>A</sup>T<sub>E</sub>X or T<sub>E</sub>X, you will probably avoid the type 3 font problem altogether (unless you use a package that calls for metafont). PDFL<sup>A</sup>T<sub>E</sub>X enables you to create a PDF document directly

from  $\LaTeX$  source. The one requirement of this software is that all your graphics and images must be available in a format that PDF $\LaTeX$  understands (normally PDF).

PDF $\LaTeX$ 's default is to create documents with type 1 fonts. If you find that it is not doing so in your case, it is likely that one or more fonts are missing from your system or are not in a path that is known to PDF $\LaTeX$ .

**dvipdf Script** Scripts such as dvipdf which ostensibly bypass the Postscript intermediary should not be used since they generally do not instruct dvips to use the config.pdf file.

**dvipdfm** Do not use this dvi-PDF conversion package.

### Ghostscript

$\LaTeX$  users should not use GhostScript to create their PDFs.

### Graphics

If you are still finding type 3 fonts in your PDF file, look at your graphics!  $\LaTeX$  users should check all their imported graphics files as well for font problems.

### Proofreading Your PDF

Please check all the pages of your PDF file. Is the page size A4? Are there any type 3, Identity-H, or CID fonts? Are all the fonts embedded? Are there any areas where equations or figures run into the margins? Did you include all your figures? Did you follow mixed case capitalization rules for your title? Did you include a copyright notice? Do any of the pages scroll slowly (because the graphics draw slowly on the page)? Are URLs underlined and in color? You will need to fix these common errors before submitting your file.

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### Additional Resources

$\LaTeX$  is a difficult program to master. If you've used that software, and this document didn't help or some items were not explained clearly, we recommend you read Michael Shell's excellent document (testflow doc.txt V1.0a 2002/08/13) about obtaining correct PS/PDF output on  $\LaTeX$  systems. (It was written for another purpose, but it has general application as well). It is available at [www.ctan.org](http://www.ctan.org) in the tex-archive.

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Thank you for reading these instructions carefully. We look forward to receiving your electronic files!