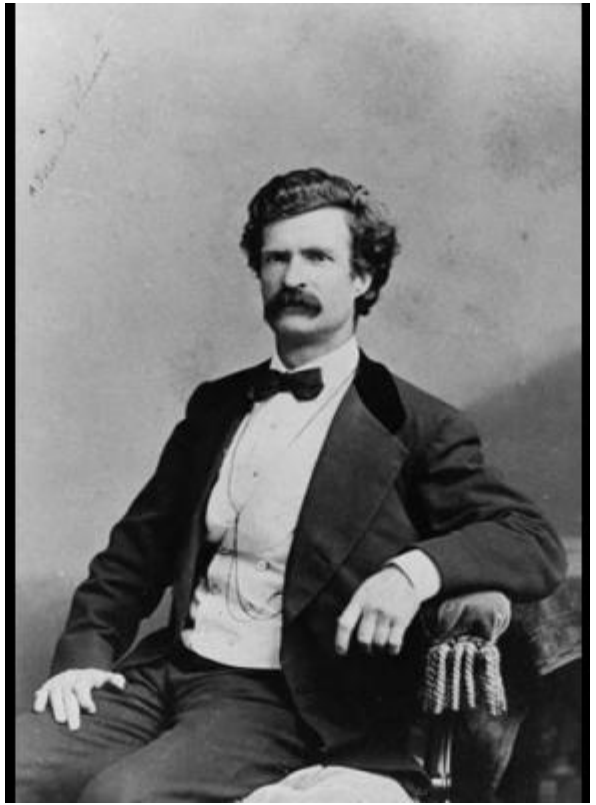
"New Study Finds 85% Of Americans Don't Know All The Dance Moves To National Anthem":

Building a supervised satirical article classifier

Natalie Hanigan
July 17, 2017

What's satire and who's this old-timer?



Why bother?

Gaffe #1

By the time Fleming deleted his status, it was too late — it had already been noticed.

Congressman links to Onion story

By MACKENZIE WEINGER | 02/06/2012 01:57 PM EST | Updated 02/07/2012 11:27 AM EST

Share on Facebook Share on Twitter

Rep. John Fleming has deleted his Facebook post linking to an article in The Onion about a fictional Planned Parenthood "Abortionplex."

In a Facebook status on Friday, the Louisiana Republican alerted his followers to The Onion's May 18, 2011 article, " Planned Parenthood Opens $8 Billion Abortionplex" and wrote "More on Planned Parenthood, abortion by the wholesale." Fleming's spokesman Doug Sachtleben confirmed to POLITICO the post has since been removed from the congressman's Facebook page and said the office had no further comment.

Gaffe #2

One giant slip in Bangladesh news

Two Bangladeshi newspapers have apologised after publishing an article taken from a satirical US website which claimed the Moon landings were faked.

Armstrong did not say the hoax had been "one giant lie" for mankind

The Daily Manab Zamin said US astronaut Neil Armstrong had shocked a news conference by saying he now knew it had been an "elaborate hoax".

Neither they nor the New Nation, which later picked up the story, realised the Onion was not a genuine news site.

Both have now apologised to their readers for not checking the story.

"We thought it was true so we printed it without checking," associate editor Hasanuzzuman Khan told the AFP news agency.

"We didn't know the Onion was not a real news site."

Gaffe #3

The Onion's Sexiest Man Alive for 2012

LOL oops.

#fakenews, amirite?

Not quite.

Satirical News

Usually has the intention of making social commentary

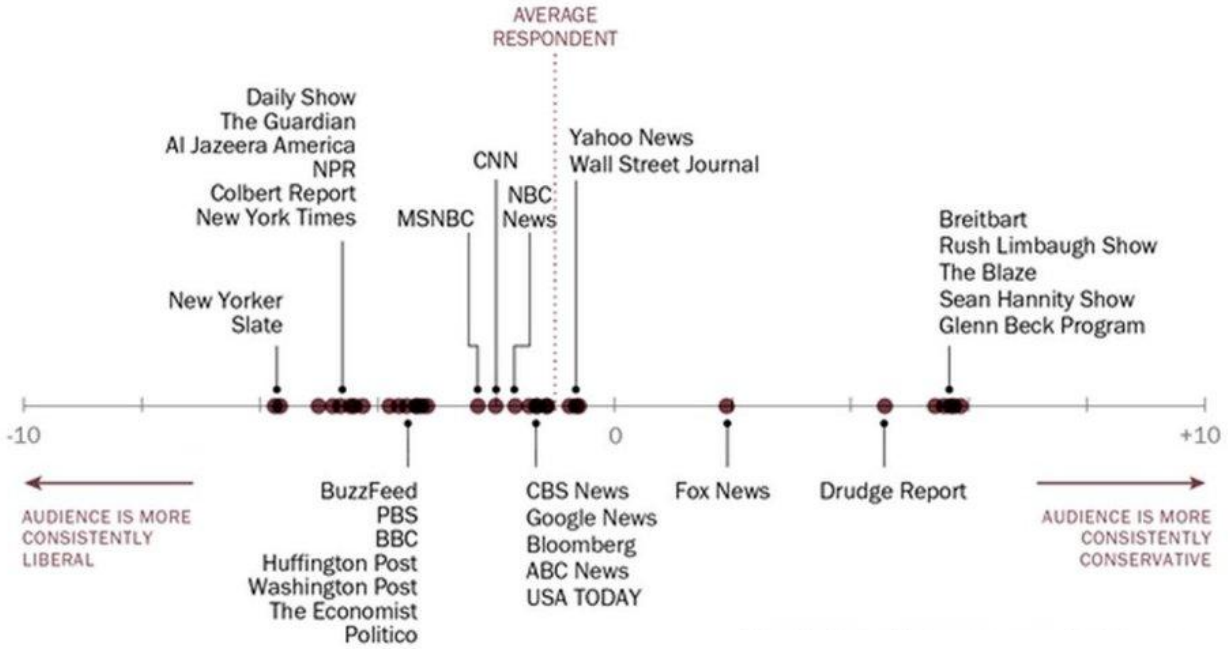
#irony
#deadpan-humor
#sarcasm

Fake News

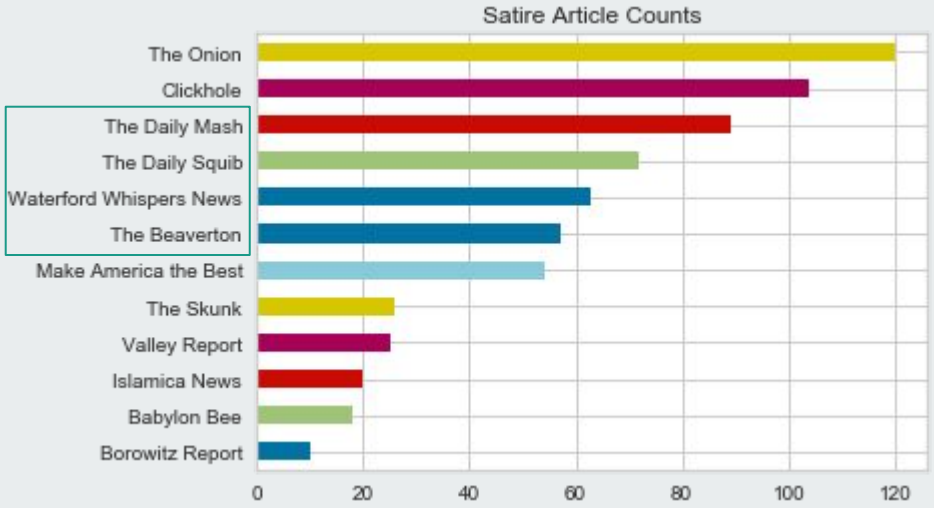
Purposely misleads readers with a specific [political/financial] agenda

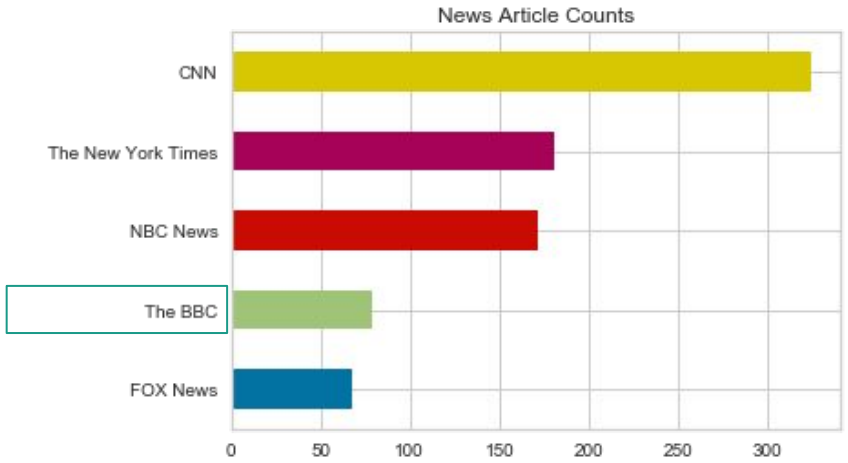
#hoaxes
#disinformation
#propaganda

Ideological Placement of Each Source's Audience



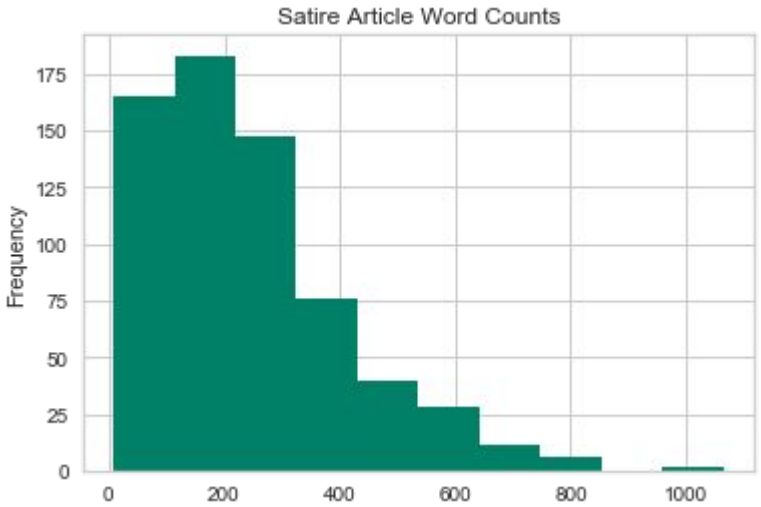
So[u]rces

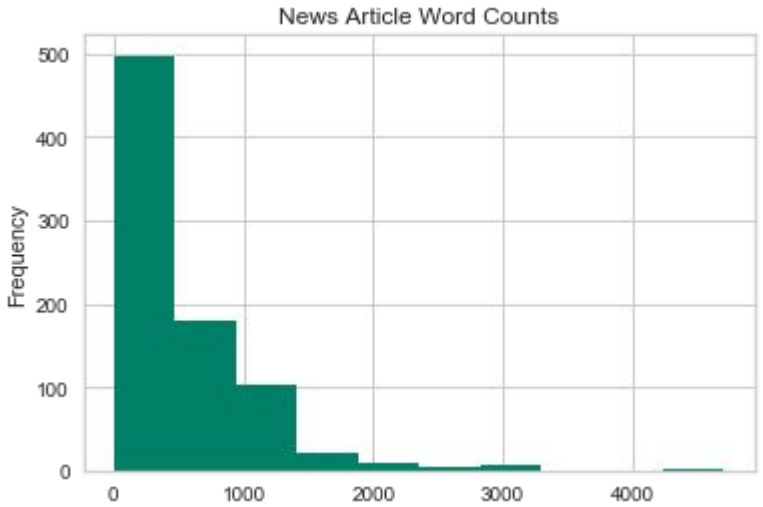




Of 1,483 total articles, 44% were satire

Truncating articles





Considerations

TF-IDF Vectorization

More than just a bag of words - need to give words some *weight*

Lemmatizing

Porter stemming is a bit crude

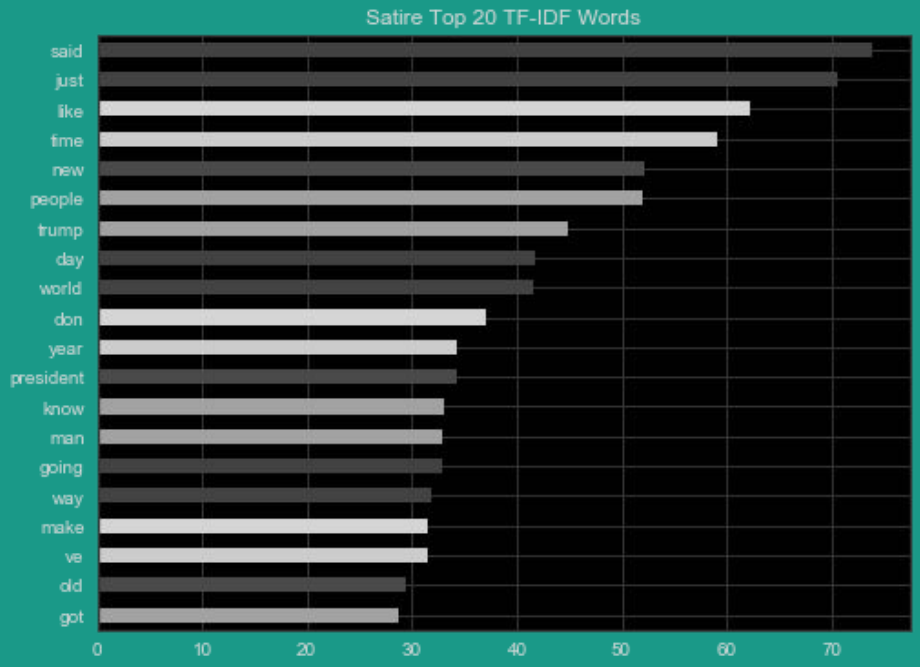
Bi-grams

Include two-word phrases

Boilerplate Text

Remove instances of "Hide Captions", self-references, etc.

Top Words


Satire Top 20 TF-IDF Words
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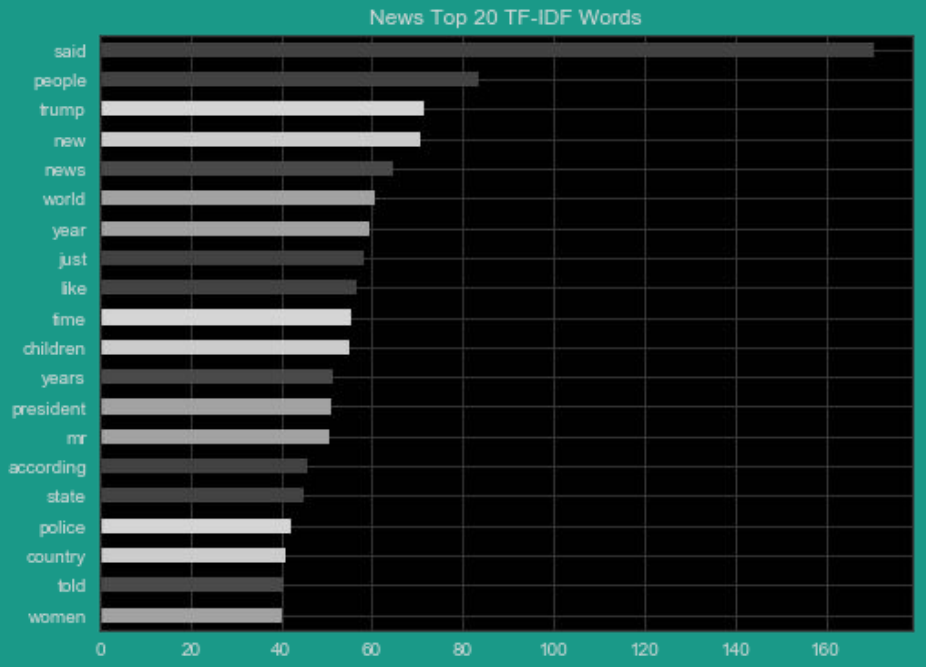
News Top 20 TF-IDF Words
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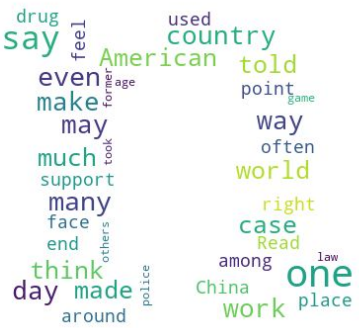
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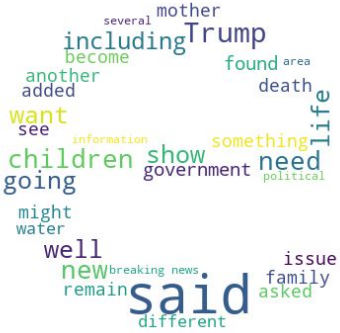
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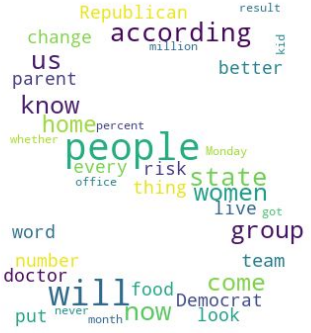
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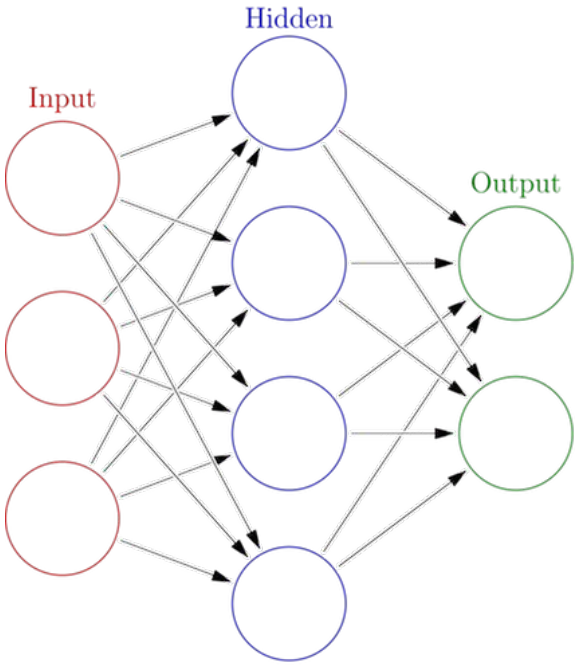
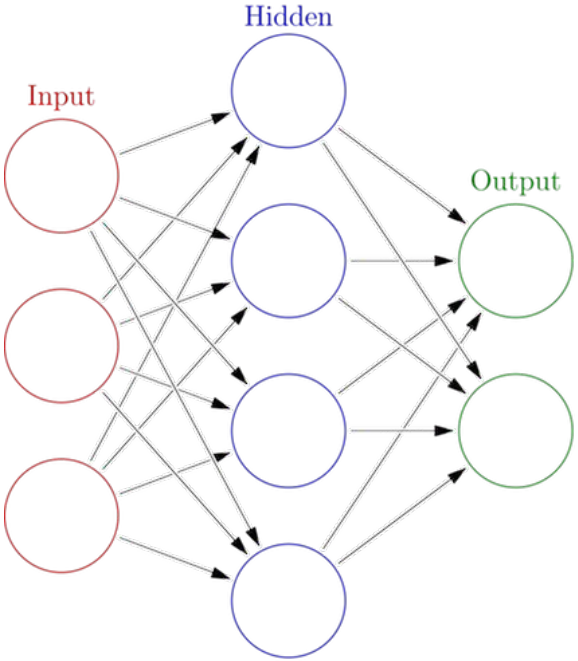
So where does the "machine learning" come in to play?

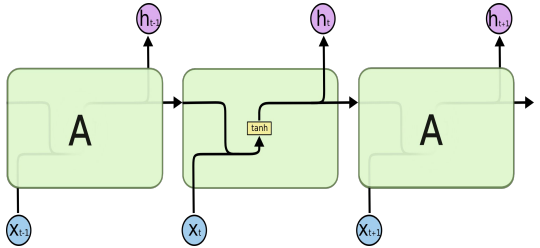
Neural Networks



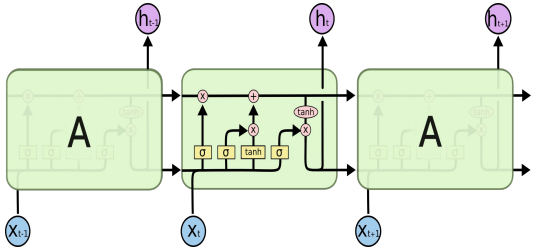
Acronym o'clock



RNN = *Recurrent Neural Network*



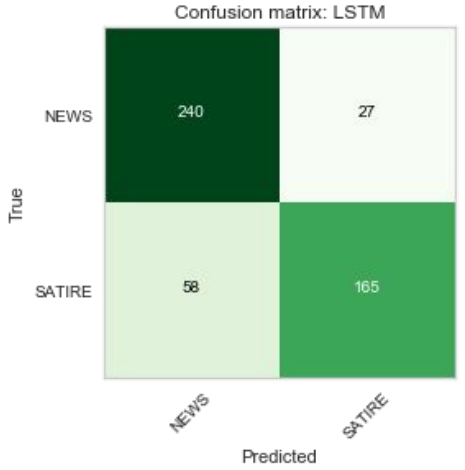
LSTM = *Long Short-Term Memory*

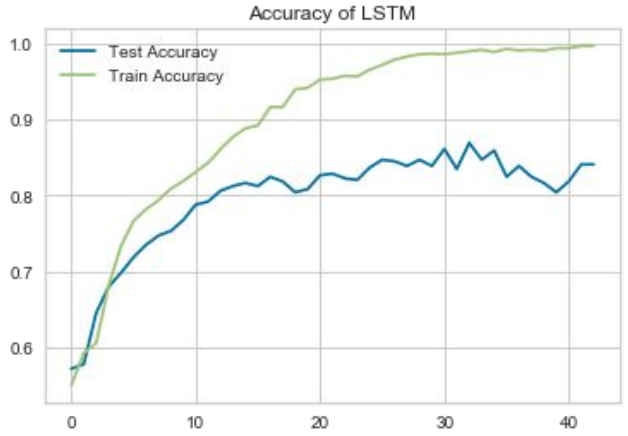


Okay, that was a lot.

But, like, did it work?

Actually, yeah.





84% accuracy

And considering we were aiming to beat random chance at 44% - this is *huge*

What next?

More data. Always.	• Scrape articles over a 12-month period • Consider additional English-speaking markets
Use a fine-toothed comb	• Toss any additional boilerplate language
Cut the sailor's talk	• Remove swear words • Remove generalizations (e.g.: "local man")
Set stricter word counts	• Establish higher minimum thresholds • Lower maximum threshold
Test other uses of the classifier	• Headlines, anyone?

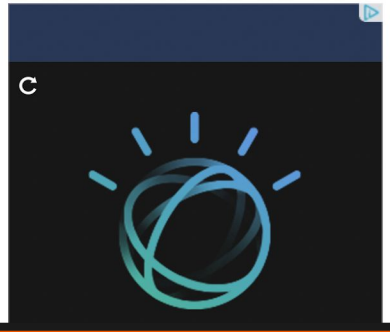
The Story About Kim Jong-un Having His Uncle Eaten By 120 Wild Dogs May Have Started With A Satirical Tweet

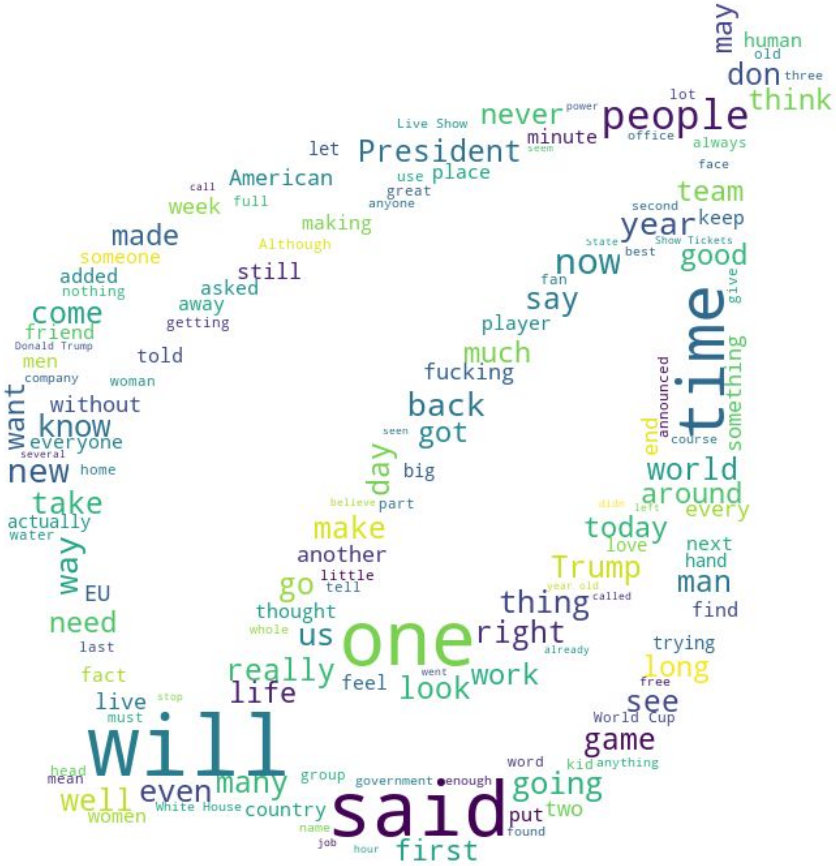
Adam Taylor Jan. 5, 2014, 12:48 PM

Kim Jong Un, center, visits at Kumsusan Memorial Palace in Pyongyang, North Korea, to pay respect to his father. At far left front is Jong Un's uncle Jang Song Thaek. AP

RECOMMENDED FOR YOU

I've taken AncestryDNA, 23andMe, and National Geographic genetics tests — here's how to choose one to try

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Slide 13:

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Slide 14:

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