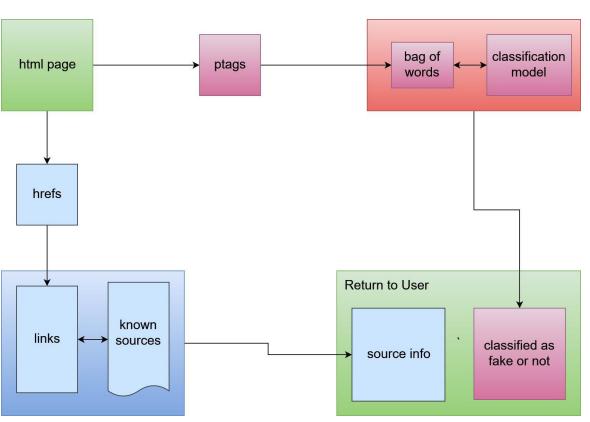


James Brothers, Julia Evans, Joseph Turner

High Level



Since the midterm...

- Data Collection
- Data Analysis
- Whols

Jord	Frequency
site	5 -
archaeological	4
y ear s	3
ire	3
nural	3 2
thousands	2
reportedly	2
sugar	2
ane	2 2
Farmers	2
ourning	2
Fields	2
destroyed	2
northern	2
peru	2 2 2
oldest	2
discovered	2
said	2
ventarrón	2
complex	2
temple	2
art	2
civilization	2
story	1
nighlights	1
engulfed	1
Flam e s	1
old	1
started	1
nearby	1
nn	1
nuch	13 E

~870 (Mostly) Bad Sources

Pulled from OpenSources (os) and PolitiFact (pf)

site_name	os_type_1	os_type_2	os_type_2_1	pf_type	pf_registration	
100percentfedup.com	bias					
16wmpo.com	fake			Imposter site	Scottsdale	Ariz. **
21stcenturywire.com	conspiracy					
247 news media.com				Fake news	Kumanovo	Macedonia
24 news flash.com	fake					
24 online. news				Imposter site	Panama	Pa. **
24wpn.com	fake			Fake news	Veles	Macedonia
365 usanews.com	bias	conspiracy				
4threvolutionarywar.wordpress.com	bias	conspiracy				
70 news.word press.com	fake					
82.221.129.208	conspiracy	fake				
1 2 11 1						

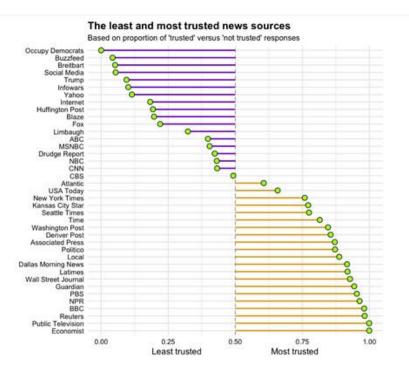
~5000 Fake Articles

Python script uses newspaper API and multi-threading to pull articles

source	url	title	text	fake	bias	imposter	satire	unreliable	reliable	conspiracy	parody	rumor	junksci	clickbait	hate	politica	al
virallibert	y. http://vii	ral Rising pric	eHERE Is Wh	- 1		1 0	0	0	(0 0		0	0	0	1	0	0
virallibert	y. http://vi	ral Record nui	Record nur	1 1		1 0	0	0		0 0		0	0	0	1	0	0
virallibert	y. http://vi	ral No new ide	e HERE Is Wh	- 1		1 0	0	0		0 0		0	0	0	1	0	0
virallibert	y. http://vii	ral White Hou	HERE Is W	- 1		1 0	0	0		0		0	0	0	1	0	0
virallibert	y. http://vi	ral White Hou	HERE Is W	- 1		1 0	0	0		0 0		0	0	0	1	0	0
virallibert	y. http://vi	ral The busine	The busine	: 1		1 0	0	0	(0 0		0	0	0	1	0	0
virallibert	y. http://vii	ral No new ide	HERE Is W	- 1		1 0	0	0		0 0		0	0	0	1	0	0

viralliberty. http://viral Who needs Fridalys Ken also heard Wednesday afternoons giving weekly economic report Angel Clark radio show HERE Is WHAT WILL HAPPEN If The DEEP STATE TAKES DOWN viralliberty. http://viral Rising price Jefferson ELDER PATRIOT Corrupt politicians ignore Jeffersons directive detriment Its longer political its personal Americans eyes opened ascension Donald Trump a viralliberty. http://viral Featured A reviewing results 2016 elections expectations voters Cruz high profile personality clash Donald Trump Republican primary process nevertheless embraced Trumps A americange http://ame POLL How I think quite rightly Candidate Trump promised many things border control lower taxes fairer trade relations balanced budget healthcare puts people first government americange http://ame POLL Do Yc After four months without single legislative achievement Congressional Senatorial Republicans notably John McCain Paul Ryan Lindsey Graham joined Democrats usadosene http://usac Packers wo promise Trump made way White House Republicans joining Democrats quaking boots Trumps promise Drain Swamp As reported yesterday An FBI agent intimate k usadosene http://usac Eagles sign near entire government could brought down The criminal coconspirators parties realized almost immediately new sheriff wasnt interested joining swamp launched usadosene http://usac BREAKING bloody civil wars It noted Democratic Party already done before One Hundred FiftySeven years ago Democrats waged war First Republican President Abraham Linco usadosene http://usac BREAKING bloody civil wars It noted Democratic Party already done before One Hundred FiftySeven years ago Democrats waged war First Republican President Abraham Linco usadosene http://usac Byron to sig Americans back Donald Trump well armed Donald Trumps presidency move forward politically lest sixty million patriots voted comprised large majority military vo

~30 (Mostly) Trusted Sources



1	www.bbc.com	
2	www.npr.org	
3	www.pbs.org	
4	www.abcnews.go.com	
5	www.cbsnews.com	
6	www.nbcnews.com	
7	www.cnn.com	
8	www.usatoday.com	
9	news.google.com	
10	www.economist.com	
11	www.nytimes.com	
12	www.washingtonpost.com	
13	www.msnbc.com	
14	www.theguardian.com	
15	www.bloomberg.com	
16	www.newyorker.com	
17	www.politico.com	

~ marketwatch.com

~5000 Real Articles

	title	text	fake	bios									5 5 191	TOUR STEEL STEEL			100 0 10
			lake	bias	imposter	satire	unrelia	ble reliable		conspiracy parody	rumor		junksci	clickbait	hate	p	oolitical
ittps://ww	Putin s Gen	In Vladimir	0	0	C	()	0	1	0	0	0	0	0)	0	0
ttps://ww	Trump s W	President D	0	0	C	(0	0	1	0	0	0	0	0		0	0
ttps://ww	Tesla Is Ret	In N Out Bu	0	0	C	(0	0	1	0	0	0	0	0)	0	0
ttps://ww	Senate Rep	Senate Rep	0	0	C	()	0	1	0	0	0	0	O		0	0
ttps://ww	Here Come	On Nov 11	0	0	C	(0	0	1	0	0	0	0	0)	0	0
ttps://ww	lt s Amazin	Just seeme	0	0	C	()	0	1	0	0	0	0	0		0	0
ttps://ww	Trump Insis	President D	0	0	C	(0	0	1	0	0	0	0	C		0	0
1	ttps://ww ttps://ww ttps://ww ttps://ww ttps://ww	ttps://ww Trump s W ttps://ww Tesla Is Ret ttps://ww Senate Rep ttps://ww Here Come ttps://ww It s Amazin	ttps://ww Trump s W President C ttps://ww Tesla Is Ret In N Out Bu ttps://ww Senate Rep Senate Rep ttps://ww Here Come On Nov 11 ttps://ww It s Amazin Just seeme	ttps://ww Putin s GenIn Vladimir ttps://ww Trump s W President D ttps://ww Tesla Is Ret In N Out Bu ttps://ww Senate Rep Senate Rep ttps://ww Here Come On Nov 11 ttps://ww It s Amazin Just seeme ttps://ww Trump Insis President D	ttps://ww Trump s W President C 0 0 ttps://ww Tesla Is Ret In N Out Bu 0 0 ttps://ww Senate Rep Senate Rep 0 0 ttps://ww Here Come On Nov 11 0 0 ttps://ww It s Amazin Just seeme 0 0	ttps://ww Trump s W President C 0 0 0 ttps://ww Tesla Is Ret In N Out Bt 0 0 0 ttps://ww Senate Rep Senate Rep 0 0 0 ttps://ww Here Come On Nov 11 0 0 0 ttps://ww It s Amazin Just seeme 0 0 0	ttps://ww Trump s W President C 0 0 0 ttps://ww Tesla Is Ret In N Out Bu 0 0 0 ttps://ww Senate Rep Senate Rep 0 0 0 ttps://ww Here Come On Nov 11 0 0 0 ttps://ww It s Amazin Just seeme 0 0 0	ttps://ww Trump s W President C 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	ttps://ww Trump s W President E	ttps://ww Trump s W President C 0 0 0 0 0 0 1 ttps://ww Tesla Is Ret In N Out Bu 0 0 0 0 0 1 ttps://ww Senate Rep Senate Rep 0 0 0 0 0 0 1 ttps://ww Here Come On Nov 11 0 0 0 0 0 0 1 ttps://ww It s Amazin Just seeme 0 0 0 0 0 0 1	ttps://ww Trump s W President C 0 0 0 0 0 0 1 0 ttps://ww Tesla Is Ret In N Out Bu 0 0 0 0 0 0 1 0 ttps://ww Senate Rep Senate Rep 0 0 0 0 0 0 1 0 ttps://ww Here Come On Nov 11 0 0 0 0 0 0 1 0 ttps://ww It s Amazin Just seeme 0 0 0 0 0 0 0 1 0	ttps://ww Trump s W President E 0	ttps://ww Trump s W President C 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0	ttps://ww Trump s W President E 0 0 0 0 0 1 0 0 0 0 ttps://ww Tesla Is Ret In N Out Bt 0 0 0 0 0 1 0 0 0 0 ttps://ww Senate Rep Senate Rep 0 0 0 0 0 1 0 0 0 0 ttps://ww Here Come On Nov 11 0 0 0 0 0 1 0 0 0 0 ttps://ww It s Amazin Just seeme 0 0 0 0 0 1 0 0 0 0	ttps://ww Trump s W President E 0	ttps://ww Trump s W President E 0	ttps://ww Trump s W President C 0 0 0 0 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0

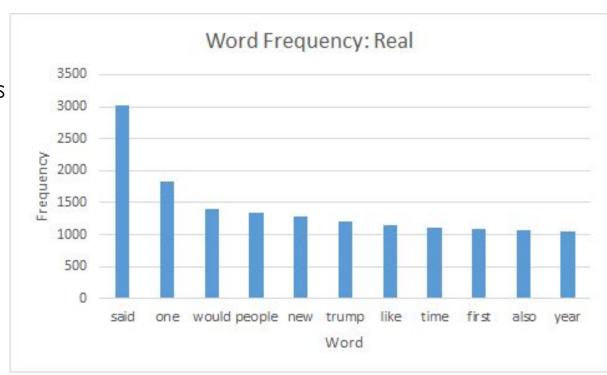
www.bloor http://www Senate Rect Senate Republicans tossed potential bomb middle tax overhaul bill The plan released Tuesday night mixes two red hot debates adding repeal Obamacare law s inc www.bloor http://www Trump s W. Democrats bumper sticker ready issue use charge base. The revised proposal will effectively repeal Obamacare s individual mandate tax provide even tax relief low www.bloor https://www.bloor https://www.bloor https://www.bloor https://www.bloor https://www.bloor https://www.bloor http://www.bloor http://www.bloor http://www.bloor https://www.bloor https://www.bloo

Data Analysis: Real News

First step: word frequency

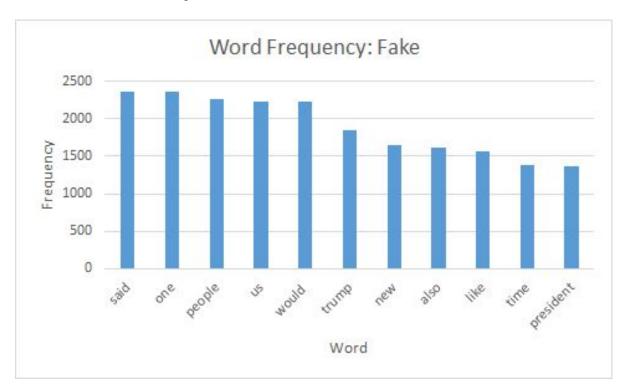
Ideally: looking at phrases

More cleaning needed "said", "like", "also"



Data Analysis: Fake News

So far similar to real news



Whols

Difficult to read

Very easy to parse (WholsReturn.country)

```
{ "domain_name": [ "CONSERVATIVEFLASHNEWS.COM", "conservativeflashnews.com" ], "registrar": "NAMECHEAP INC", "whois_server": "whois.namecheap.com", "referral_url": null, "updated_date": "2017-02-14 23:41:23", "creation_date": "2017-02-14 22:11:01", "expiration_date": "2018-02-14 22:11:01", "name_servers": [ "DNS1.NAMECHEAPHOSTING.COM", "DNS2.NAMECHEAPHOSTING.COM", "dns1.namecheaphosting.com", "dns2.namecheaphosting.com" ], "status": [ "clientTransferProhibited https://icann.org/epp#clientTransferProhibited", "addPeriod https://icann.org/epp#addPeriod" ], "emails": [ "abuse@namecheap.com", "170bc9e3aab94dcf8ec6c27c67e6f1a8.protect@whoisguard.com" ], "dnssec": "unsigned", "name": "WhoisGuard Protected", "org": "WhoisGuard, Inc.", "address": "P.O. Box 0823-03411", "city": "Panama", "state": "Panama", "zipcode": null, "country": "PA" }
```

```
'domain_name": [
  "CONSERVATIVEFLASHNEWS.COM",
  "conservativeflashnews.com"
"registrar": "NAMECHEAP INC",
"whois server": "whois.namecheap.com",
"referral url": null.
"updated_date": "2017-02-14 23:41:23",
"creation date": "2017-02-14 22:11:01",
"expiration_date": "2018-02-14 22:11:01",
"name servers": [
  "DNS1.NAMECHEAPHOSTING.COM",
 "DNS2.NAMECHEAPHOSTING.COM".
  "dns1.namecheaphosting.com",
  "dns2.namecheaphosting.com"
"status": [
  "clientTransferProhibited https://icann.org/epp#clientTran
  "addPeriod https://icann.org/epp#addPeriod"
"emails": [
  "abuse@namecheap.com",
 "170bc9e3aab94dcf8ec6c27c67e6f1a8.protect@whoisquard.com"
"dnssec": "unsigned",
"name": "WhoisGuard Protected",
"org": "WhoisGuard, Inc.".
"address": "P.O. Box 0823-03411",
"city": "Panama",
"state": "Panama".
"zipcode": null,
"country": "PA"
```

What is Suspicious

This is "ConservativeFlashNews"

```
domain_name": [
  "CNN.COM",
  "cnn.com"
"registrar": "CSC CORPORATE DOMAINS, INC.",
"whois server": "whois.corporatedomains.com",
"referral_url": null,
"updated_date": [
 "2017-02-15 17:31:58",
 "2017-02-15 16:01:26"
"creation_date": "1993-09-22 04:00:00",
"expiration_date": "2018-09-21 04:00:00",
"name servers": [
 "NS-1086.AWSDNS-07.ORG",
 "NS-1630.AWSDNS-11.CO.UK",
 "NS-47.AWSDNS-05.COM",
"emails": [
  "domainabuse@cscglobal.com",
  "tmgroup@turner.com",
  "hostmaster@turner.com"
"dnssec": "unsigned",
"name": "Domain Name Manager",
"org": "Turner Broadcasting System, Inc.",
"address": "One CNN Center",
"city": "Atlanta",
"state": "GA".
"zipcode": "30303",
"country": "US"
```

A Viable Website

CNN.com



What to Check

- Website country
- Registrar
- Owner Name
- Organization

Final Steps

Task	Person to complete it	Time Frame
Further data analysis: n-gram analysis	Julia	By 12/1
Integrate Whols & classification model with UI	Joseph/James	By 12/3
Polish final report: Results	Julia	By 12/10
Polish final report: Discussion	Joseph/James	By 12/10