2016-07-15

Data Literacy and Voting

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Data Literacy and Voting

Martha Stuit
University of Michigan

Friday, July 15, 2016, 1:15 p.m. - 2:15 p.m.



Image: "Voting United States.jpg" by Tom Arthur, on <u>Wikimedia Commons</u>. CC BY-SA 2.0.



July 14 - 15, 2016

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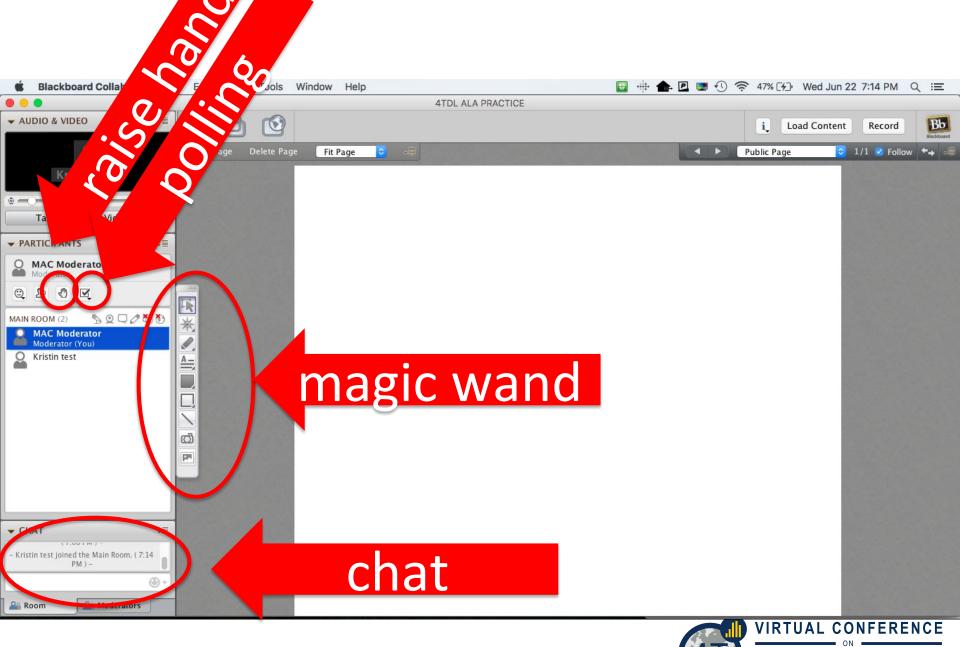
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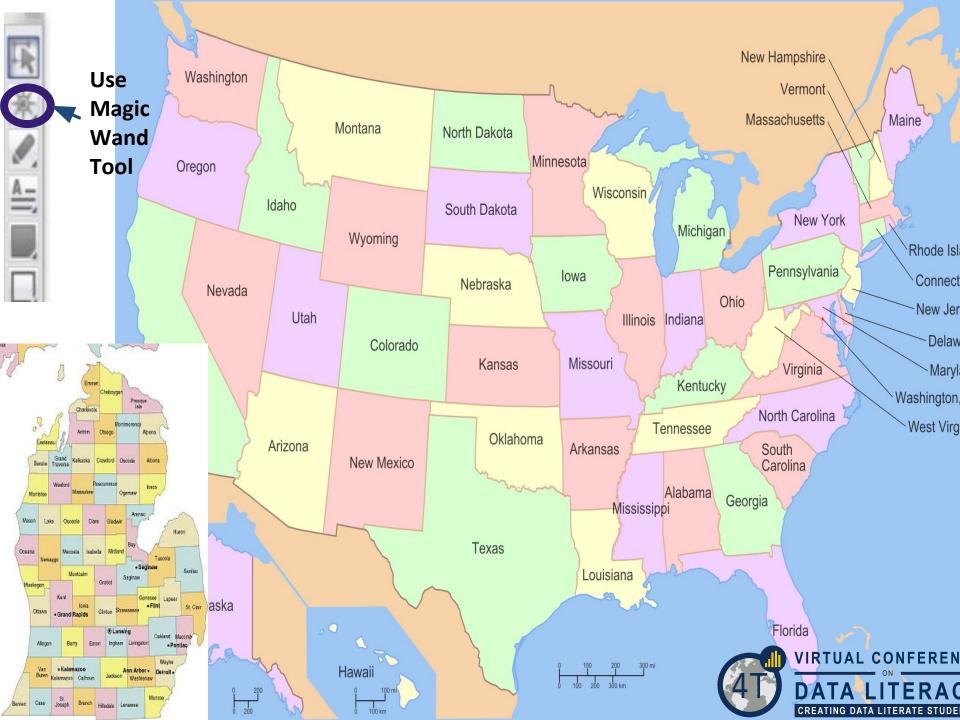
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Martha Stuit Presenter



What Do You Teach?



Agenda

- 1. News media
- 2. 2016 Presidential election overview
- 3. Rules of thumb for data literacy and voting
- 4. Sources of election information
- 5. Questions/discussion



News Media





Americans overwhelmingly think that news media are one-sided

Americans overwhelmingly think that news media are one-sided

% of U.S. adults who think that <u>news organizations</u> ... when covering political and social issues



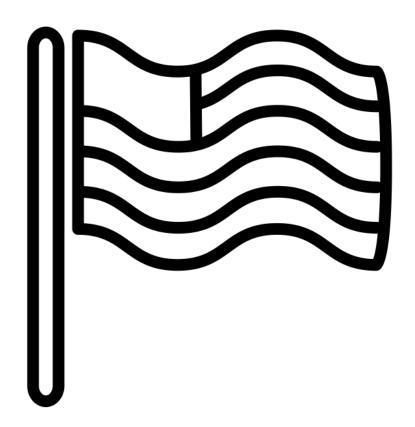
But more are divided in whether they think this about news they get online from friends and family

% of online news consumers who think that the news their friends and family post or send online about political and social issues ...

Represents more than one side	Represents just one side	They don't get this news from friends & family online
31%	35%	33%
		0.000.00000



2016 Presidential Election





2016 Presidential Election

- February 1 to June 14: Primaries
- May 3: Donald Trump became the presumptive Republican nominee
- June 6: Hillary Clinton became the presumptive Democratic nominee
 - Bernie Sanders is still active
- National conventions to determine the parties' nominees for president and vice president:
 - July 18-21: Republican National Convention
 - July 25-28: Democratic National Convention
- November 8: Election



Rules of Thumb for Data Literacy and Voting





1. Know how polling works.

What is polling? How do they get those numbers?

As Charles Wheelan writes:

"...one might reasonably ask, How do we know all this? How can we draw such sweeping conclusions about the attitudes of hundreds of millions of adults? And how do we know whether those sweeping conclusions are accurate?" (170)



Definition, from Wheelan:

"A poll (or survey) is an inference about the opinions of some population that is based on the views expressed by some sample drawn from that population." (170)

*A "poll" is also the place where voters cast their votes.



Ways that polls trip us up:

- Polls are formed from samples of a population.
 - Is the sample representative of the population?

- Types of bias:
 - Nonresponse bias: who chose not to participate in the poll
 - Selection bias: who participated in the poll

- Question wording and order
 - How might respondents respond?



There are different types of polls:

- Interactive polls: an interviewer speaks with a respondent.
- Automated polls: a robo-call to respondents.
 Respondents use their phone keypad to respond.
- Online polls: polls completed online, which are questionable because not all people have Internet access, and they have issues with bias.



Indications of a good poll:

Transparency - Participates with these organizations:

American Association for Public Opinion Research (AAPOR)

National Council on Public Polls (NCPP)

Includes article called "20 Questions A Journalist Should Ask About Polls Results"

Roper Center's Polling Data

*Tip: Check out FiveThirtyEight's Pollster Ratings! (You can delve even deeper by clicking on "How this works.")

Methodology

- Representative of population
- Type of poll



Example: Franklin and Marshall College Poll

March 2016
Franklin & Marshall
College Poll

SUMMARY OF FINDINGS

Prepared by:
Center for Opinion Research
Floyd Institute for Public Policy
Franklin & Marshall College

RACE. Which of the following categories best describes your racial background?

93% White 8% Non-white



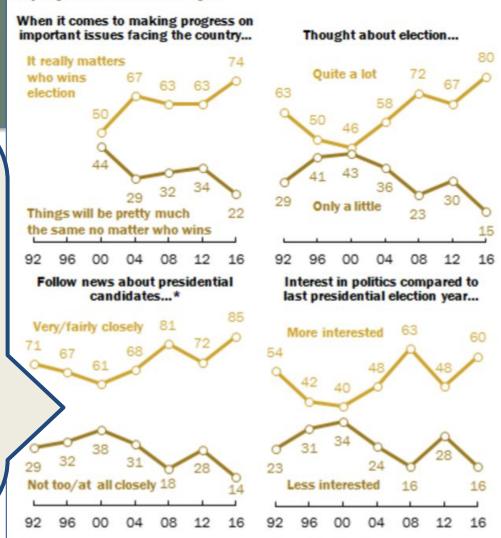
Example: Pew Research Center report

- **Sample**: 2,245 adults, who are 18 and older, in the United States.
- Methodology: telephone interviews
 - 559 contacted by landlines
 - 1,686 contacted by cell phones



High levels of interest in the election

% of registered voters who say ...



Notes: Based on registered voters. Q23, THOUGHT, CAMPNII & Q5. Other/Don't know responses not shown.

PEW RESEARCH CENTER

^{*} Results from June surveys except for 1992 & 1996 interest in campaign news, from July. Source: Survey conducted June 15-26, 2016.

2. Apply statistical skills.

- Questions to ask:
 - What is the sample, and is it representative?
 - What kind of average is it?
 - Mean, median, or mode
 - What is the **inverse** of the statistic?
 - What is the margin of error?
 - + or percentage points



3. Apply data visualization skills.

Type of chart or graph

- Is it the right one?
- Is it used correctly?
- Is it misleading?

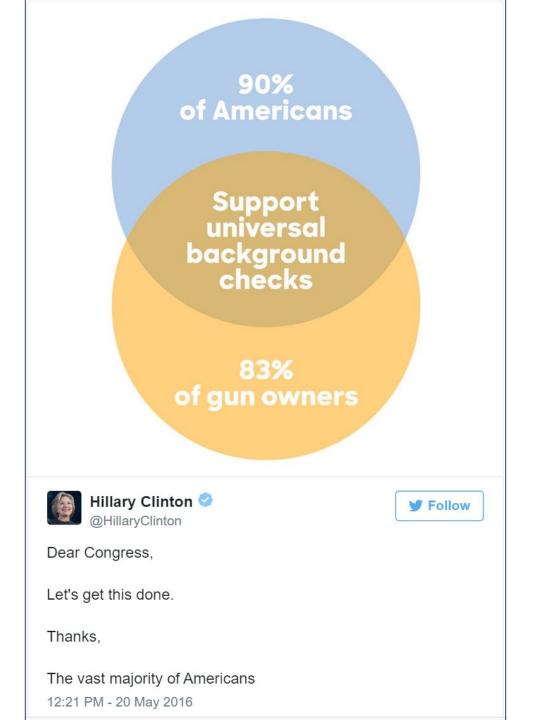
Colors

- What are the colors supposed to indicate?
- Do they make the data seem dramatic?



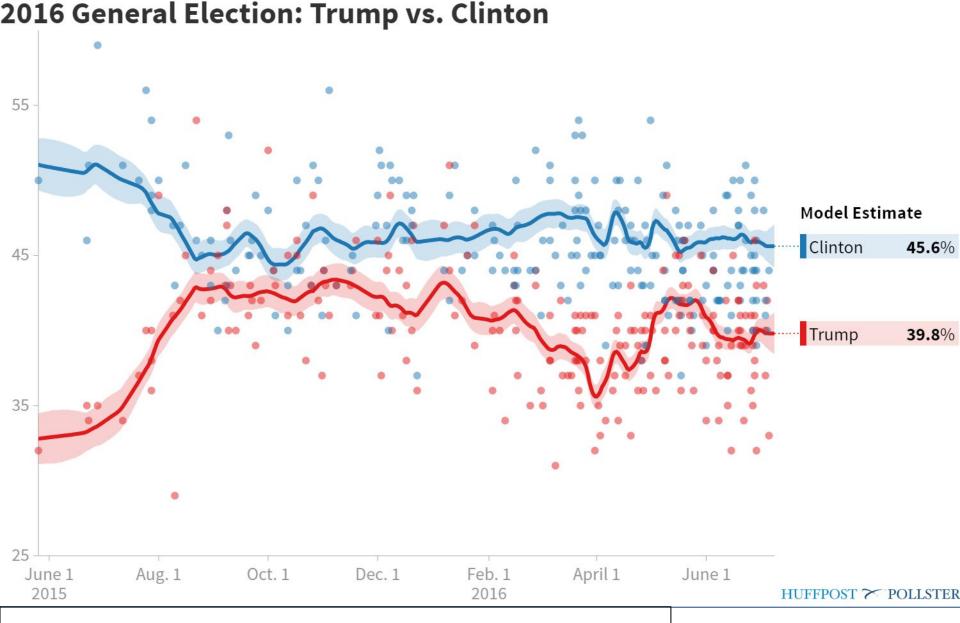
Example:
Venn
diagram
by
Hillary
Clinton





Example: Revised visualization





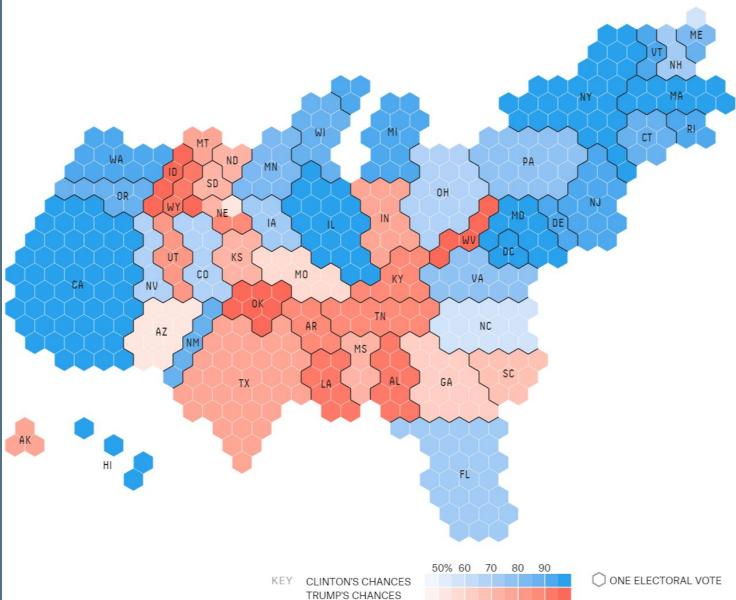
Each dot is an opinion poll, and the lines indicate trends generated by HuffPost Pollster's poll-tracking model. This chart is as of July 8, 2016.



It's all about the 538 Electoral College votes

Here's a map of the country, with each state sized by its number of electoral votes and shaded by the leading candidate's chance of winning it.

Example: FiveThirty Eight Electoral College Map





4. Look at multiple sources.

- We often talk about unbiased sources or reporting, which do not exist. Good methodology and bad methodology do exist.
- To combat that, look for multiple sources to understand an issue. Also, apply the statistics and data visualization skills that you have learned from other webinars.
- Making good, informed decisions about the sources of information that you read and cite is key.
- How?
 - Look for counterarguments on the issue.
 - Peruse a variety of sources, including ones that lean left and ones that lean right.

Sources for Election Information





FiveThirtyEight



♥ FiveThirtyEight

Sports

Politics

Science & Health

Economics

Culture

Just launched: NBA player projections



LAW ENFORCEMENT

The Dallas Shooting Was Among The Deadliest For Police In U.S. History

By Carl Bialik, Ritchie King and Andrew Flowers

THE LATEST

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Serena Williams Ties Graf's Majors Record Thanks To A Remarkable Run In Her 30s

301.3

New Podcast Jobs At ESPN: "30 for 30" And FiveThirtyEight

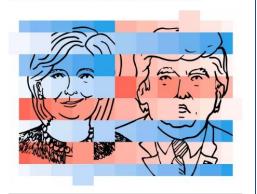
JUL 8

The Dallas Shooting Was Among The Deadliest For Police In U.S. History

B IIII.

What Our NBA Projections Got Right (And Wrong) Last Season INTERACTIVES

2016 General Election Forecast



MLB Predictions

UPDATED 8 HOURS AGO

Upcoming games

7	Blue Jays def. Tigers	61%
科	Mets def. Nationals	53%
C		F 0.0

C Indians def. Yankees 58%

C Cubs def. Pirates 53%

https://fivethirtyeight.com/

Flowing Data





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History lesson on data visualization

Clive Thompson for Smithsonian Magazine gives a quick history lesson on infographics. [D]ata visualization was rare because data was rare. ...



Making the Seinfeld theme song with Bieber, Diplo, and Skrillex

Last year the New York Times interviewed Justin Bieber, Diplo, and Skrillex about how they put together their song Where ...

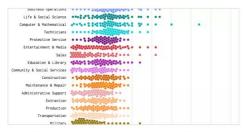


Moving drought boundaries

along. My grass is just about dead, save a few hearty patches clinging on to the ...

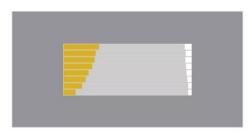


Features SEE ALL →



Shifting Incomes for American Jobs

For various occupations, the difference between the person who makes the most and the one who makes the least can be significant.



Who Still Smokes?

Two decades out from the first statewide ban on smoking in enclosed workplaces, here's who still smokes.



Become a member.

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http://flowingdata.com/

League of Women Voters





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MAKING DEMOCRACY WORK





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CAPTCHA

This question is for testing whether you are a human visitor and to prevent automated spam submissions.

Math question

2 + 11 =

Solve this simple math problem and enter the result. E.g. for 1+3, enter 4.

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nformation:	

Enter your address to find your polling place, build your ballot with our online voters' guide and much more! With our voters' guide you can see the races on your ballot, compare candidates' positions side-by-side, and print out a "ballot" indicating your preferences as a reminder and take it with you to the polls on Election Day. Check out our resources for military and overseas voters!







	-				
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http://www.vote411.org/

The New York Times: The Upshot



http://www.nytimes.com/section/upshot



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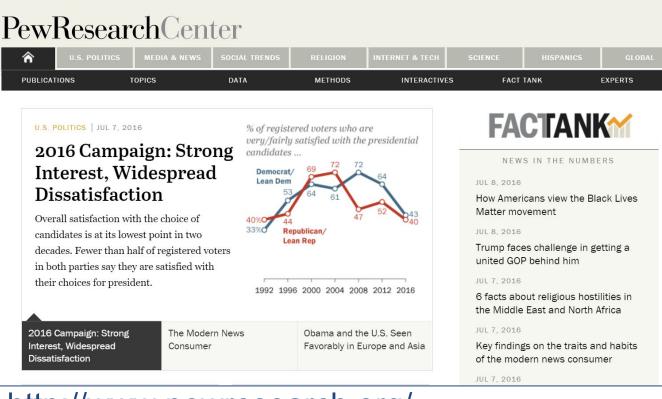
OBAMA AND TRUMP AFTER DALLAS

BY DAVID REMNICK

A President can be judged on his ability to explain, to console, and to frame tragedy in the realm of both politics and emotion.

http://www.newyorker.com/

Pew Research Center



You can look many of these sources up on FiveThirtyEight's Pollster ratings (next slide). For instance, Pew gets a B+.

http://www.pewresearch.org/



Aggregators of Polls: FiveThirtyEight

UPDATED 11:00 AM EDT | JUN 29, 2016

FiveThirtyEight's Pollster Ratings

By Nate Silver

FiveThirtyEight's pollster ratings are calculated by analyzing the historical accuracy and the methodology of each firm's polls. Accuracy scores account for the type of election, a poll's sample size, the performance of other polls surveying the same race and other factors. We also calculate measures of statistical bias in the polls.

See more: The State Of The Polls, 2016 | How this works | Download the data

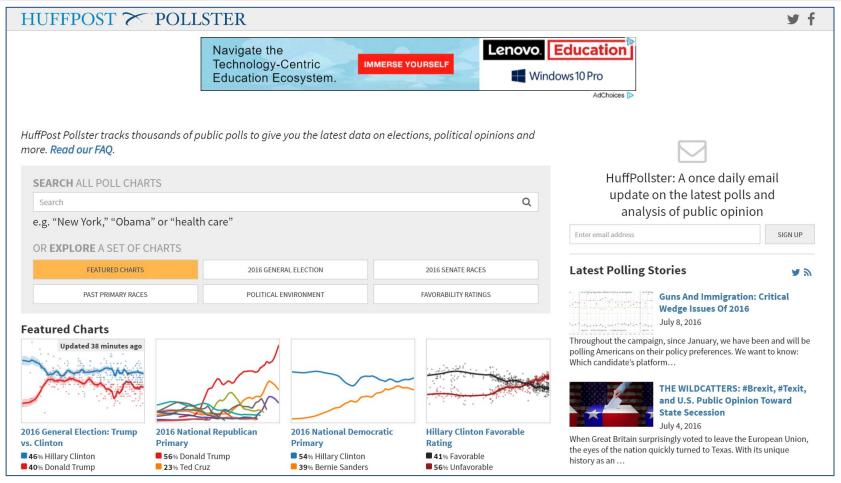
RATINGS DEFINITIONS

POLLSTER	LIVE CALLER WITH CELLPHONES	INTERNET	NCPP/ AAPOR/ ROPER	POLLS ANALYZED	SIMPLE AVERAGE ERROR	RACES CALLED CORRECTLY	ADVANCED +/-	PREDICTIVE +/-	538 GRADE	BANNED BY 538	MEAN-RE	VERTED BIAS
SurveyUSA			•	763	4.6	90%	-1.0	-0.8	A		D+0.1	
YouGov		•		707	6.7	93%	-0.3	+0.1	В		D+1.6	
Rasmussen Reports/ Pulse Opinion Research				657	5.3	79%	+0.4	+0.7	C+		R+2.0	
Zogby Interactive/JZ Analytics		•		465	5.6	78%	+0.8	+1.2	C-		R+0.8	
Mason-Dixon Polling & Research, Inc.	•			415	5.2	86%	-0.4	-0.2	В+		R+1.0	
Public Policy Polling				383	4.9	82%	- 0 . 5	-0.1	В+		R+0.2	
Research 2000				279	5.5	88%	+0.2	+0.6	F	×	D+1.4	

http://proje cts.fivethirt yeight.com /pollster-ra tings/



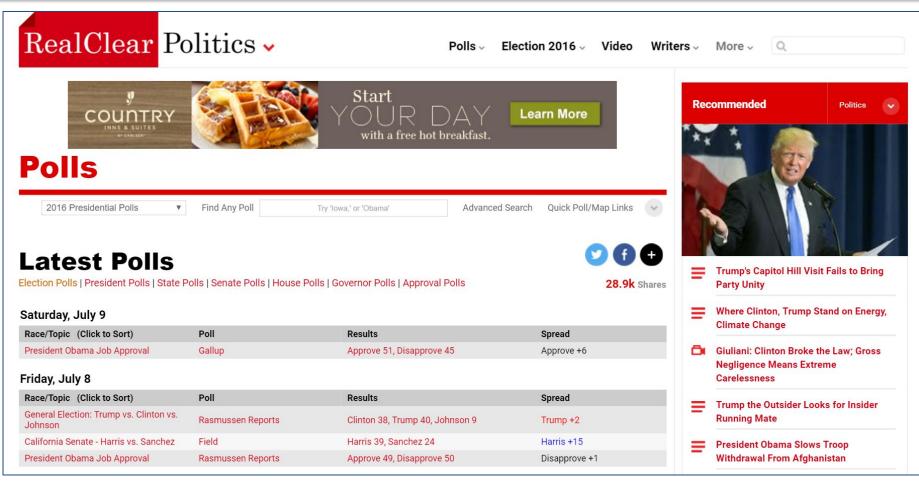
Aggregators of Polls: HuffPost Pollster



http://elections.huffingtonpost.com/pollster



Aggregators of Polls: RealClearPolitics



http://www.realclearpolitics.com/



Others...

What are your favorites?



Resources



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Icons courtesy of The Noun Project.

Recap:

- Know how polling works.
- Apply statistical skills.
- Apply data
 visualization
 skills.
- 4. Look at multiple sources.

Questions?

Martha Stuit
Email: stuitm@umich.edu



Recap:

- Know how polling works.
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Evaluation:

http://bit.ly/4TDL-voting

