# TWITTER-BASED PUBLIC DISCOURSE ON HEALTH REFORM

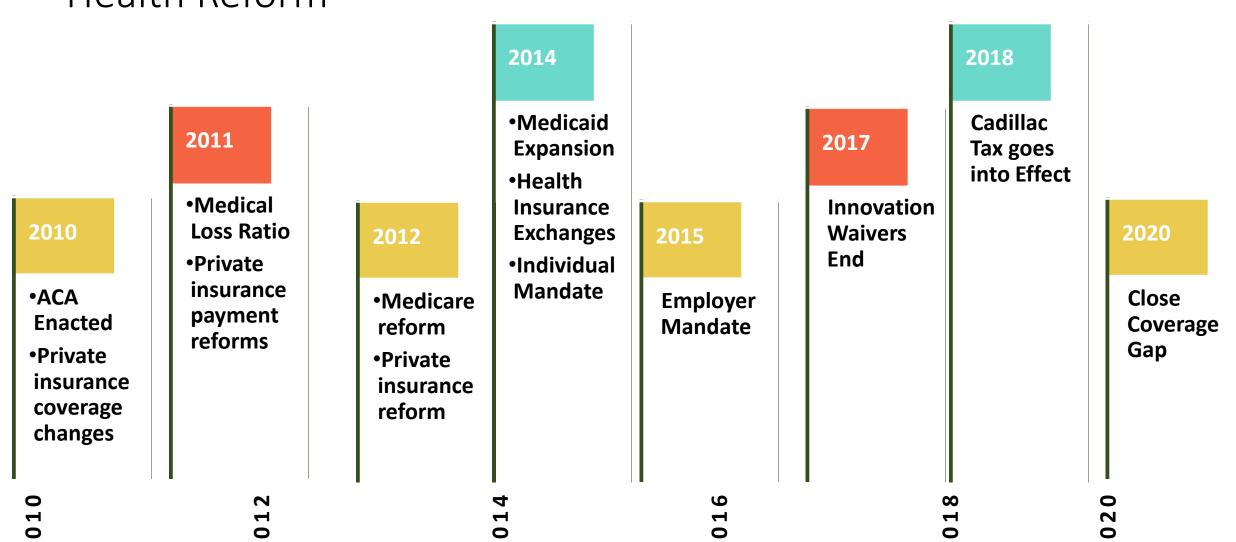
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# Agenda

- Study Motivation
- Rationale for Method
- Method
- Results
- Research Implications and Next Steps
- Policy Relevance

# Study Motivation: Health Reform



## Study Motivation: Key Questions

- How do people **feel** about the Affordable Care Act (ACA)?
- Do people with different views use different language to talk about the ACA?
- Who is taking part in, or influencing, the dialogue about the ACA?

# Rationale for Method: Selecting a Qualitative Method

Qualitative Method	Advantages	Disadvantages
Key Informant Interviews	Data richness	Expensive Small <i>n</i> Time lag
Focus Groups	Data richness Multiple views captured	Expensive Limited topic saturation Small <i>n</i> Time lag
Survey	Varied cost by mode Standardized information Multiple views captured Large <i>n</i>	Varied cost by mode Data saturation Mode effects Low response rates Time lag



- Content sharing
  - Tweets
  - Retweets (RT)
  - User Mentions (@)
- Keyword reference and search
  - Hashtags (#)
- Media sharing
  - Webpages
  - Media (video, pictures)



President Obama Retweeted



Facts On Climate @FactsOnClimate - Oct 20

Climate change threatens us all, and it will take all of us to solve it. Get the facts on how we can: go.wh.gov/Climate #ActOnClimate





859



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President Obama @POTUS - Oct 19

I got a chance to catch up with the @Space\_Station crew today.

Nothing like a call to space on #AstronomyNight!



The White House

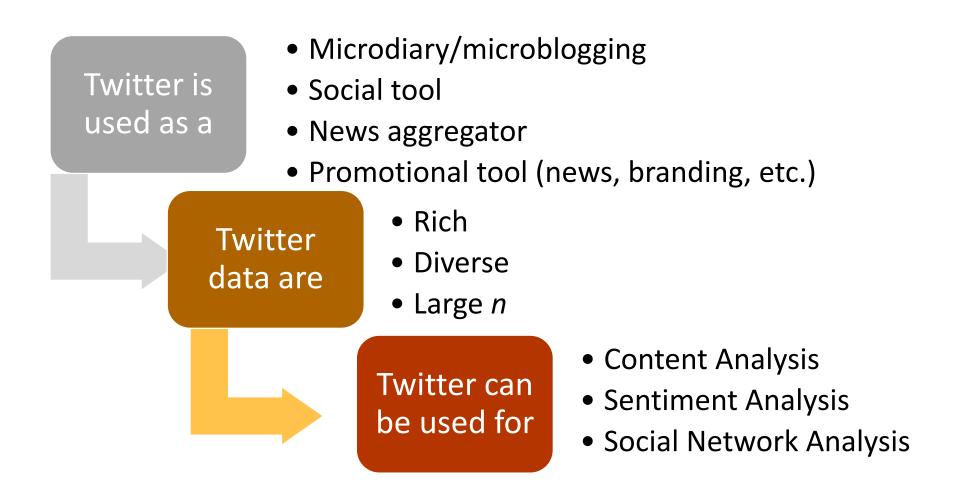


President Obama Calls the International Space Station

Follow @WhiteHouse for the latest from President Obama and his administration.

## Rationale for Method:

#### Using Twitter to Mine Public Opinion



## Methodology:

Data Collection, Cleaning, and Preparation



Select keywords (#aca, #Obamacare, affordable care act, health reform, healthcare reform, Obamacare)



Collect tweets June 16, 2013 – July 13, 2013



De-identify private user data and clean dataset



Select random 1% sample for n-Gram based content analysis

# Methodology: Analysis



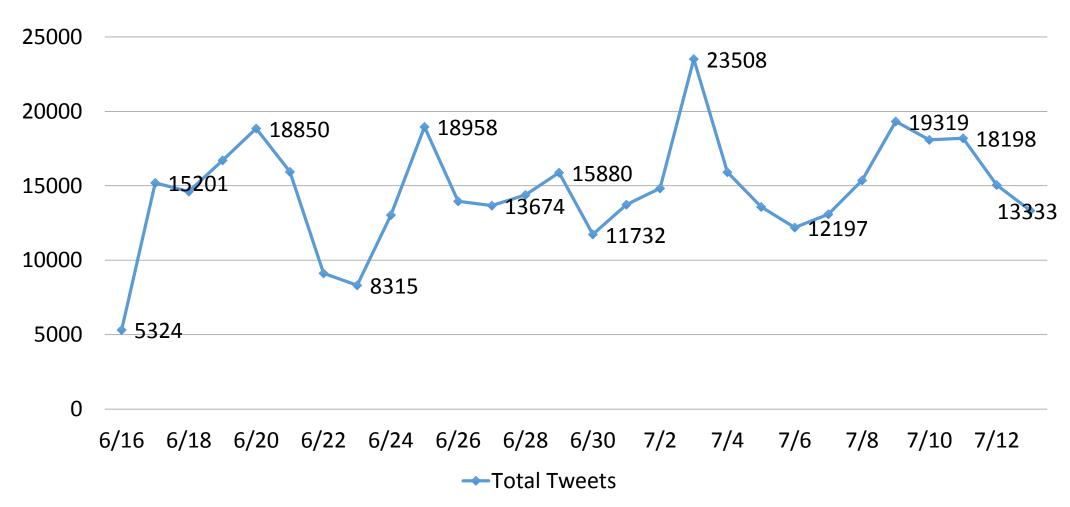
Code 1% sample tweets "positive," "negative," "neutral"



#### Calculate

- Frequencies by search term (total, per day)
- N-Gram frequencies

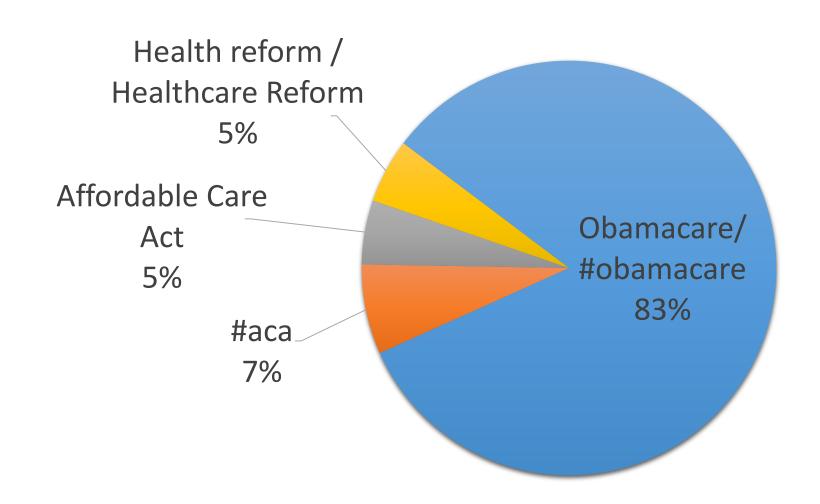
# Results: Total Tweets Referencing ACA



# Results: Public Sentiment about ACA

Concept	% of Sample	Sentiment
Senators Cruz and Lee introduce bill to defund Affordable		
Care Act	21.48%	Negative
Employer Mandate Extended	15.05%	Mixed
Koch brothers invest millions into Obamacare misinformation		
campaign	13.64%	Mixed
Demystifying affordable care act	11.38%	Positive
Obamacare delay - onus on honor system	10.39%	Negative

# Results: Distribution of Tweets about the ACA (n=411,916)



### Results:

Influence varies by measure but reflects some trends

Most RTs

Kathleen Sebelius

userID-10921

Sen. Mike Lee

Marco Rubio

Sean Hannity

Most User Mentions

WebMD

Forbes

theHill

Sen. Ted Cruz

Greatest Reach

WebMD

The White House

Fox News

HHS.gov

Most Timeline Deliveries

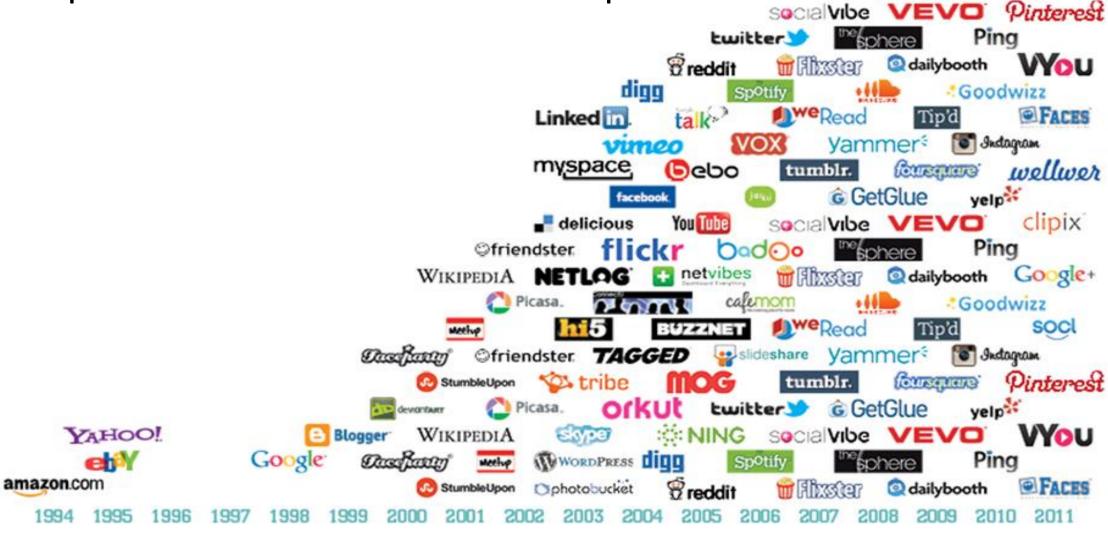
The White House

Mayo Clinic

WebMD

CSPAN

## Implications and Next Steps



Google+

soci

3 Indagram

yelp

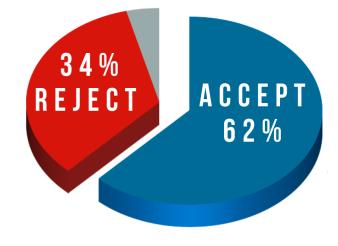
foursquare

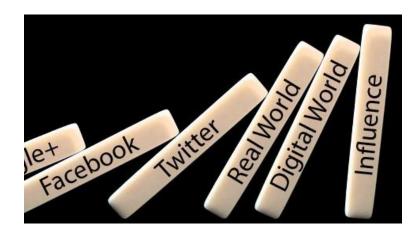
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# Policy Relevance

- New opportunities for the use of Big Data in public policy research
- Monitor public opinion on relevant policy issues or questions
- Shape public opinion by understanding levers of influence







# Thank you

For further information, please contact us at:

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