The Twitter Political Index

Supplemental Report: Launch Edition

A TWITTER @GOV PROJECT POWERED BY

TOPSY

Introduction

The Twitter Political Index is a daily measurement of Twitter users' feelings towards the presidential candidates. Topsy computes the Twitter Political Index by analyzing over 400 million Tweets in real-time every day and applying proprietary Topsy social sentiment analysis to nearly 2 million Tweets about the candidates each week.

The Index lends new insight into the feelings of the electorate, but is not intended to replace traditional polling — rather, it reinforces it. Just as new technologies like radar and satellite joined the thermometer and barometer to give forecasters a more complete picture of the weather, so too can the Index join traditional methods like surveys and focus groups to paint a more complete picture of the political forecast.

Methodology

With the world's largest public index of social media posts, Topsy has developed accurate sentiment analysis by studying more than 100 billion Tweets. Using tens of thousands of human classifications, Topsy's social sentiment analysis has been tested to agree with human classification over 90 percent of the time. Further, in comparing to political polls for the past year, the Twitter Political Index was shown to be a valuable leading indicator of public opinion.

The Twitter Political Index is calculated for each of the presidential candidates taking into account both the mentions of the candidate's last name (i.e. 'obama' and 'romney') and any direct mentions of the candidate's official Twitter account (i.e. @barackobama and @mittromney).

Topsy's social sentiment analysis technology puts the sentiment for the candidates in context by looking at how positively they are talked about compared to all other terms on Twitter that day. Therefore, the Index can be thought of as a percentile score; this means that if a term has a score of 80, Tweets about that term were more positive than roughly 80 percent of all other terms mentioned on Twitter that day. This greatly increases the accuracy of the sentiment scoring. The use of more than 100 billion Tweets also enables Topsy to properly classify the more informal and abbreviated language found on Twitter. This includes negation, colloquial language, acronyms or other short-form internet expressions, as well as the use of sarcasm.

Additional Data & Analysis

In this report, we include the following supporting data and further analysis:

- Historical Twitter Political Index data for President Obama and Mitt Romney, May – July, 2012
- Comparison of Twitter Political Index for Obama with the Gallup Job Approval poll for the past 2 years
- Twitter Political Index by Red, Blue and Swing states, May – July 2012
- Twitter Political Index broken out by topic: the Economy, Healthcare, and Defense & Foreign Policy, May – July 2012

Topsy will publish additional reports throughout the campaign period at topsylabs.com/election.

Historical Twitter Political Index data

Shown below is a chart of the Twitter Political Index for both candidates since May 2012. You can see the Twitter Political Index values spiking with major positively received events, such as:

- May 9th, 2012: President Obama announces support for same-sex marriage.

- June 28th, 2012: Supreme Court upholds Obama's Affordable Care Act.

The Twitter Political Index
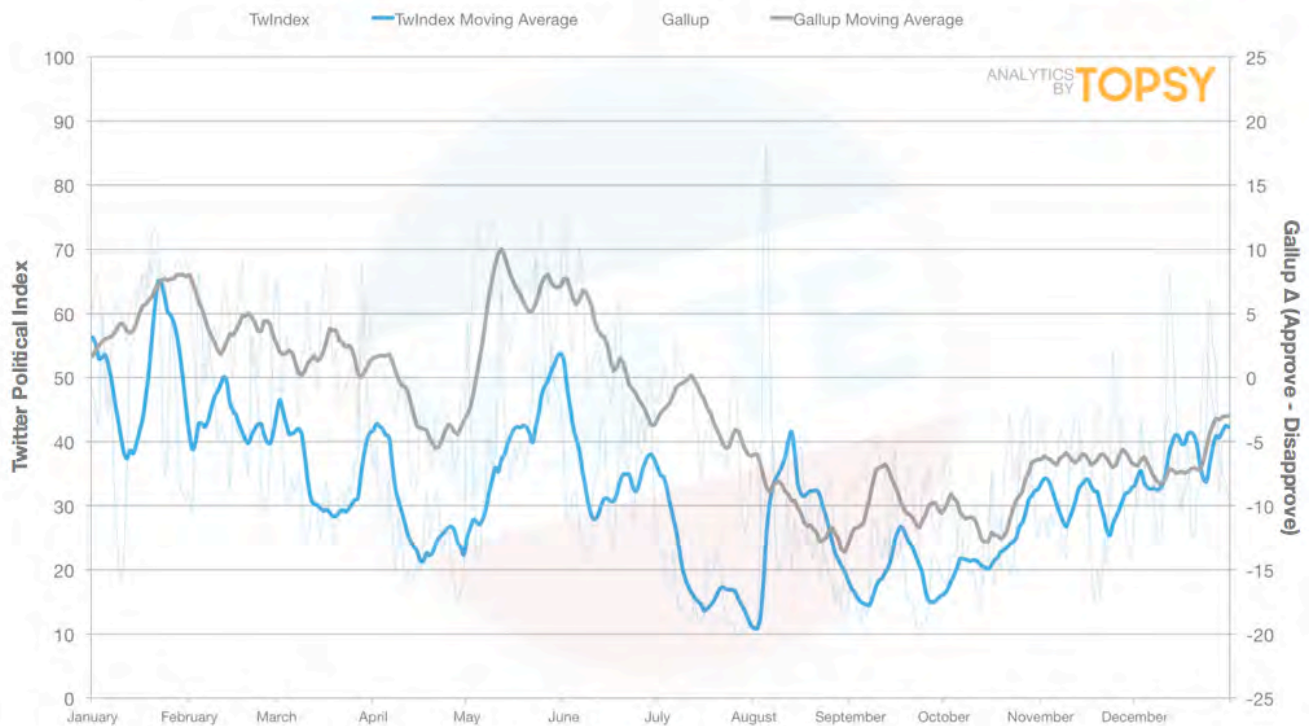### May 1, 2012 to July 30, 2012
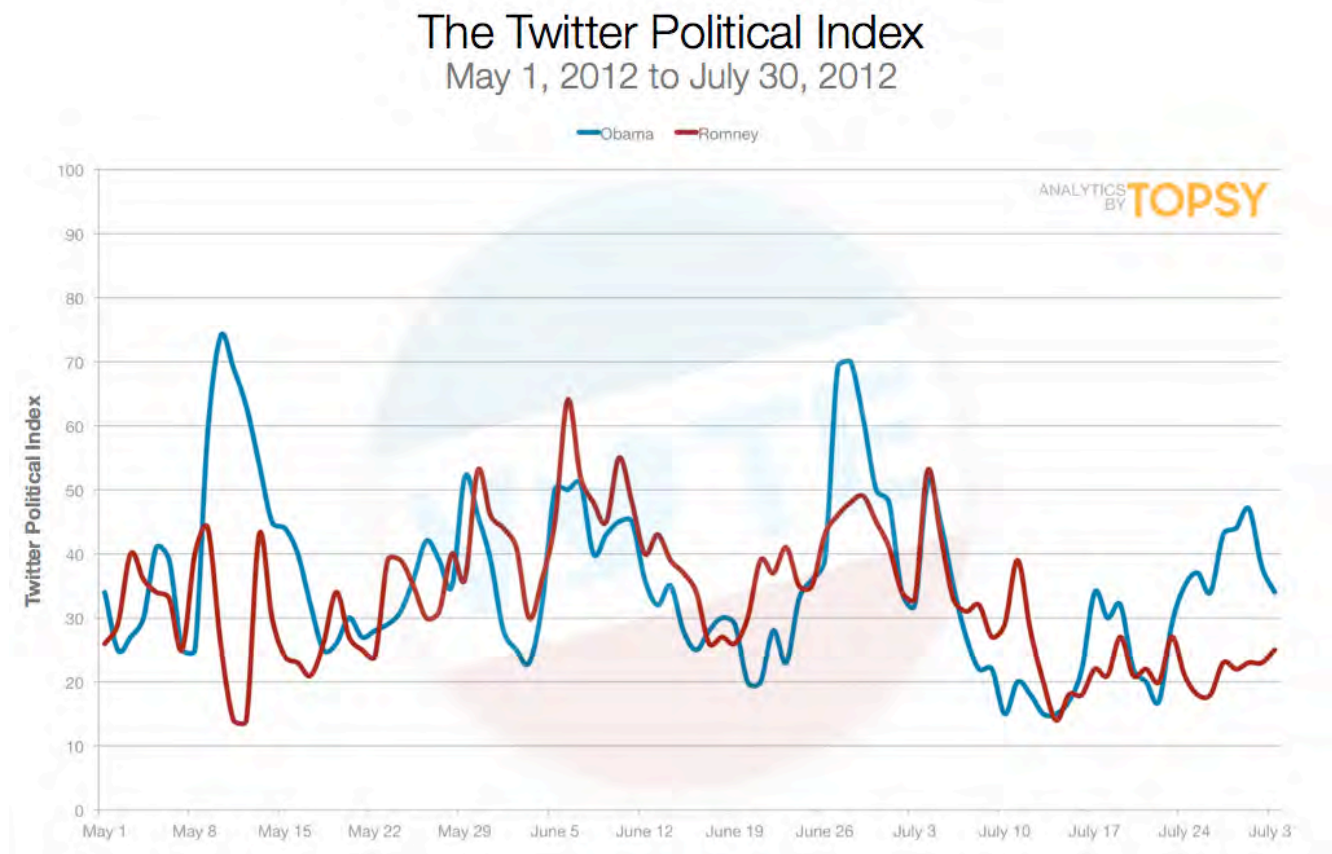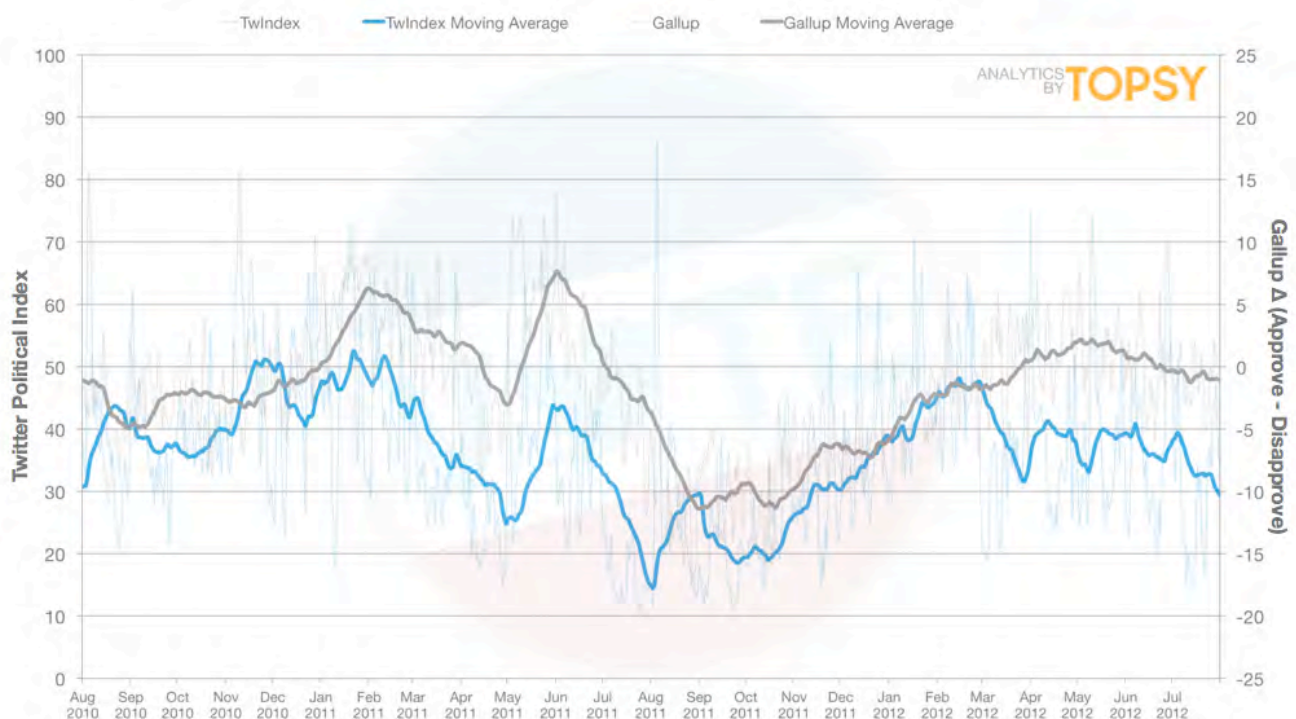
A comparison to Gallup, 2010 – 2012

Below, we show 3 charts comparing the Twitter Political Index for Obama with Gallup data on job approval for the president. The Gallup data is based on a 3-day rolling average. Gallup tracks daily the percentage of Americans who approve or disapprove of the job Barack Obama is doing as president. The data shown is the net approval percentage (i.e. percentage of Americans who approve minus percentage of those who disapprove).

The Twitter Political Index data was aligned with the end date of the 3-day sample. For days on which Gallup did not issue a number (holidays and weekends), we used the average of the day before and the day after. The chart below shows a 10-day moving average trendline for calendar year 2011. The second chart compares Gallup and the Twitter Political Index with a 30-day moving average trendline from August 2010 to July 2012. The charts show a strong correlation between the two measures. For a majority of the time, we also found the Twitter Political Index to be a leading indicator for the Gallup approval ratings.

Twitter Political Index: A Comparison to Gallup
### with 10-day moving averages — January 1, 2011 - December 31, 2011

TwIndex   TwIndex Moving Average   Gallup   Gallup Moving Average

with 30-day moving averages — August 1, 2010 - July 31, 2012

TwIndex   TwIndex Moving Average   Gallup   Gallup Moving Average

Finally, the same 2-year comparison with 30-day moving average trendline is shown with adjusted axes to align the averages of both data series. Namely, the Twitter Political Index series is centered around its average, 36, and the Gallup series is centered around its average, -2. This alignment better illustrates when Obama is over- or under-performing against his historical average in one model or the other.

Twitter Political Index: A Comparison to Gallup
with 30-day moving averages — August 1, 2010 - July 31, 2012
Axis range adjusted to center respective data set averages.

2-yr avg TwIndex: 36
2-yr avg Gallup Δ: -2
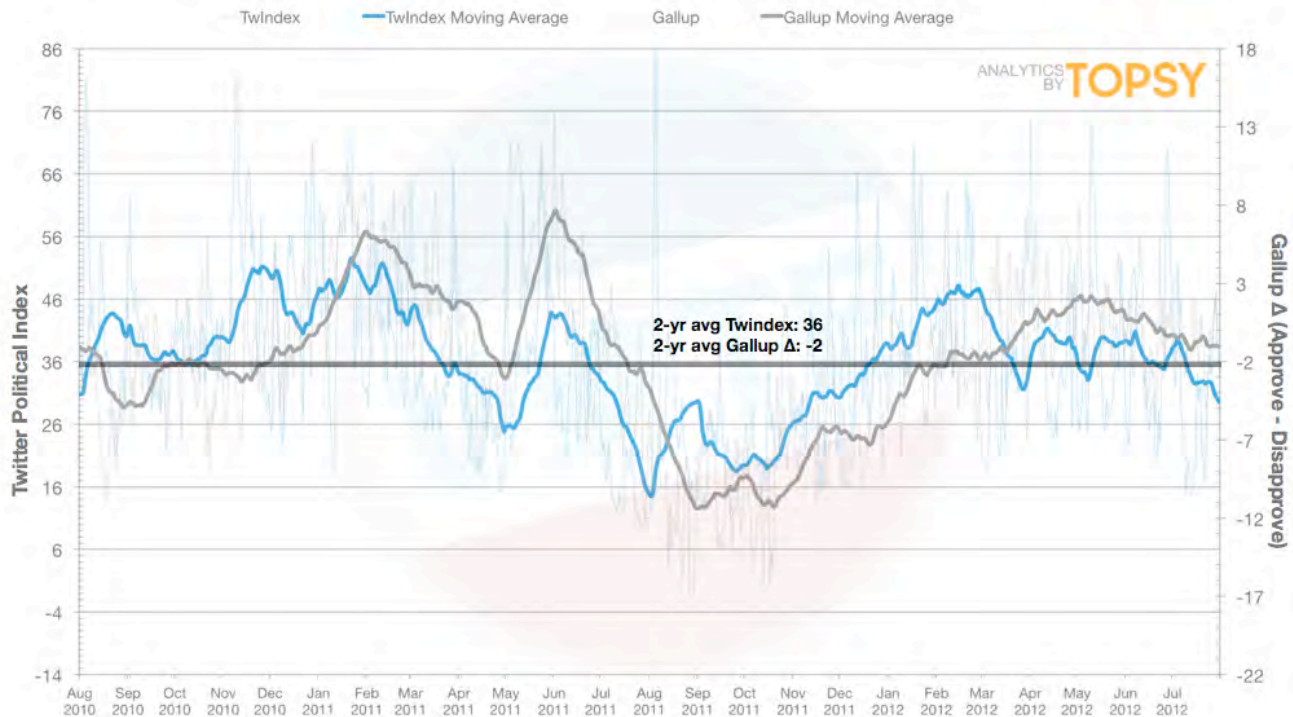
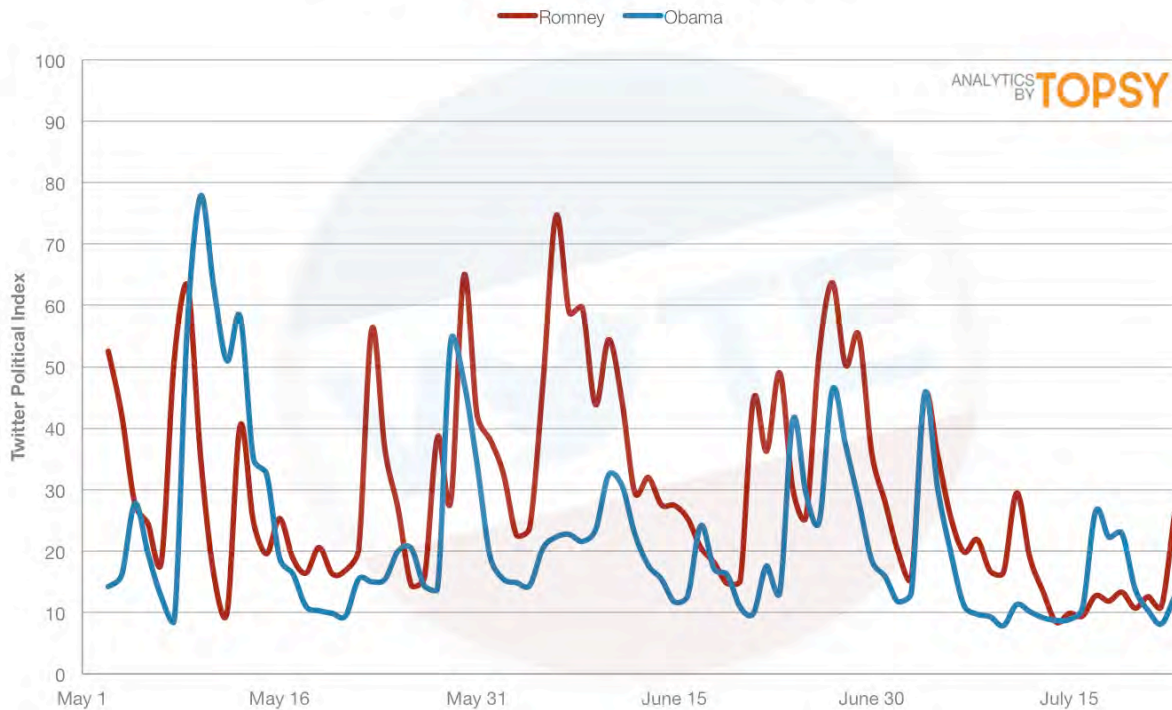# Twitter Political Index by Red, Blue & Swing states

By using GPS geotagging and other signals, Topsy's geoinference algorithms can determine a location for Twitter users based in the US at a state-level with a high level of accuracy. The Tweets about each candidate are divided into 3 pools: Red, Blue and Swing states, resulting in data sets that heavily oversample users from these groups of states. The states used for each pool are listed below:

- **Red (Solid Republican):** Alaska, Idaho, Montana, Wyoming, Utah, Arizona, North Dakota, South Dakota, Nebraska, Kansas, Oklahoma, Texas, Missouri, Arkansas, Louisiana, Kentucky, Tennessee, Mississippi, Alabama, Georgia, South Carolina, West Virginia, Indiana.

- **Blue (Solid Democratic):** Washington, Oregon, California, Hawaii, Minnesota, Illinois, Maryland, Delaware, DC, New Jersey, New York, Vermont, Massachusetts, Connecticut, Rhode Island, Maine.

- **Swing:** Nevada, Colorado, New Mexico, Iowa, Wisconsin, Michigan, Pennsylvania, Ohio, North Carolina, Virginia, New Hampshire, Florida.

The charts below show the Twitter Political Index per candidate in each of these pools in the past 3 months.
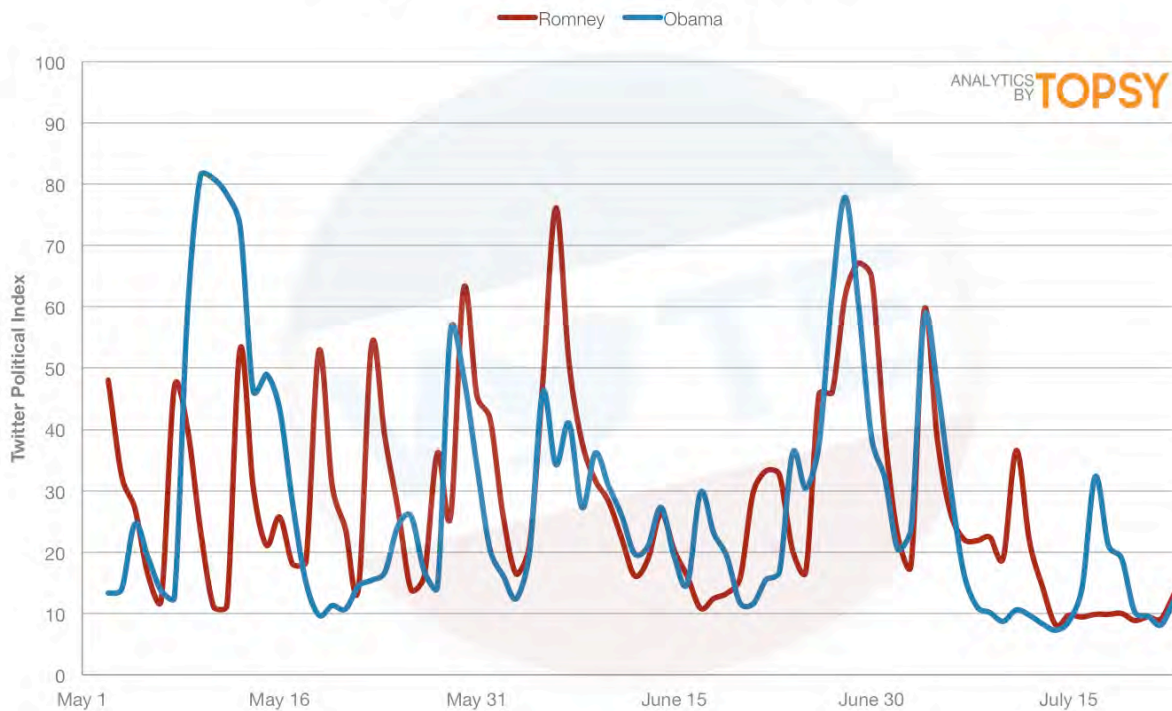
Twitter Political Index: Red states
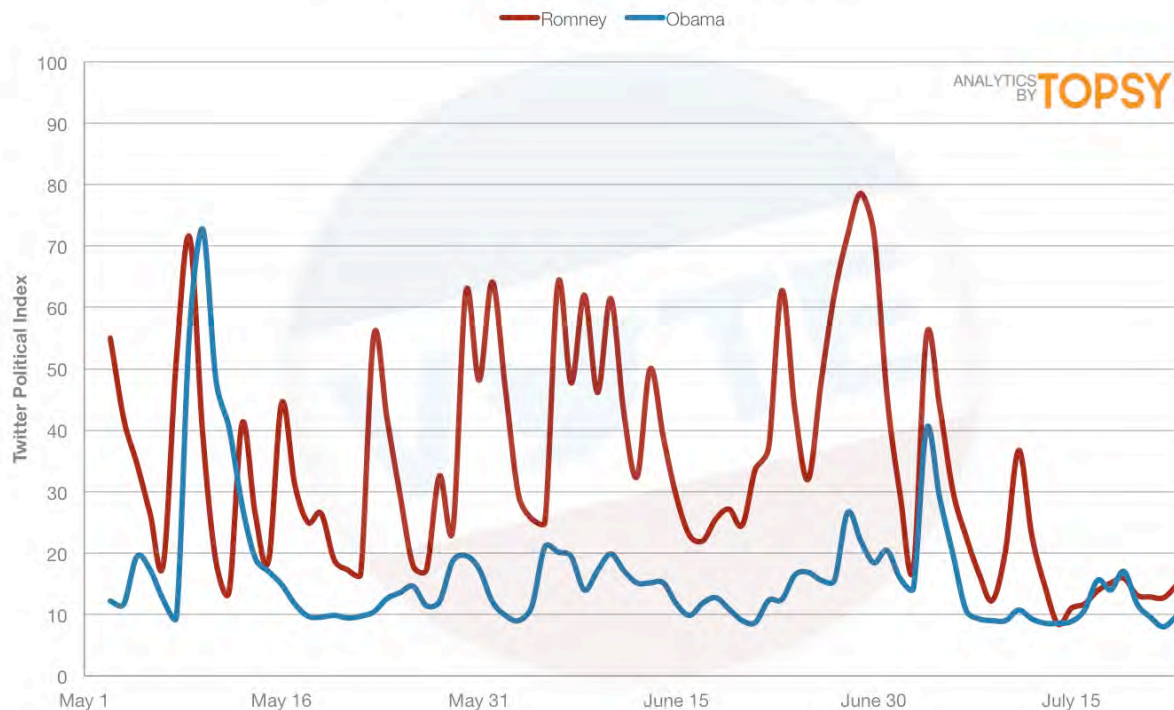### Topsy analysis for May 3 - July 23, 2012

— Romney — Obama

Twitter Political Index: Blue states
Topsy analysis for May 3 - July 23, 2012

— Romney — Obama

Twitter Political Index: Swing states
Topsy analysis for May 3 - July 23, 2012

Twitter Political Index by topic: the Economy, Healthcare, Defense & Foreign Policy

The Tweets about each candidate were also divided into different topical sets of words to analyze social sentiment on Twitter for each candidate in specific campaign issues that are very much talked about at the moment. The issues selected were: the Economy, Healthcare and Defense & Foreign Policy.

For each selected issue, the following words were used:

- **the Economy:** Jobs, Debt, Middle Class, Home, Unemployment, Wall Street, Budget, Deficit, Unemployed, Small Businesses, #jobs, Manufacturing, Employment, Housing, Jobless, Mortgage, Factory.

- **Healthcare:** Health, Healthcare, Obamacare, Mandate, Insurance, #obamacare, #Aca, Medical, Affordable Care, Medicare, #fullrepeal, Aca, Romneycare, Doctor, Doctors, Uninsured.

- **Defense & Foreign Policy:** Afghanistan, China, Syria, Hollande, Overseas, Defense, Nato, Troops, Merkel, Cameron, Iraq, Air Force, Navy, Soldiers, Army, Eurozone, Austerity, Abroad, Middle East, Marines, Surge.

The charts below show the Twitter Political Index as determined for each candidate on these issues in the past 3 months. It is interesting to note that overall sentiment for both candidates on the economy is very negative throughout the entire period, whereas there is a heated debate in healthcare – particularly in the days leading up to and immediately following the Supreme Court decision on Obama's health care plan.
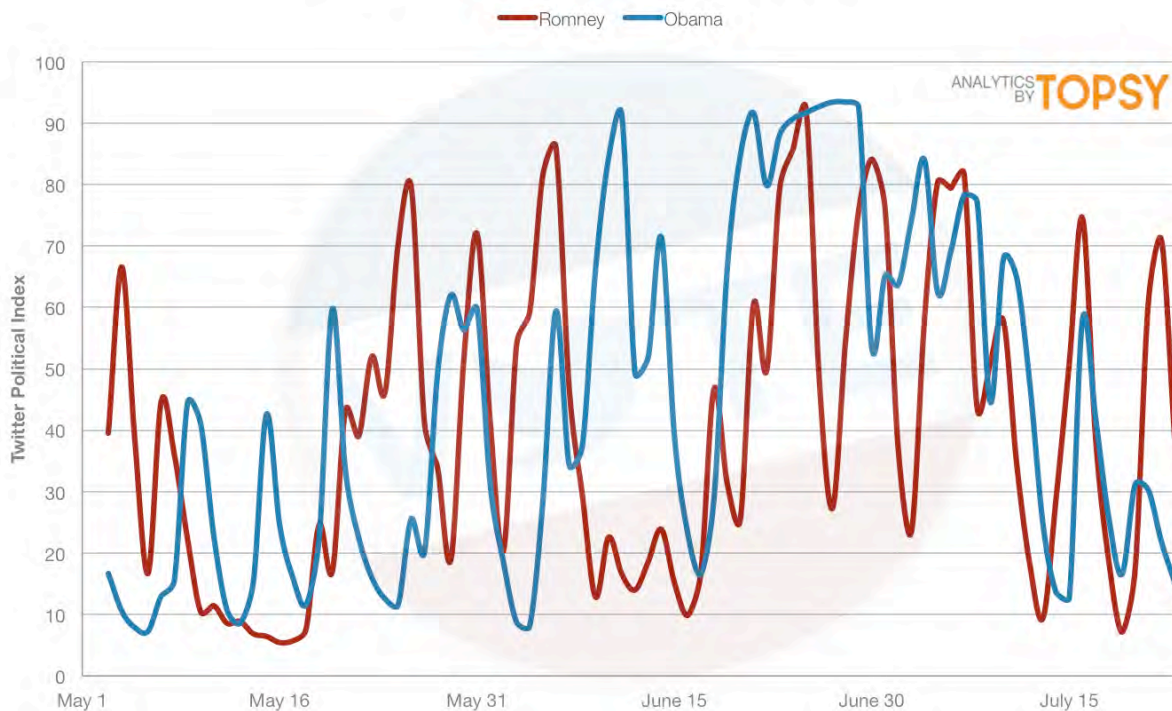
Twitter Political Index: the Economy
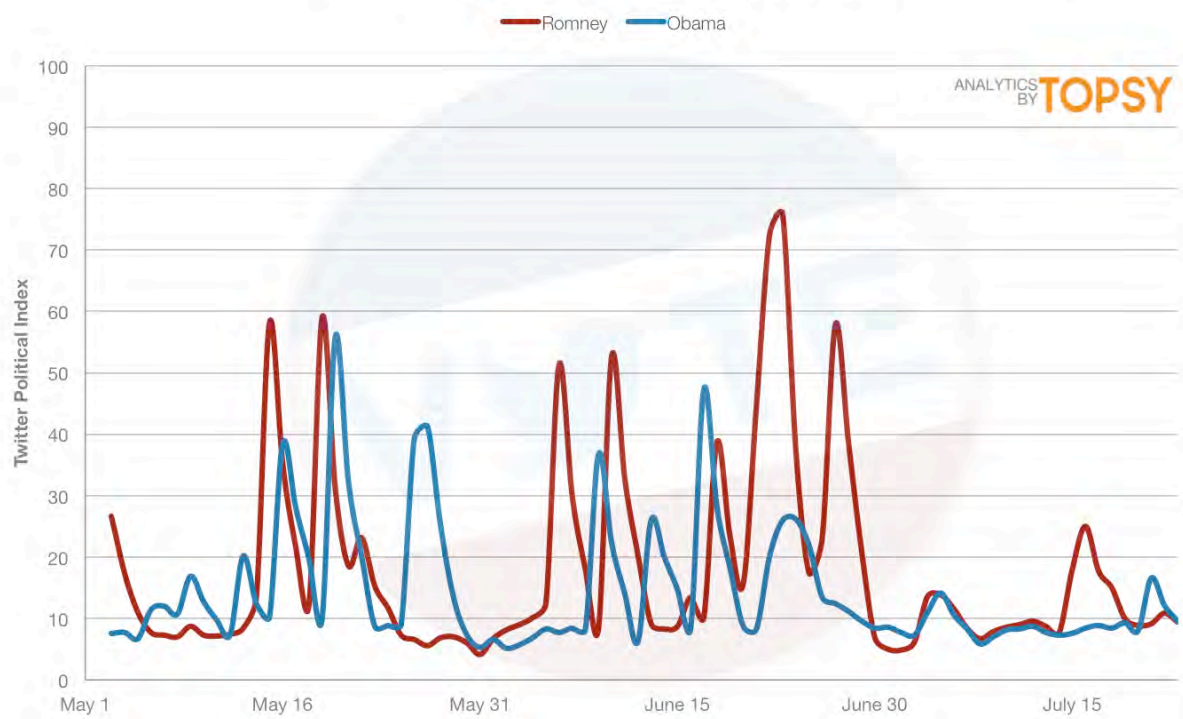### Topsy analysis for May 3 - July 23, 2012

— Romney — Obama
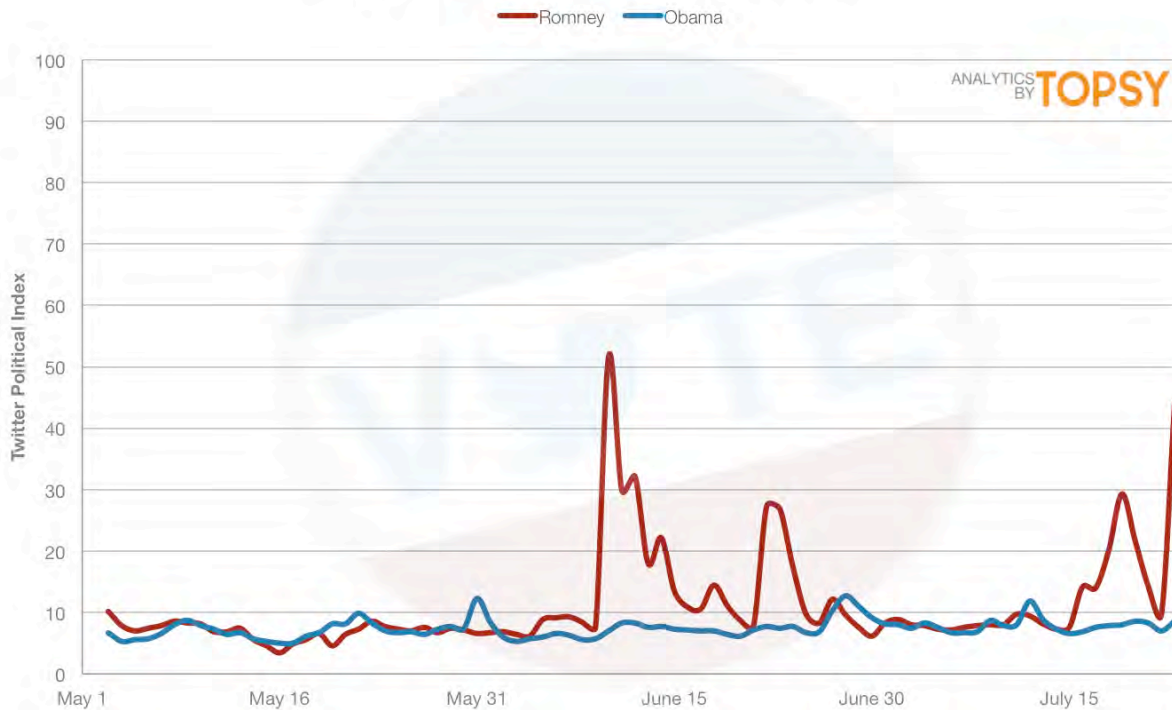
Twitter Political Index: Healthcare
Topsy analysis for May 3 - July 23, 2012

— Romney — Obama

Twitter Political Index: Defense & Foreign Policy
Topsy analysis for May 3 - July 23, 2012

About the partners

Topsy

Topsy operates the world's only index of the public social web. Topsy provides comprehensive analyses of hundreds of billions of Tweets and leverages these social conversations to index, analyze and rank content on web pages across millions of unique sites. With instant access to conversations from moments ago or years ago, Topsy enables users to discover, quantify, predict and make decisions using the world's most powerful social analytics. Topsy's offerings are used by some of the largest global marketing, news, entertainment, and financial organizations to design and optimize content and communication, stay on top of breaking events, quantify market trends and customer feedback, measure competitor mindshare and predict what's about to happen. Headquartered in San Francisco, Topsy is backed by BlueRun Ventures, Ignition Partners, Founders Fund and Scott Banister. For more information visit: http://www.topsylabs.com

Twitter

Founded in March 2006 and launched in July 2006, Twitter is a real-time information service on which people post ideas, comments and news in 140 characters or less. Twitter brings users closer to the topics, events, and people they care most about around the world. The service can be accessed through a variety of methods, including Twitter's website; text messaging; instant messaging; and desktop, mobile, and web applications. Based in San Francisco, Twitter is available around the world in 30 languages, with 140 million active users and 400 million Tweets per day. Visitwww.twitter.com or follow @twitter for more information. For updates on the Twitter Political Index, follow @gov.

The Mellman Group

Recently named "Pollster of the Year" for the second time by the American Association of Political Consultants, The Mellman Group has provided sophisticated opinion research and strategic advice to political leaders, public interest organizations, Fortune 500 companies, and government agencies for over thirty years. The Mellman Group counts among its clients Democratic Leaders in both the U.S. Senate and House (Senate Majority Leader Harry Reid and House Whip Steny Hoyer) and the former Chair of the Democratic Governors' Association (Governor Brian Schweitzer). We have helped elect eighteen U.S. Senators, over two dozen House members, nine Governors, half a dozen Mayors, and have won key initiative campaigns around the country.

Northstar Opinion Research

North Star Opinion Research, formerly Ayres, McHenry & Associates, is a national public opinion research firm located in Alexandria, VA. The firm conducts surveys and focus groups across the country for associations, non-profits, corporations, and Republican candidates for office at all levels.
Roll Call, a widely-read newspaper on Capitol Hill, calls the firm "one of the best in the nation," and Campaigns and Elections magazine has profiled President Whit Ayres and Vice President Jon McHenry as two of the political world's "movers and shakers," and in 2012 named Vice President Dan Judy a "Rising Star" of the political consulting industry. The American Association of Political Consultants recognized North Star as the Republican Pollster of the Year in 2012.
Whit Ayres, Founder and President of North Star, is the current Chairman of The American Association of Political Consultants, a bi-partisan group of national political and public affairs professionals, and co-founder (with former RNC Chairman Ed Gillespie) of Resurgent Republic, a research and educational organization that crafts creative conservative political messages for the 21st century.