

Tweet Recall: Examining Real-time Civic Discourse on Twitter

Christopher M. Mascaro
Drexel University
iSchool
cmascaro@gmail.com

Alan Black
Drexel University
iSchool
aebblack@gmail.com

Sean Goggins
Drexel University
iSchool
outdoors@acm.org

ABSTRACT

We present a preliminary analysis of #widebate, a hashtag to identify discourse related to two debates in the June 2012, Wisconsin Gubernatorial recall election. Our analysis identifies the differences in discourse between the two debates. We find that only 14% of individuals participate in discourse surrounding both of the debates. Further, we identify differences in the way that the most active individuals in the discourse utilize syntactical features. Our findings contribute to the limited literature examining technologically-mediated discourse related to political debates.

Categories and Subject Descriptors

J.4 [Social and Behavioral Sciences]: Sociology

Keywords

Twitter, political discourse, social media, elections, civic engagement

1. INTRODUCTION

Civic debate has been one of the foundations of society throughout history. Electoral debates in the United States have evolved significantly over time and allow citizens to learn about candidates leading to more informed decisions [4]. Until the introduction of the Internet, analysis of citizen discourse related to debates relied on questionnaires, surveys and focus groups [5].

Twitter allows for examination of the public's response to electoral debates in near real-time. Research that has examined Twitter in the context of electoral debates has focused on identifying topics of the debate [3] and the individuals and content of the debate [7; 8]. Much of this research has been situated in larger discourses that examine Twitter as a back channel to live TV discourse [2]. Although previous research has examined electoral debates in an attempt to identify topical content, no prior research examines the participants in the discourse outside the context of analysis of mentions in the tweet text [7]. Understanding how individuals contribute to the discourse is important in understanding how technology facilitates civic engagement.

2. CONTEXT AND DATASET

Wisconsin Governor Scott Walker was elected in November 2010, but faced a recall election on June 5, 2012. Governor Walker won the recall election by a 53%-46% margin. In the two weeks before the election, Governor Walker debated his opponent (Milwaukee Mayor Tom Barrett) twice, May 25 and May 31. The hashtag #widebate was used to mark discourse pertaining to the

Permission to make digital or hard copies of all or part of this work for personal or classroom use is granted without fee provided that copies are not made or distributed for profit or commercial advantage and that copies bear this notice and the full citation on the first page. To copy otherwise, or republish, to post on servers or to redistribute to lists, requires prior specific permission and/or a fee.

GROUP '12, October 27–31, 2012, Sanibel Island, Florida, USA.

Copyright 2012 ACM 978-1-4503-1486-2/12/10... \$15.00.

debates on Twitter.

We used the TwitterZombie architecture to query the Twitter SEARCH API every minute for tweets with the hashtag #widebate from May 21st – June 12th [1]. In total, 26,107 tweets were collected. These tweets were divided into two datasets to examine the difference between the two debates. Tweets that occurred up until May 29th at 12:00am were deemed to be associated with the May 25th debate (n=10,958), while all of the tweets following that time were deemed to be associated with the May 31st debate (n=15,149). All analysis was done using custom-built R scripts based on previous work by the authors [6].

3. FINDINGS

In total, 6,012 unique individuals contributed to the discourse using the #widebate hashtag, with 3,125 participating in the first debate and 3,780 participating in the second debate. Table 1 illustrates the syntactical feature utilization for the two debates.

	Tweet Count	Links	Mentions	@Reply	Retweets
First Debate	10,958	21.30%	70.12%	5.18%	57.28%
Second Debate	15,149	22.77%	65.77%	4.31%	53.11%

Table 1: Syntactical feature utilization by all users

We identified 893 individuals (14.9%) that participated in both of the debates. We coded these individuals who participated in both debates as: singletons (tweeted once in each debate), moderate (tweeted once in one debate and more than once in the other) or active (tweeted more than once in each debate). Table 2 illustrates the categorical distribution of the individuals that participated in both debates. A small percentage (13%) of individuals participating in both debates only participated in each dataset once, while almost 50% of the individuals did so multiple times.

Category	Participants	Percentage
Singleton	116	13%
Moderate	333	37.4%
Active	444	49.7%

Table 2: Individuals who participated in Two Debates

3.1 Examining the Active Citizen

To further understand the most prolific individuals in the two debates, we examine the top 10 contributors the two debates. There were only three individuals that were in the top 10 in both debates, illustrating diversity in participants in the debate discourse. Table 3 and 4 denote the description, number of tweets

in the dataset and the number of total tweets from when the account was first created through June 25th, 2012 in the two debates. Individuals that participated in more than one debate are noted with *.

User Description	First Debate	Total Tweets
Conservative Citizen/Blogger	115	124,253
Conservative Citizen	104	3,596
Women's Rights Advocate	78	61,555
Education Advocacy Org *	72	9,307
Conservative Citizen *	61	14,903
Conservative Citizen	61	2,385
Conservative Citizen	58	13,365
Liberal Citizen *	57	23,677
Conservative Organizer	54	13,991
Progressive Political Blogger	54	292,825

Table 3: Top 10 "Active" Individuals in First Debate

We see that these individuals were not only active in the debate, but were heavy Twitter users. The number of tweets from each of the individuals ranged from 2,385 -292,825 as of June 25, 2012 (mean = 36,277, median = 14,447). These high numbers indicate that these individuals have sustained Twitter accounts and are familiar with the syntactical features of the technology.

User Description	Second Debate	Total Tweets
Conservative Citizen	109	9,632
Family Advocacy Org	104	5,398
Education Advocacy Org *	90	9,307
Conservative Citizen *	89	14,903
Liberal Citizen	87	11,456
Liberal Citizen	82	21,684
Liberal Citizen	80	43,574
Conservative Citizen	74	10,069
Liberal Citizen/Guest Blogger for Liberal Blogs	71	15,986
Liberal Citizen *	68	23,677

Table 4: Top 10 "Active" Individual in Second Debate

Table 5 illustrates the breakdown of the syntactical feature utilization of the active users. The percentages represent the total usage of all of the 17 active members that we identified in Tables 3 and 4 from above. What is of most interest is that the most active users appear to use Twitter differently than the overall population in the two debates. We see that active participants use links much less than the overall population and also use mentions and retweets less.

	Tweet Count	Links	Mentions	@Reply	Retweets
First Debate	698	14.76%	65.76%	5.44%	55.87%
Second Debate	941	12.22%	51.01%	7.12%	37.41%

Table 5: "Active" user syntactical breakdown

Looking at the change from the first to the second debate, the most significant change is the decrease in mentions and retweets along with the increase in @Reply's, illustrating conversational behavior by the most active members of the dataset. Analysis of

the tweets in the second debate illustrates that the tweets are significant contributions to the discourse. Each of the tweets averaged 15.5 words. This length coupled with the limited use of links or retweets and a preliminary analysis of the comments demonstrates that the individuals are providing substantive commentary.

4. CONCLUSION AND FUTURE WORK

This poster is an analysis of the use of one hashtag in two distinct, yet related, events in a short time period. We see that only 14% of the total participants participated in both debates. Examining the most active individuals highlights some very interesting findings.

First, analysis of the individual profiles indicates that none of the individuals who are the most active belong to a traditional media organization. This indicates that the most active individuals in the debates are citizens that are civically engaged. Second, we see that frequent contributors use Twitter's syntactical features differently and these patterns change between the two debates. Third, we see that the most active individuals are ideologically diverse based on their profiles and comments.

Our work contributes to the growing body of literature on backchannel communication. The local nature of the broadcast coupled with the national interest of the overall election provides an interesting context for examining discourse in a medium such as Twitter. This analysis helps to illustrate that social media tools may be vehicles for technologically mediated civic engagement, but further analysis is required to understand how and to what extent.

5. REFERENCES

- [1] Black, A., Mascaro, C., Gallagher, M., and Goggins, S. 2012. TwitterZombie: Architecture for Capturing, Socially Transforming and Analyzing the Twittersphere. ACM Group, October 27-31, 2012, Sanibel Island, FL.
- [2] Doughty, M., Rowland, D., and Lawson, S. 2011. Co-viewing Live TV with Digital Backchannel Streams. EuroITV.
- [3] Hu, Y., John, A., Seligmann, D. D., and Wang, F. 2012. What Were the Tweets About? Topical Associations between Public Events and Twitter Feeds. ICWSM. 6th, 154-161.
- [4] Jamieson, K. H. and Birdsell, D. S. 1990 Presidential Debates: The Challenge of Creating an Informed Electorate. Oxford University Press, USA.
- [5] Lanoue, D. J. and Schrott, P. R. 1989. Voters' Reactions to Televised Presidential Debates: Measurements of the Source and Magnitude of Opinion Change. Political Psychology. 10, 2, 275-285.
- [6] Mascaro, C. and Goggins, S. 2012. Twitter as Virtual Town Square: Citizen Engagement During a Nationally Televised Republican Primary Debate. 2012 American Political Science Association Annual Meeting. August 30-September 2, 2012, New Orleans, LA.
- [7] Shamma, D. A., Kennedy, L., and Churchill, E. F. 2009. Tweet the debates: understanding community annotation of uncollected sources. Proceedings of the first SIGMM workshop on Social media. 3-10.
- [8] Shamma, D. A., Kennedy, L., and Churchill, E. F. 2010. Conversational Shadows: Describing Live Media Events Using Short Messages. Proceedings of the 4th ICWSM.