Conference Proceedings

YouTube and the 2008 Election Cycle

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“YouTube and the 2008 Election Cycle in the United States”

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April 16 – 17, 2009

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University of Massachusetts Amherst
Michael A. Xenos
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Letter from the Conference Chairs

Welcome to the University of Massachusetts (UMass) Amherst and the 1st Annual Journal of Information Technology & Politics conference, “YouTube and the 2008 Election Cycle in the United States.” We hope the next two days will inspire you to think critically about the role of new media in political campaigns and will encourage the formation of new and exciting research collaborations.

Specifically, we intend for the conference to act as the first step toward creating an active, interdisciplinary research community in this area. To that end, we invite you to join the conference Crowdvine site at http://youtube08election.crowdvine.com/. This social network will remain active after the conference and, we hope, will allow you to further explore the research presented here.

The Program Committee has worked diligently over the past year to put together a truly exciting program that brings together both social and computer scientists. We believe this interdisciplinary approach is what makes the conference so valuable and is what will make it a model for future workshops, symposia, and conferences.

The conference is generously supported by grants from the National Science Foundation (SES-0903886) and from the Research Leadership in Action Program in the Office of the Vice Chancellor for Research and Engagement at UMass Amherst. We wish to acknowledge the support of Andy Barto and the Department of Computer Science, John Hird and the Department of Political Science, and M.V. Lee Badgett and the Center for Public Policy and Administration at UMass Amherst for their generous support, as well as Panopto, the Journal of Information Technology & Politics, TubeKit, the College of Social and Behavioral Sciences at UMass Amherst, the Qualitative Data Analysis Program, the National Center for Digital Government, the Communication Department at UMass Amherst, and the Science, Technology and Society Initiative for their sponsorship. As always, any opinions, findings, conclusions or recommendations here are those of the author(s) and do not necessarily reflect the views of the sponsors.

Again, welcome to UMass, and enjoy the conference!

Sincerely,

Stuart Shulman
Conference Co-chair

Michael Xenos
Conference Co-chair
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Ute Pannen, Carl von Ossietzky University
Digital Methods

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Abstract

Digital studies on culture may be distinguished from cultural studies of the digital at least in terms of method. The lecture takes up the question of the distinctiveness of ‘digital methods’ for researching Internet cultures. It asks, initially, should the methods of study change, however slightly or wholesale, given the specificity of the new medium? The larger digital methods project thereby engages with ‘virtual methods,’ the current, dominant ‘e-science’ approach to the study of the Internet, and the consequences for research of importing standard methods from the social sciences in particular. What kinds of contributions are made to digital media studies, and the Internet in particular, when traditional methods are imported from the social sciences and the humanities onto the medium? Which research opportunities are foreclosed? Second, I ask, what kinds of new approaches are worthwhile, given an emphasis on the ‘natively digital’ as opposed to digitization. The goal is also to change the focus of humanities and humanities computing away from the opportunities afforded by transforming ink into bits, and instead inquires into both the ‘born digital’ as well as digital-only cultures, that is, the ‘technicity of content’ and the environments that sustain it. In all, the effort is to develop and disseminate novel approaches to the study of natively digital objects (the link, the tag, etc.) and devices (engines and other recommendation machines). It does so by critically reviewing existing approaches to the study of the digital, and subsequently by proposing research strategies that follow the medium. That is, how do digital objects and the devices that capture them change the order of things? How may one demonstrate the ‘media effects’ of a device-centric information culture? The lecture launches a novel strand of study, digital methods.
Abstract

Recent advances provide comprehensive digital traces of social actions, interactions, and transactions. These data provide an unprecedented Exploratorium to model the socio-technical motivations for creating, maintaining, dissolving, and reconstituting knowledge and social networks. Using examples from research in a wide range of activities such as disaster response, digital media and learning, public health and massively multiplayer online games (WoW - the World of Warcraft), Contractor will propose how YouTube can serve as a testbed to help advance our understanding of the emergence of social and knowledge networks.
Going Viral – The Dynamics of Attention

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Abstract

A predominant story about YouTube is 'going viral'. 'Going viral' is about dynamics; changes in views of videos through time. The paper begins with a question about how to move the phrase from vernacular to a concept that political scientists might use. By looking at three possible interpretations of the phrase, I show that the 2008 campaign videos of McCain and Obama were unlikely to be characterized as 'going viral.' However, viewing the campaign videos does have a very regular dynamics that can be conceptualized straightforwardly and represented in a simple dynamics equation. By examining each of the approximately 800 videos of the campaign the regularity in the dynamics of viewing these videos is demonstrated. After setting out the general pattern I look at interaction between videos in the campaign that seems to preclude going viral. The final point is that an examination of the impact of exogenous factors needs to start with the general pattern to estimate that impact otherwise the standard/expected views is confounded in the treatment of the exogenous factor.
The predominant stories about the web are “going viral” and “the long tail.” Going viral is a story about the dynamics of attention. And the dynamics of attention to the videos the McCain and Obama campaigns posted on YouTube is the focus of this report. How the number of views changed through time is the question being addressed. The long tail is addressed in another report (Boynton, November 1, 2008).

The web was designed by Tim Berners-Lee in 1990 and went “public” in 1991. However, video on the web did not come into its own until 2005, which was too late for the 2004 presidential election. Neither Bush nor Kerry did much with video on the web in the 2004 election. It was not until bandwidth reached a level that could carry video and YouTube was able to do the aggregating and distributing that video on the web took off. Thus, 2008 was the first presidential election that video on the web was a possible campaign strategy. By the end of 2008 more people said they got most of their news for national and international affairs from the web, 40 percent, than from newspapers, 35 percent. The web trailed far behind television, which 70 percent said was their chief source of news, but for people younger than 30 the web was said to be the primary source of news as frequently as television (Pew, December 23, 2008).

The presidential candidates, especially the Obama campaign, recognized the importance of video on the web, and set up channels on YouTube where their videos were freely available. Between July 1 and the election the Obama campaign posted almost 800 videos on YouTube and the McCain campaign posted just over 100 there. And viewers came: the Obama videos were viewed more than 42 million times; the fewer McCain videos were viewed more than 20 million times. "The Ghosts of Campaigns Past and Campaigns Yet to Come" gives a full account of the two campaigns on YouTube (Boynton, December 14, 2008).

That is a lot of political behavior political scientists have not been able to analyze before. Citizens pay attention to the campaigns, but in the age of television it was difficult to obtain evidence about that attention. By the 1990s it became possible to track political TV ads, but information about people watching was not available. Samples could be asked about their attention to the campaigns, but that does not produce very reliable numbers. For example, the Pew research reported 70% of the respondents said they got most of their news from television, 40% said they got most of their news from the web, and 35% answered newspapers. Unfortunately, that adds up to considerably more than 100%. The YouTube campaigns were only one element of the election campaigns, and thus were only one element of the attention people were paying to the campaigns. However, the numbers collected by YouTube make it possible to do analyzes we have not been able to do in the past. This report focuses on the dynamics of viewing online campaign videos.

**Going Viral**

“Going viral” is vernacular. Exactly what would count as going viral and what would not count has not been carefully specified. Three possibilities will be considered.
**Going Viral 1**

An “obvious” use of the vernacular “going viral” is describing videos that are viewed many times. “Many” remains vague, however. Would the number of views of the campaign videos count as many or not?

In October, 2008 YouTube videos were viewed by 344 million unique viewers (Gannes, December 1, 2008). The campaign videos were viewed almost 21 million times in October. However, these were not unique viewers. Unique viewers for the campaign videos would be many fewer than 21 million since the campaigns posted more than 300 videos on YouTube that month, and one would anticipate that many viewers returned again and again to watch the videos as they were posted.

With the exception of views of Obama’s Chicago speech election night the most views of any campaign video were just over 2 million. The two videos that have been viewed most often on YouTube were viewed 111 million and 108 million times by the end of December, 2008 which certainly dwarfs the views of campaign videos (Gannes, December 29, 2008).

"Celeb" was one of the most frequently viewed videos of the campaign, but when it had been viewed 2 million times in the middle of September the Paris Hilton spoof of the McCain video had been viewed 7.4 million times (Boynton, September 18, 2008).

The campaign video of Obama’s speech in Chicago election night was viewed 4 million times. But "I Got a Crush on Obama by Obama Girl" was viewed 12 million times on the Barely Political YouTube channel. And "Yes We Can," the video produced by Will.i.am, was viewed more than 20 million times.

Crane and Sornette examined daily views for nearly 5 million videos and classified them into four categories. While the classification is based on dynamics rather than number of views they reported the average total views for the class with the most views was 33,693 and for the smaller class as 16,524 views (Crane and Sornette, 2008).

With mean views of this magnitude one might say that any video viewed more than, say, 100,000 times was going viral. All that would be required is for it to seem like quite a large number of views to people who follow YouTube carefully, and that is probably what is behind much of the talk about going viral. You recognize it when you see it -- one might say when it comes to the numbers (Albrecht, September 24, 2008).

**Going Viral 2**

A second version of “going viral” is as process. It is a “play” on the epidemiological version of going viral. The point is that there is no single source from which all persons are “infected.” Instead infection is spread through contact: It starts when a few individuals are infected. Each comes in contact with others who are then infected. Each of the infected at time 2 come into contact with additional individuals who are infected. And this continues until the process has run its course. That is the simple version of the biological process of epidemic.

How is that relevant to the web in 2008? Here is a paragraph that describes exactly the same process and also the structural change that would transform the process.
It seems like every day there’s at least five new Twitter apps popping up. The news of a shiny new Twitter toy gets dispersed through Twitter streams everywhere, hits critical mass, news dries up a bit, and then, if you’re like me, you forget about it completely.

So where do you turn when you need to reference multiple Twitter apps, see what others think, or view app ratings? You could ask your Twitter friends, do a quick search, or wander over to the Twitter Fan wiki, but there should be a better way, right? Given that Twitter doesn’t offer a Twitter app store (and why the hell not?), Twitdom has jumped into the fray to be the answer to your twreams (twitter dreams) with their Twitter applications database. (Van Grove, 2009)

Yes, it is too cute by half, but that is the way some tech bloggers write. And it is about twitter apps rather than videos on YouTube. But it illustrates the thought process that results in drawing on the language of epidemic in thinking/writing about how the web is being used. In this case -- and in the case of finding a video to watch on YouTube -- the process is search. New videos are posted to YouTube every day. How do you find the videos you want to watch? You could ask your web friends, and then tell other web friends. You could search, but you are not quite sure what you are searching for so it is back to friends. Or there could be a common source, in this case a database, that would bring together what you are looking for. Then you only have to go to one place, and that would make the search very easy.

In 2005, 2006 and 2007 the videos posted to YouTube were largely “user generated content.” The large music, movie, television, and news organizations steered clear of YouTube. And when they found that someone had placed a property of theirs on YouTube they demanded that it be removed. They had as little to do with YouTube as possible. That began to change in 2008, but for the first three years of its existence established corporate reputation could not be used as a search strategy. So the hundreds of millions of viewers relied on their friends for discovery and spreading the word. It was almost the only discovery procedure available.

The structure of spreading the word is: 1) making it your own by adding a copy to your own blog or website, which has been made easier in the last year as embedding has become popular, 2) blogging, i.e., writing publicly about the video and ordinarily including a URL for the video, and 3) private communication that is also made easier by web connections. And Google is attempting to make money via exactly this same structure of going viral.

Google is starting to share more details about its high priority of making more money off YouTube’s popularity, introducing an advertising product on Tuesday called buzz targeting.

The ad product uses an algorithm to find videos that are about to "go viral," when word of mouth (or IM, or blog, or e-mail) promotes a Web site to a phase in which it spreads like wildfire. In this case, ads are overlaid on the bottom fifth of viral videos supplied by YouTube partners who share ad revenue with the search giant (Shankland, May 13, 2008).

Check the instant messaging and blogging and email to note videos that are about to “take off” and sell ads.

Almost everyone would agree that Will.i.am’s video "Yes we can” went viral. The version posted to YouTube February 2, 2008 (http://www.youtube.com/watch?v=jjXyqcx-mYY) was viewed, as of January 4, 2009, 15 million times. For News and Politics videos on YouTube it was the second most viewed of all time, the second most favorited of all time, and the fifth most discussed of all time. If you search, January 4, 2009, only on YouTube you locate 733 videos that can be identified by Will.i.am and the title. There would be many more copies if you
searched the entire web. Kevin Wallsten (Wallsten, 2008) tracked the views, blog posts, and mentions in the traditional media, and concluded that blog posting, personal communication, was the driving force in viewing the pro-Obama video.

This is a persuasive story, and it is certainly possible to find other videos that seem to have the same character. President Bush's press conference on December 14 in Iraq at which a journalist tossed shoes at Bush took off in a “viral” fashion. Visible Measures reported As of this morning (December 19, 2008), Bush vs. Shoes had generated more than 1,150 placements, 21.4+ million views, and 150,000+ comments (Visible Measures, December 19, 2008)
The first video was posted on December 15, and within four days it could be found at 1,150 places on the web and had been viewed 21.4 million times.

As persuasive as this story is it does not seem an apt characterization of the views of videos placed on YouTube by the campaigns. There are too few blogs posted for this to seem apt.

I did a Technorati search for blog posts for each of the videos posted by McCain and Obama the first week in September and the first week in October. There were 39 videos in September and 93 in October for a total of 132.

The mean number of posts per video was 16.7. The range was 257 posts to 0 posts. The figure shows the distribution of blog posts for the videos. Only 30 videos had 17 or more blog posts. The other 102 videos received fewer than 17 blog posts. It is hard to imagine that 17 blog
posts can generate very many views, and certainly they are not going to generate going viral. It is even more difficult to believe that 0 blog posts, which 22 of the videos received, were producing views of the campaign videos. You might argue that 257 blog posts would be enough communication to produce going viral. But even that seems unlikely when compared to communication received by "Yes we can" and Bush vs. Shoes.

There is one other point relevant even though I cannot go into the same detail here. I will examine the data more systematically in a future paper. YouTube records the views that are sent to the video from other sources. So you might learn about a video at one of the major political blogs. If you look at their record for the top five sources you find two things. One, the top five “send” a tiny fraction of the total views. Two, a campaign website or websites is almost always among the top five. So the campaign is “sending” views which is just the point I want to make. You can go to the website to find a video just as you can go to YouTube to find a video.

If not blog posts what is generating views? The answer seems very simple. There is a directly relevant “database” -- the channels, and to a lesser degree, the websites of the campaigns. If you want to check out McCain videos or Obama videos all you had to do was go to the channels of the campaigns. You could subscribe to the channels if you were really interested or you could easily search for campaign videos and find them. The structure does not require the logic of epidemic.

Going Viral 3

The third version of going viral is not vernacular; it is a functional form.

If you follow the description of the process the number infected early would be small, but it would grow very quickly until all individuals available to be infected had been infected -- the process had run its course. That takes the shape of a sigmoid curve. Figure 2 illustrates this structure of change through time, and it can effectively be modeled by a first order quadratic equation. People talking about YouTube do not ordinarily have sigmoid curves in mind when they refer to “going viral,” but it is what political scientists and others are taught as a simple version of the epidemic process (Arneson, 2006).

However, a sigmoid curve is not what you find when plotting the views of campaign videos over time. Instead you get curves that looks like these two figures (Figure 3).
One is the McCain video "Celeb" that was posted August 30. By the end of the campaign it had been viewed 2.2 million times. The other was an Obama video "Detroit, MI Campaign for Change Headquarters Opens." It was posted on August 29 and by the end of the campaign it had been viewed 6400 times. I chose the two because the number of views was dramatically different. But the two curves -- the dynamics -- look similar and neither looks anything like a sigmoid curve.

One might be able to find videos on YouTube that change in time in a process that can be plotted as a sigmoid curve. But the videos of the campaign did not. I also used a service, Trendrr, to track one of the most viewed videos of the Bush vs. Shoe episode. This is only one of 1,150 videos of the event on the web. There may be others that take a sigmoid shape when plotted over time, but this one does not.

My conclusion is that the functional form that most easily captures the dynamics of going viral does not appear very often for political videos on YouTube. A different functional form is the predominant form. And it is to that functional form that I now turn.

What should one make of “going viral” talk? I certainly do not want to deny the possibility that some specification of “going viral” may be an accurate characterization of some videos on YouTube. However, I believe the structure of political campaigns will generally produce a different dynamics. We political scientists will not be able to participate in the going viral talk except in rare cases.

The Dominant Pattern

Two recent studies of the dynamics of viewing online videos are relevant to this examination of the dynamics of the videos of the 2008 presidential election campaign.
The first was by Tubemogul (Tubemogul, June 19, 2008). It is a firm that does video analytics and uploads clients' videos to a variety of sites on the web. The dynamics of viewing videos is important to them so they can tell their customers when to post and what to expect.

They used 10,916 videos and followed the daily views of each for 90 days. They analyzed both total views and average views over time, and found a pattern that is very similar to the pattern for the 2008 campaign videos on YouTube. By adding the number of views or taking an average they make the assumption that the videos are independent. That is undoubtedly a reasonable assumption for most videos on the web, but I will show that there are interdependencies between the campaign videos that cannot be captured given their procedure. Instead of analyzing a total or an average I will do a comparative analysis of the dynamics of individual videos.

There is a second way my research differs from theirs. They are interested in how fast viewing decreases; that is what their clients are concerned about. I believe political scientists are primarily interested in how many views a video receives. This is just a matter of “flipping” over the curve -- from views daily to views added to the total daily (see the methodological appendix for further explication of this point). But it gives a clearer picture of the political importance of the videos.

The second is the study by Crane and Sornette (2008) "Robust dynamic classes revealed by measuring the response function of a social system." The study was based on 5 million time series of views of videos posted to YouTube over an eight month period. They do not say how many days are included in each time series; the figure that gives distributions by day lists 50 days.

Their analysis of their model of the process yields a two by two table of dynamics. They found that 90 percent of the videos "either do not experience much activity or can be statistically described as a random process." They do not specify "much activity" so it is hard to compare that to campaign videos that range from a few thousand views to 2 million. But they locate 90 percent of the videos they studied in the top left cell: endogenous-sub-critical. Finding 90 percent in cell A is difficult to square with the Tubemogul study unless most of the 90 percent were excluded by Tubemogul when they did not consider videos that had a total number of views less than 1,000 in their study. There are no campaign videos for which views are related to time as in cell A. So campaign videos fall into the 10 percent that they find distributed into the other three cells.
The top right cell (endogenous-critical) would be an approximation of a sigmoid curve if you were looking at the cumulative total number of views instead of the views each day. They do not say how many videos are found in this class, but they do say that the average number of total views for this class is 33,693. So while the authors characterize these videos as viral they certainly are not viral by a definition that emphasizes the total number of views. And there are no campaign videos that can be described by a sigmoid curve.

That leaves two cells: exogenous-sub-critical and exogenous-critical. Cell C, exogenous-sub-critical, is specified as videos for which more than 80 percent of the views occur on the peak day of viewing. Cell D, exogenous-critical, is videos for which between 20 percent and 80 percent of the views occur on the peak day of viewing. None of the campaign videos fall into cell C. The Tubemogul study found that on average only 25 percent of the views occurred on the peak day so there must not be very many videos in cell C. So campaign videos in the 2008 presidential election on YouTube virtually all fall into cell D.

I am going to agree with Crane and Sornette that the driver in the dynamics is, as they call it, exogenous. The campaign puts the video on YouTube, and people look at it. There is no build up. However, they ignore both interdependencies that can occur in a campaign and they ignore other exogenous shocks that influence the views of campaign videos.

The data I will analyze are the daily views for the videos the McCain and Obama campaigns placed on YouTube between July 1 and the election. At the end of each day videos posted that day were added to the datafile and the views of that day for each of the videos was added to the data collection. The data is available online at YouTube Campaign Video Stats (YouTube Campaign Video Stats, 2008). The two campaigns placed 884 videos on YouTube during the 4+ months. I also collected the daily views of the Bob Barr campaign videos, but they will not be used in this analysis. I will use only the time series posted between July 1 and October 4 allowing a minimum of 30 days for the time series to develop. That gives a data collection for analysis of 415 Obama campaign videos and 81 McCain campaign videos.

The process goes something like this. The candidates establish a channel on YouTube and start posting videos. Supporters and opponents stop by in a fairly steady stream. When they get there they are confronted by a page of 20 thumbnail images taken from the videos and video names that serve in lieu of a description. There is a video called Barack Obama at Martinsville,
Virginia. Unless they are from Martinsville or Virginia they are not likely to look at that. If you are from Martinsville you may have attended the meeting, and you may go to YouTube to see again what you have already experienced. There is another video titled Barack Obama at Berlin. Many viewers would have read about Obama going to Berlin and that being a big deal. So many decide to check out the video. And they go through the list selecting or rejecting. In a few days they return. Some of the twenty on the page they had already reviewed. Unless there was one they particularly liked they only look at the new videos. Some they pass over and some they view. And a few days later . . .

To make sense of this process we need an indication of the breadth of appeal of a given video. This is an estimate of the potential audience for the video; Martinsville versus Berlin, for example. A second assumption is that the longer a video has been posted to YouTube the greater the proportion of the potential audience that has seen it. If the pattern is very regular there will be many views the first few days the video is on YouTube then each day there will be fewer views than the day before.

Notice this is the same logic as Crane and Sornette with Cell D. There is an exogenous force that acts as a constant, and there is a decay process from the first impact of the exogenous force. I have characterized the breadth of the appeal of the campaigns’ videos as the exogenous force and exhausting the audience for the video as the decay process.

It is possible to use a relatively simple model for the process. I will develop it as a discrete time model since the data is, as gathered, discrete time.

\[ V(t) = aV(t-1) + bU(t) \]

The total number of views for a video at time \( t \) is equal to a coefficient times views at \( t-1 \) plus an input that is assumed to be constant, \( U(t) \).

Political scientists are not generally used to thinking about a constant driving a process of change, but that is precisely what you have in cell D in the Crane and Sornette model and what is hypothesized here.

\( V(t) \) is a cumulative total. The “a” term in \( aV(t-1) \) lets me model how quickly or slowly the potential audience is “exhausted”.

The most important difference between the Crane and Sornette study and this one is that they “lump” all of the videos together in their analysis. I will use the model to analyze each time series individually, and that permits looking at differences in the estimates of “a” and “b” that can then be further analyzed, i.e., look for specific campaign effects that one could not identify using the Crane and Sornette strategy.

The analysis of the model is straightforward (Boynton, 1980). For \( 0 < a < 1 \) the system is stable, and approaches an asymptote. For larger values of “a” the progress to the equilibrium is slower, and for smaller values the progress to the asymptote is faster.
The “a” coefficient for the McCain TV ad “Love” is .91, and it approached the asymptote much more slowly than did the Obama video that had an “a” coefficient of .13. The visual difference is the gentle slope to the asymptote for the McCain video and the sharp corner for the Obama video. The numeric differences can be assessed by looking at the views after the first three days relative to the number of views as they approach the asymptote. Ninety-one percent of the views occurred in the first three days for the Obama campaign whereas only fifty percent of the views had occurred in the first three days for the McCain video. All but 6 of the 496 videos have an “a” that falls in this range; virtually all of the videos are stable systems.

For a > 1 the system is not stable; it is flying off on an unending climb. There are 6 videos with this character. Three of the six are something like training videos for the campaign. "Neighbor to Neighbor How-To” is an example. It is a minute and a half instruction video about contacting voters. It tells where you can get a list of names, a map, and a script that you can use talking to the voters. It was viewed 43,000+ times. The plot of views shows a sharp turn at November 5; the views fell from 5443 on November 3 to 9 on November 6. From October 1, when it was posted, through November 4 the system was unstable; those are the data used estimating the coefficients. But almost nothing in the world is unstable forever, and this video stopped its “endless” climb when it was no longer relevant. The other five are very similar though a couple do not have quite as sharp a turn as in this example.

When you sort the “a” coefficients by size you get this distribution.
The low is the .12 of the "Obama calls on North Carolina" video, and the high is just over 1.0. This spread from rapidly to slowly responding systems is something that cannot be assessed using the procedures of the Tubemogul or Crane and Sornette research. The first point is there are quite big differences in the videos with a pretty even distribution over the entire range of values. There is a lot of potential for investigation and explanation here. I will use these differences in examining campaign effects.

**Campaign Effects**

There is a dominant pattern. If a single pattern was all one was looking for then lumping all of the videos together for analysis would give that dominant pattern. But there is more to the story than a single pattern. Another feature of the collection of videos is what they are because they are part of a campaign rather than being independent of each other. At regular intervals the campaigns posted videos to their channels. As the campaigns progressed the postings came thick and fast (Boynton, September 27, 2008). The YouTube display is set up so you see the most recently posted videos on the first page and have to dig through more pages to get to videos posted earlier.
If campaign videos are being found by going to the channels, and viewers are more likely to view the most recent videos rather than looking through six or seven pages then viewing should decrease more quickly than for videos that are independent of each other.

There are two ways to assess this interpretation of the campaigns. One is to compare the time taken to reach a certain proportion of the views in the Tubemogul study with these data. In the Tubemogul study they found that 50 percent of the viewing happened during the first two weeks the videos were posted. Crane and Sornette do not provide comparable information so the comparison can only be to Tubemogul. I counted the number of videos in which half of the viewing fell within the first week or one half the time of the Tubemogul study. The numbers are shown in Table 1.

<table>
<thead>
<tr>
<th></th>
<th>McCain</th>
<th>Obama</th>
</tr>
</thead>
<tbody>
<tr>
<td>In one week or less</td>
<td>87% (71)</td>
<td>95% (390)</td>
</tr>
<tr>
<td>More than one week</td>
<td>13% (9)</td>
<td>5% (19)</td>
</tr>
</tbody>
</table>

Table 1: Number of Videos by Time

The videos of the political campaigns reached half their views considerably more quickly than did the videos examined by Tubemogul. While there is a difference between the McCain campaigns and the Obama campaigns it is a very modest difference.

Figure 9: Speed at which Videos Approach the Asymptote

A second way to examine the importance of the compression that campaigns produce is to look at the speed at which the videos approach the asymptote. As the videos appear more and more quickly during the campaign that should mean that people who look at the top of the page
have missed several “rows” of videos that were at the top and then fell to the bottom of the page or to another page in between visits to the YouTube channel. If the campaign videos are “going away” faster then the coefficient “a” should fall during the campaign.

The videos are arrayed from left, which are the earliest, to right, which are the last posted to YouTube. That there are many more videos from the Obama campaign than the McCain campaign is clearly visualized in these figures. There is also much variability around the trend, but there is definitely a trend. The coefficients of the McCain campaign videos are a “step” higher than the Obama videos but the slope or trend is almost the same.

Another potential campaign effect is interaction between videos producing an increase of viewing earlier videos because of the posting of later videos. An easy to spot example happened at the end of July as the McCain campaign “went on a tear” posting 8 made-for-TV videos that were strongly critical of Obama in a couple of weeks.

<table>
<thead>
<tr>
<th>Date</th>
<th>Title</th>
<th>Total day 3</th>
<th>Total day 10</th>
<th>a</th>
<th>b</th>
<th>r-square</th>
</tr>
</thead>
<tbody>
<tr>
<td>07/16</td>
<td>Wrong on Iraq</td>
<td>3332</td>
<td>23656</td>
<td>.94</td>
<td>1507</td>
<td>.99</td>
</tr>
<tr>
<td>07/17</td>
<td>Iraq documentary</td>
<td>92813</td>
<td>224261</td>
<td>.88</td>
<td>28768</td>
<td>.99</td>
</tr>
<tr>
<td>07/18</td>
<td>Troop funding</td>
<td>88861</td>
<td>166826</td>
<td>.89</td>
<td>18895</td>
<td>.99</td>
</tr>
<tr>
<td>07/21</td>
<td>Pump TV ad</td>
<td>139135</td>
<td>238021</td>
<td>.77</td>
<td>55407</td>
<td>.95</td>
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<tr>
<td>07/22</td>
<td>Obama Love</td>
<td>255000</td>
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<tr>
<td>07/26</td>
<td>Troops</td>
<td>353210</td>
<td>439243</td>
<td>.49</td>
<td>226997</td>
<td>.97</td>
</tr>
<tr>
<td>07/30</td>
<td>Celeb</td>
<td>1339267</td>
<td>1939667</td>
<td>.74</td>
<td>543678</td>
<td>.97</td>
</tr>
<tr>
<td>08/01</td>
<td>The one</td>
<td>728772</td>
<td>1172257</td>
<td>.83</td>
<td>244091</td>
<td>.98</td>
</tr>
<tr>
<td>08/01</td>
<td>Obama forgot Latin America</td>
<td>45609</td>
<td>60721</td>
<td>.66</td>
<td>21515</td>
<td>.98</td>
</tr>
<tr>
<td>08/04</td>
<td>calls on congress</td>
<td>5882</td>
<td>8648</td>
<td>.67</td>
<td>3190</td>
<td>.98</td>
</tr>
</tbody>
</table>

Table 2: Interaction between Videos

The videos referenced in the top eight rows are the videos used to examine interaction. The bottom two rows are videos used to show that the interaction had stopped by that point.

One interaction that appears to be present is a mobilizing effect. The first video, "Wrong on Iraq" was viewed only 3,332 times in the first three days it was posted. Videos 2 and 3 jumped to 30 times as many views in the same number of days. "Pump" TV ad, fourth, was viewed 1.5 times the number viewing 2 and 3. "Obama Love," fifth in the series, jumped to
almost 2 times the views of 4. A little explanation is needed for "Obama Love." Obama Love was two videos that were posted on YouTube at the same time. They had the same video and narration, but a different musical background. The McCain campaign sent an email to supporters inviting them to vote on which they liked best. Unfortunately for the McCain campaign, they had not checked with the company owning the copyright for the music. When the company found out their music was used they demanded that it not be used. So the videos were viewed approximately 255,000 times and then taken off of YouTube. Even though they were there only three days they were an important part of the series. After "Obama Love" they posted "Troops," which was viewed almost twice as many times in the first three days as the preceding video. "Celeb" was a huge jump in views. "The One" was not viewed as often as "Celeb" but it was viewed many more times than all of the other earlier videos.

I believe a plausible argument can be made for a mobilizing interaction in this series. One, there is a consistently increasing number of views with each new video; until you get to "The One" an exponential curve fits reasonably well. Two, an argument that it was the content that led to the increase seems unlikely because a video about the price of gas sits in the middle of a series of videos criticizing Obama’s support for the troops in Iraq. "Wrong on Iraq" was viewed 3,332 times, "Iraq Documentary" 92,813 times, "Troop Funding" 88,861 times, "Pump" 139,135 times, and "Troops" 353,210. If it was support for troops versus gas prices then the four videos concerned with support for the troops should not range in views from 3,332 to 353,210. And it is hard to believe that the people viewing Pump were likely to think it 41 times more important than "Wrong on Iraq;" it seems more likely that they just had not been drawn in before. It is a plausibility argument, but it seems pretty plausible

However, there are interactions in this series that have more supporting evidence. The dominant pattern of a decreasing number of views each day is pictured on the left of this figure. If there is a deviation from that pattern it will show up like the right hand side of the figure. There was a single day when the views increased rather than decreased.

![Figure 11: Decreasing Number of Views](image-url)
The graph on the right is the pattern that can indicate an exogenous effect. However, in this series it is posting the subsequent videos that are linked to the deviations from the standard pattern. The rather busy Table 3 presents the evidence.

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Table 3: Deviation of views

The rows are the days videos were posted to YouTube -- "Wrong on Iraq" through "Calls on Congress." The columns are the days of the month for the second half of July and the first few days in August. A zero is placed in the cell when the video was posted to YouTube. A + is used to mark days when there was a deviation from the smooth decrease in views from one day to the next.

There was no deviation in the smoothly decreasing paths as each of the first four videos was posted on YouTube. But the day "Obama Love" was posted there was an increase rather than a decrease in the views of the first four videos. "Troops" was posted on the 26th, and only one earlier video showed an increase that day, but the next day videos posted earlier were viewed more rather than fewer times. "Celeb" and "The One" were released back to back. On the day "Celeb" was posted two of the earlier videos had an increase in views. The next day all of the earlier videos had an increase in views. The last “bump” in views of "Celeb" is revealing. August sixth was the day the Paris Hilton spoof of "Celeb" was posted. "Celeb" got a bump but none of the other McCain videos increased instead of decreasing.

The patterns seem consistent with interaction, and otherwise seem inexplicable.

**Exogenous factors**

Viewing the videos of the campaigns is understood as a system structured primarily by the size of the potential audience for the videos and the speed with which that audience is
reached. However, as just shown there are YouTube campaign effects that also have an impact on the viewing. And the YouTube campaigns do not exist in a vacuum; they were not completely closed systems. The first point is to demonstrate that exogenous effects are there and can be recognized.

When the Democrats met in their nominating convention the views of McCain campaign videos got a “bump.” The debates also produced bumps in views of videos. And many videos saw an increase in views as the election approached. But I would first like to look at two episodes that so clearly reflect both the stability of a constant driving the views and an exogenous factor that “interrupts” the time series that it will be completely clear that this is what is going on.

In the middle of July 2008 Obama campaigned in Indiana with Evan Bayh, senator from that state (UPI.COM, 2008). Bayh made a statement supporting Obama that the campaign placed on YouTube. There was speculation at the time that Obama might be considering Bayh as his vice presidential running mate. And when Obama returned to the state three weeks later the speculation became intense (Hulig News, 2008). Suddenly people needed to find out about Evan Bayh and his statement on YouTube was one place they turned. The result was a sudden, very sharp jump in views that cannot be missed in the figure. Clearly this is an exception to marginally decreasing daily. And it is not difficult to spot what brought it about. Obama “came to town” for a second time, lots of people began searching for the Senator from Indiana, and they found him.

It is clear that the system describing the first few days of viewing the Bayh video could not describe the entire process; the system was altered by an exogenous event. It is possible to assess the impact of that shock on the eventual total number of views. Do the short term system and the post “shock” system begin to converge? If not what is the size of the gap?

The system description of the first seventeen days is $V(t) = .73V(t-1) + 2674$. The actual distribution and the distribution predicted by the system equation are shown in this figure, and the fit is extremely good. The r-square for this relationship is .99. Given the extremely good match between actual and expected it is plausible to project the system ahead to the same number of days for which
there is actual data, which is 90 days. There was no convergence. At the end of 17 days this system was projecting 9,800 views and by 90 days it reached 9,900 views. That makes the gap very considerable. By 90 days the actual views had risen to 33,243. So the difference made by the speculation about Bayh's possible candidacy was 23,000 views.

The second example is a post election example; old campaign videos never die they just fade away, as the saying goes. On October 15 the Obama campaign posted a video featuring Valerie Jarrett -- "Valerie Jarrett's Thoughts on Barack Obama." She had been a friend of the Obamas for decades. She was also traveling with Obama on many of his trips around the country with carefully chosen responsibilities in the campaign. The video, pictured by the left figure, looked very standard: \[ V(t) = 0.78V(t-1) + 6682, \] and r-square was .98. Those are standard numbers and a standard path apparently approaching an asymptote.

Then the election, and Ms. Jarrett moved out of the shadows. The New York Times had a story about her on November 5. Time magazine followed on November 8, she was on The News Hour with James Lehrer on the 13th, The Washington Post had a story on the 14th, and The Chicago Sun Times had a story on the 15th. She had become co-chair of the Obama transition team and senior advisor to the president. And everyone was searching the web to learn about Valerie Jarrett. One of the results of the searching was the campaign video. Through November 4 it had been viewed 31,895 times. By December 1 it had been viewed 50,210 times. Twenty
thousand additional views to learn about the “new” person with an important position in the Washington scene.

The point is two examples in which both the constant and the interrupt are apparent in the movement of viewing through time. In both cases the exogenous factor made quite a large difference in the views of the campaign videos.

The one “exogenous” factor to which all campaign videos were subject is the election itself. As the election approached there was increased interest and it is easy to imagine people turning to YouTube in greater numbers than before producing a “bump” in viewing. To examine this possibility systematically I looked at the views for each video for two three day periods -- ten days before the election, October 22, 23 and 24, and the three days November 2, 3, and 4. The views for the two three day periods were summed, and I computed the ratio of the immediate election period to the period ten days earlier.

As in other analyses, only videos posted before October 5 are considered. By the election they might be characterized as “spent” systems. Virtually all were characterized by the dominant pattern, and, thus, were approaching an asymptote by the time of the election. So the numbers were generally very small. Only about five percent of the Obama videos summed to more than 1,000 views for the November 2-4 period. On average the McCain campaign videos were viewed much more frequently than the Obama videos and this is reflected in twenty percent of them summing to 1,000 views November 2-4. So many “bumps” were very small compared to the total number of views received by the videos. For most videos there was nothing quite like the impact of the exogenous influence seen in the Bayh or Jarrett videos.

The set is 413 videos of the Obama campaign and 82 videos of the McCain campaign.

<table>
<thead>
<tr>
<th>Campaign</th>
<th>No Bump</th>
<th>Bump</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>McCain</td>
<td>28% (23)</td>
<td>72% (59)</td>
<td>82</td>
</tr>
<tr>
<td>Obama</td>
<td>37.5% (155)</td>
<td>62.5% (258)</td>
<td>413</td>
</tr>
<tr>
<td>Total</td>
<td>36% (178)</td>
<td>64% (317)</td>
<td>495</td>
</tr>
</tbody>
</table>

Table 4: Viewing “Bumps”

Sixty-four percent of the videos were viewed more often the last three days of the campaign than they had been viewed ten days earlier. There is modest difference between the two campaigns; more McCain videos saw an increase in views than did Obama videos. However, the difference is only ten percent. It is clear that the approaching election day produced a bump that should be interpreted as exogenous to the basic structure of viewing campaign videos on YouTube.

What was not there was a temporal trend. When the ratio is plotted by date of first post to YouTube is no discernible trend of any sort. That suggests that in the final days the search used by viewers was not simply looking at what was posted that day. An obvious search procedure would be to search for names of the relevant political figures. I searched the titles of the videos by name and counted videos that increased and decreased in the last three days.
<table>
<thead>
<tr>
<th>Person</th>
<th>Views Down</th>
<th>Views Up</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barack Obama</td>
<td>25% (34)</td>
<td>75% (102)</td>
<td>136</td>
</tr>
<tr>
<td>Michelle Obama</td>
<td>63% (12)</td>
<td>37% (97)</td>
<td>19</td>
</tr>
<tr>
<td>Joe Biden</td>
<td>67% (24)</td>
<td>33% (12)</td>
<td>36</td>
</tr>
<tr>
<td>Jill Biden</td>
<td>75% (3)</td>
<td>25% (1)</td>
<td>4</td>
</tr>
<tr>
<td>Bill Clinton</td>
<td>0</td>
<td>100% (3)</td>
<td>3</td>
</tr>
<tr>
<td>Hillary Clinton</td>
<td>60% (3)</td>
<td>40% (2)</td>
<td>5</td>
</tr>
<tr>
<td>David Plouffe</td>
<td>40% (2)</td>
<td>60% (3)</td>
<td>5</td>
</tr>
<tr>
<td>John McCain</td>
<td>8% (1)</td>
<td>92% (11)</td>
<td>12</td>
</tr>
<tr>
<td>Sarah Palin</td>
<td>50% (1)</td>
<td>50% (1)</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>36% (80)</td>
<td>64% (142)</td>
<td>222</td>
</tr>
</tbody>
</table>

Table 5: Viewing Increases and Decreases by Person

The titles of forty-five percent of the videos contained the name of one of these persons. It is obvious that the strategy of the McCain campaign was different, with respect to naming, from the Obama campaign. Over the entire set the number of videos that went up and down matches the distribution for the entire 495 videos. Within that overall count there is some variation. The “winners” are Bill Clinton, John McCain and Barack Obama -- in that order. Searching for the candidates by name results in a modest improvement over the ratio for all the videos. But searching by name does not seem to have been a dominant strategy for searching or the increases for the other persons would have been greater.

Conclusions

No going viral. Going viral is a standard idea about how communication happens on the web. It has a structure that many political scientists could find compatible -- there is something that is changing and producing changes in views. The report begins by reviewing three possible constructions of “going viral” and argues that none is a good account of what happened in the YouTube campaign for the presidency in 2008.

I have suggested a different construction. It is the video that is driving the views. Of course, that is incomplete. You need an election and people who are interested in following the campaign. You need a network that can carry the files. You need a technology to aggregate and distribute the videos. You need a population that is comfortable with viewing video online. You need an organization such as channels to simplify the discovery process. In the time frame of an election these are all constants though we usually take them for granted and look for something that is changing to explain the dynamics of viewing.
There is a dominant pattern to the dynamics of viewing campaign videos on YouTube. It is exceedingly regular, as represented by the goodness of fit of the model (see appendix for further explication of this point). That does not mean they are all alike. There is variation in the breadth of appeal of videos and in the speed with which the potential audience finds them. But it means this is the starting point for analysis. Looking at the impact of an exogenous factor starts with the dominant model. Then one can assess the impact of the exogenous factor as the examples of Bayh and Jarrett illustrate.

The most important point here is 62 million views between July 1 and the election. That is a lot of political behavior we can analyze in many different and interesting ways. It is also a portent of things to come. The communication technology and economic organization that are the basis for this political action is changing very rapidly. Four years from now the web will be as different from today as today is from four years ago. We can be confident, however, that politicians will find the ability to communicate with their constituencies more effectively than in the past something they will not give up. This analysis of the dynamics of viewing lays the base for many types of analysis. It suggests that one line of thinking is not productive except in extraordinary situations. And it becomes the starting point for many additional explorations of this political behavior that is newly available to us. Next we must ask: What if you had a choice? What do citizens choose when given a choice in ways that has not been possible before?

**Methodological Appendix: Procedures**

The procedures I use in analyzing the dynamics of viewing campaign videos are somewhat unusual so they need some explication and justification, which I will do here.

*It is what you want to learn*

The basic theory posits that viewing will take the form of a smoothly decreasing number of views each day. However, I am not so much interested in the daily views as I am in the total views. How many times was a McCain video called Taxman viewed? The McCain campaign posted it on YouTube on August 15. How many times was it viewed, and what was the dynamics of getting to that total? By election day the video had been viewed 114,379 times. If you plot both daily cumulative total and daily views you can see that the two views of the dynamics reflect each other.

The daily cumulative total is plotted in the left figure and the number of views each day is plotted on the right. All you have to do is “turn them over” to get from one to the other. Since my interest is in total views the model of the theory is about total views -- the left figure.
However, the figure on the right shows jagged lines at the bottom left and the comparable spot on the total views seems smooth. What should be made of that? In this case a third view of the dynamics suggests a perspective on the difference.

The equation is $V(t) = aV(t-1) + bU(t)$. The coefficients $a$ and $b$ can be estimated with regression. Figure 16 shows the residuals from that regression.

This plots the data points on the regression line. It is clear that the residuals are exceedingly modest. Based on the regression $a = .80$, $b = 22042$ and $r$-square is .99.

![Figure 15: Daily Cumulative Totals and Number of Views per Day](image)

![Figure 16: $V(t) = aV(t-1) + bU(t)$](image)
The cumulative total cannot decrease

The standard political science interpretation of r-square is “explained variance.” While I use r-square I do not treat it as explained variance. Instead I understand it as a measure of goodness of fit. How much or how little deviation from the expected is found.

There is, however, a wrinkle when using regression with cumulative totals. A cumulative total cannot decrease; it can stay the same and it can increase. That has a considerable biasing effect on the size of r-square.

The dynamics are very regular for the Obama videos; there is very little deviation from expected. Most of the more than 400 r-squares are above .9. However, they fall as low as .55, which suggests that it would be possible to have much lower numbers if the dynamics were less regular.

In addition, r-square is not the final word when it comes to examining deviation from expected. There are a number of videos that have very high r-squares that do not fit the expected curve very well. Those deviations can be spotted more easily by looking at the plots and the residuals than by looking at the value of r-square.

Measurement error

Every day in each of the time series has 24 hours other than the first day. The procedure was to check the number of views each day at midnight. A video could have been posted to
YouTube only minutes before midnight, and the views would have been the result of only that few minutes. Other videos might have been posted early in the day giving them an entire day of viewing. Some are easy to spot. For example, the Obama campaign posted "Barack Obama on the Economy in Elko, NV" on September 10 and the views that day were 258. The next day the video was viewed 8570 times. It seems very likely that it was posted late on the tenth otherwise the disparity between day 1 and day 2 is hard to account for. The same can be true even for days when the number of views the first day are well over 200 if the next day sees a very big jump in views.

The problem with this measurement error is what it does to the estimates of the coefficients $a$ and $b$. When I start the computation with the second day instead of the first you get a very big change in the coefficients. The fit, assessed with r-square, has gotten much better if you leave out the first day of the series. More important is what it does to $a$ and $b$ because these are the nub of the theory. The size of $a$ indicates how quickly the system is going to the asymptote; if it is .34 that is very fast and if it is .7 that is much slower. And $b$ is an indication of the constant that is driving the dynamics. It changes dramatically from 8069 to 3668.

I do not have a solution for this because the “obvious” measurement error may supplement dynamics that are going faster than predicted by the theory. Sorting into measurement error and rapid system change is not easily done. In this paper I have stayed with the original data; day 1 is in. When I want to look at the $b$ coefficient more closely I will probably have to make an adjustment.

### Table 6: Time Series Measurement Error

<table>
<thead>
<tr>
<th></th>
<th>Day 1 thru Nov. 4</th>
<th>Day 2 thru Nov. 4</th>
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<tbody>
<tr>
<td>$a$</td>
<td>.34</td>
<td>.70</td>
</tr>
<tr>
<td>$b$</td>
<td>8069</td>
<td>3668</td>
</tr>
<tr>
<td>r-sq</td>
<td>.82</td>
<td>.95</td>
</tr>
</tbody>
</table>

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### Sampling in the Time Domain

When the process being investigated is changing in time an important question to ask is how frequently to sample, that is, record information about the process. The answer is straightforward -- it depends. It depends on the variation in the process being studied. If you sample too frequently you get either redundancy or variation you are not interested in. If you sample too infrequently you miss variation you are interested in. To decide how frequently to sample you have to learn about the dynamics of the process.

In examining the dynamics of viewing campaign videos on YouTube the assumption was that once a day was sufficient. The counts were collected each night just after midnight. This assumption was not based on careful research, however. So I looked for an opportunity to do data collection more frequently than once a day to determine what variation, if any, was missed when sampling once a day.
The opportunity presented itself in the form of a very public conflict between Jon Stewart, of the Daily Show, and CNBC reporter Jim Cramer. Jon Stewart mocked Cramer's reporting on the economy. After a lot of back and forth Cramer was invited to visit the Daily Show, and he accepted. The confrontation, occurring on the evening of March 12, was touted far and wide in the online video domain. It looked like a good video to study; it seemed there would be enough interest that viewing would not decline to zero in one or two days.

I collected the total number of views to that point each evening at 9:00 p.m. and morning at 9:00 a.m. -- with modest variation in the sampling points. The first number recorded was 9:00 a.m. March 13, which was the morning after the interview on The Daily Show.

Figure 18 displays the cumulative totals for each data point.

The first data point is 9:00 p.m. March 12 when there were no views. This increased to 1.2+ million by the end of the seventh day in what seemed to be a very regular pattern. When modeled as a first order difference equation the result was \( y(t) = 0.7174y(t-1) + 356374 \). The \( r \) square was .99

As one would expect there was very little residual variation.
But this is not the only way to examine the data. Figure 20 shows a rather different pattern. This is the difference in the number of views from one data point to the next.

The decrease in the number of views consistently falls over the time period, which is what the cumulative figure shows as well. They are the obverse of each other. However, there is a pattern in this figure that was less apparent in the display of total views over time. The even numbered data points are up and the odd numbered data points are down. This corresponds to the time of data collection. The odd numbered points were in the morning and the even numbered points were in the evening. The point is simple: given the general pattern of declining views, the video was viewed more often during the day than during the night.

When the parameters of the model were estimated with the full data set -- morning and evening -- the results were shown above. However, if you estimate the parameters with data once a day you get a rather different result. The model becomes $y(t) = .6935y(t-1) + 427496$, and the r-square is .979.
Then the situation becomes choosing between the two. The limit to which the process is going can be computed for both models. The limit for the two data points a day model is 1,261,054. The limit for the one a day model is 1,394,773. There is one more data point that was not included in the computations -- the evening of the seventh day. That value is 1,282,117. That exceeds the limit expected from the first model -- only one day later. However, it is still well under the limit expected using the one a day data. The cumulative number of views does not get to 1,390,000 until the evening of March 31, and the increase in views the next morning was 477.

If you are not interested in the day-night variation then dropping one observation each day is not a problem. You know you are missing variation, but it is not important and it would require a more complicated model to set things “straight.” If you are interested in the day-night variation then a second order equation could be the appropriate way to model the process.

At least for views of Stewart versus Cramer a single data point a day seems sufficient. It seems plausible to consider the same may be true for viewing many political videos.

References


“Yes We Can”: How Online Viewership, Blog Discussion, Campaign Statements and Mainstream Media Coverage Produced a Viral Video Phenomenon

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Abstract

“Viral videos” – online video clips that gain widespread popularity when they are passed from person to person via email, instant messages and media sharing websites – can exert a strong influence on election campaigns. Unfortunately, there has been almost no systematic empirical research on the factors that lead viral videos to spread across the Internet and permeate into the dominant political discourse. This paper provides an initial assessment of the complex relationships that drive viral political videos by assessing the interplay between audience size, blog discussion, campaign statements and mainstream media coverage of the most popular online political video of the 2008 campaign – will.i.am’s “Yes We Can” music video. Using vector autoregression, I find strong evidence that the relationship between these variables is complex and multi-directional. More specifically, I argue that bloggers and members of the Obama campaign played crucial roles in convincing people to watch the video and in attracting media coverage while journalists had little influence on the levels of online viewership, blog discussion or campaign support. Bloggers and campaign members, in other words, seem to occupy a unique and influential position in determining the whether an online political video goes viral.
Introduction

Online videos have become an important part of the way that members of the public participate in and learn about the political process in the United States. Sites like YouTube (http://www.youtube.com), Metacafe (http://www.metacafe.com) and Daily Motion (http://www.dailymotion.com) have become popular places for Internet users to not only upload their own politically-oriented videos but also to view political content posted by others. A recent survey of the online activities of the American public, for example, found that 8 percent of adult users have uploaded a video file to a website where other people can watch it (Madden, 2007) and YouTube’s news and political director has estimated that nearly 10 hours of video are uploaded to YouTube every minute (Grove, 2008). Similarly, a recent study by the Pew Internet & American Life Project found that 27 percent of Internet users have gone online to watch speeches or announcements by candidates, 26 percent have watched online videos of interviews with candidates and 25 percent have watched campaign-related videos that did not come from a news organization or the campaigns themselves (Smith & Rainie, 2008).

Online videos have also become an important tool for candidates to use in their efforts to win elections. Beginning with the 2008 presidential primary campaign, a strong presence on YouTube became a prerequisite for any serious candidate for national political office. Indeed, every major party candidate for president created a YouTube channel to post campaign-related videos and John Edwards, Hillary Clinton and Barack Obama even used YouTube videos to announce their candidacies. During the general election, both Barack Obama and John McCain devoted a significant amount of time and energy to communicating through YouTube – with Obama posting over 1800 videos on the site and McCain posting over 300. Presidential hopefuls, however, were not alone in relying on the site to get their message out. Over 70 candidates for various local, state and national offices created YouTube channels before the elections in November.

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1 The author would like to thank Christine Williams, Bob Boynton, Dave Karpf, Antoinette Pole, the faculty of the Department of Political Science at California State University, Long Beach and the anonymous reviewers for comments on previous drafts of this article. In addition, the author would also like to express his gratitude to David Burch of Tubemogul for his generous help in collecting the YouTube data used in this project. Questions and comments should be sent to kwallste@csulb.edu.

2 The data are available from the author upon request. In addition, the data will be uploaded on the Journal of Information Technology & Politics’ Dataverse site (http://dvn.iq.harvard.edu/dvn/dv/jitp) in October 2009.

3 The popularity of these online video sites is the result of the convergence of three separate trends: cheap and easy to use video cameras and video editing software, the expansion of virtual communities and a desire for unfiltered information (Grossman, 2006; Heldman, 2007).

4 Other estimates have suggested that about 200,000 three-minute videos are added to YouTube every day (Pew, 2008). In July 2008, approximately 91 million Americans watched at nearly 5 billion videos on YouTube – with the typical viewer watching 55 videos on the site in that month (Rasiej & Sifry, 2008).

5 Overall, the Pew survey found that 35 percent of Americans have watched online videos related to the 2008 campaign.

6 Not all of the election-related activity on YouTube in 2008, however, was focused on candidates. Campaigns for ballot initiatives and propositions from around the country also became the subjects of countless online videos. Most notably, both opponents and supporters of California’s Proposition 8 relied heavily on online videos to reach out to voters (Garrison, 2008).
The online political videos posted on the Internet by members of the public and candidates for office can gain widespread popularity when they are passed from person to person via email, instant messages and media sharing websites. If these so-called “viral videos” are frequently discussed in the blogosphere, supported by a candidate’s campaign and widely covered in the mainstream media, they can exert a strong influence on the dynamics and outcomes of elections. Jim Webb’s campaign for the Senate in 2006, for example, received a huge boost in the polls, attracted support from the Democratic National Committee and tripled their campaign contributions after posting a video of George Allen calling an Indian-American man a “macaca” on YouTube (Scherer, 2006). Similarly, an anonymously produced YouTube video (entitled “Vote Different”) in which a woman wearing an Obama campaign logo throws the sledgehammer through a screen playing a clip of Hillary Clinton attracted over 3 million views in less than a month, received widespread attention from national news outlets and prompted a series of statements by both the Clinton and Obama campaigns (Marinucci, 2007).

Despite their ability to transform election campaigns, there has been almost no systematic empirical research on the factors that lead viral videos to spread across the Internet and permeate into the dominant political discourse. As a result, little is known about how online viewership, blog discussion, campaign statements and mainstream media coverage interact to produce viral political videos. Do journalists, for example, play a critical role in creating a viral video phenomenon by discussing the clips that they see during their own searches of the Internet – regardless of how many other viewers the videos have attracted – or do they only cover an online political video after it achieves some critical mass of viewers? Similarly, do bloggers lead the way in producing viral videos – by channeling online traffic to and alerting journalists about new and interesting videos – or do they merely follow the pack of Internet users and mainstream media reporters who find online videos on their own?

In an initial effort to specify exactly how online political videos “go viral” and change the dynamics of political campaigns, this paper asks: what is the relationship between audience size, blog discussion, campaign statements and mainstream media coverage of an online political video? Using vector autoregression to analyze the data from the most popular viral political video of the 2008 primary campaign – will.i.am’s “Yes We Can” music video – I find strong evidence that the relationship between these variables is complex and multi-directional. More specifically, I find that bloggers and members of the Obama campaign played crucial roles in convincing people to watch the video and in attracting media coverage while journalists had little influence on the levels of online viewership, blog discussion or campaign statements. Bloggers

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7 The video’s creator – Philip de Vellis – eventually came forward and claimed credit for making and posting the video (Marinucci, 2007).
8 In an interview with Larry King, Obama himself addressed the video and said, “Well, the – we knew nothing about it. I just saw it for the first time. And, you know, one of the things about the Internet is that people generate all kinds of stuff. In some ways, it’s – it’s the democratization of the campaign process. But it’s not something that we had anything to do with or were aware of and that frankly, given what it looks like, we don’t have the technical capacity to create something like that. It’s pretty extraordinary” (http://transcripts.cnn.com/TRANSCRIPTS/0703/19/lkl.01.html).
9 Academic researchers have been much slower to assess the dynamics of viral videos than those in the business world. A little soaking and poking on the Internet, for example, will reveal hundreds of “viral marketing” firms that specialize in attracting attention for commercially-produced videos.
and campaign members, in other words, seem to occupy a unique and influential position in determining the whether an online political video goes viral.

**Literature Review**

Despite the dearth of empirical research on the specific process of “going viral,” large bodies of literature on the media, the blogosphere and election campaigns provide a number of clues about what might produce a viral political video. In this section, I draw upon these studies to spell out some initial expectations for the interactions between online viewership, blog discussion, campaign statements and mainstream media coverage. Based on the existing research, I predict that online views, blog discussion, campaign statements and mainstream media coverage are likely to be deeply intertwined and each probably exerts a strong influence on the others (see Figure 1). Put differently, a viral political video is most likely the result of a complex and multidirectional interplay between the actions of Internet users, bloggers, campaign members and journalists.

![Figure 1 – Predicted Relationships between Online Viewership, Blog Discussion, Campaign Support and Media Coverage](image)

**Media’s Influence on Audience Size, Blog Discussion and Campaign Statements**

A long tradition of research in mass communications on the so-called “media agenda setting hypothesis” suggests that mainstream media coverage of an online political video will increase the number of people who watch it online and the number of bloggers who write about it on their blogs. In its most basic form, the media agenda setting hypothesis states that media coverage — by providing the public with cues about the significance of various political issues — will exert a strong influence on the relative importance that the public attaches to these issues. Beginning with the groundbreaking work of McCombs and Shaw (1972), this fairly simple proposition has been tested using a wide variety of research designs and has been expanded upon
to include the influence of a large number of moderating and intervening variables (Zhu & Blood, 1997). Regardless of the methods used, however, most studies of the media agenda setting have found a strong relationship between the media and public agendas. Indeed, in his review of the literature on the media agenda setting hypothesis, McCombs (2000) concludes that, “The power of the news media to set a nation’s agenda, to focus public attention on a few key public issues, is an immense and well documented influence” (1).

The media agenda setting hypothesis implies that mainstream media coverage of an online political video will increase the number of people who watch the video. When politically attentive members of the public pick up a newspaper or tune in to a television news broadcast and learn about an online political video, they are likely to think that the video is important and worth their attention. The interest generated by media coverage will lead many of the technologically sophisticated members of the audience to search out the video on the Internet. The number of views for the video should, therefore, quickly rise after mainstream media coverage of the video. In short, when journalists mention a video in their discussions of political events, the people exposed to the coverage are probably more likely to search out and watch the video online – thereby driving up the viewership statistics.

Although the media agenda setting hypothesis was formulated to describe the relationship between the media and public agendas, there are two reasons to expect that it will also account for the relationship between what the media covers and what bloggers blog about. First, political bloggers rarely do any original reporting and, as a result, they tend to rely primarily on established media outlets for their information (Haas, 2005). Adamic and Glance (2005), for example, found that political blogs linked to news articles more than any other kind of site during the 2004 campaign and Reese et al. (2007) found that nearly half of the links on news related blogs pointed to mainstream media sites. Second, political bloggers are likely to discuss the events presented in news coverage on their blogs because they view themselves as a “fifth estate” (Cornfield et al., 2005). McKenna and Pole (2004), for example, find that A-list political bloggers act as “watchdogs” for the coverage presented in the mainstream media and McKenna (2007) finds that so-called “policy bloggers” frequently fact check the media’s coverage on the issues they blog about. Because bloggers seem to follow mainstream media coverage so closely, online political videos should find their way into blog posts when the mainstream media chooses to talk about them.

The influence of the mainstream media does not, however, stop with Internet users and bloggers. Research on media effects suggests that news coverage of an online political video print and broadcast reports are unlikely to provide audiences with specific URL’s for the online videos they discuss. As a result, those interested in watching the full and unedited versions of online videos are forced to locate it by themselves. There are two methods that Internet users are likely to employ in their searches. First, many Internet users probably type the video’s title or subject into a search engine, such as Google (http://www.google.com) or Yahoo (http://www.yahoo.com), and hope to get results that will lead them to a site where they can watch the video. Second, some Internet users may bypass general search engines altogether and use the various searching features found directly on the homepages of video hosting sites such as YouTube, Metacafe or Daily Motion. Regardless of the specific mechanism they use to locate online videos, interested audiences have to invest some time and energy in order to find the online videos they learn about through traditional media coverage.

In a more narrow study of blogging about the Iraq War, Tremayne et al. (2006) also found that the majority of links on blog posts about the Iraq War led to traditional news stories.
may prompt political campaigns to issue statements about the video as well. A number of studies of the relationship between the campaign and media agendas have discovered a close connection between what the media covers and what political campaigns choose to discuss (Dalton et al. 1998; Just et al. 1996). More directly, Flowers et al. (2003) found that news routines and journalistic norms significantly influenced the content of press releases from Republican presidential candidates during the 1996 primary season and Tedesco (2005a) discovered a strong correlation between candidate agendas and media coverage of the 2004 presidential election. When coupled with research indicating that news coverage can attract Internet users and bloggers to online political videos, this literature makes a powerful case that journalists are crucial to the process by which online political videos spread across the Web.

**Blog Discussion’s Influence on Audience Size, Campaign Statements and Media Coverage**

Mainstream media organizations are not the only actors likely to play an important role in the creation of a viral political video. Blog discussion of an online political video is likely to influence viewership in the same way that mainstream media coverage is likely to – with increases in the number of blog posts leading to increases in the number of people who see the video. There are important reasons to expect, however, that blog discussion will have a stronger influence than media coverage on the size of the online audience for a video. Most notably, although blogs have a much smaller and narrower audience than mainstream media outlets, they do attract an audience that is, by definition, more likely to have the skills needed to quickly and easily locate political information – such as online political videos – on the Internet. Furthermore, because blog posts about online videos typically contain hyperlinks that guide users directly to the video or contain embedded copies of the video in the post itself, blog readers are able to view the video without exerting any additional effort. In other words, while both mainstream media coverage and blog discussion should exert positive influences on the number of people who watch an online political video, increases in blog discussion should produce more dramatic increases in the size of the video’s audience than increases in mainstream media coverage.

There is a growing body of research that suggests online political videos discussed on political blogs may also find their way into print and broadcast news stories. Journalists rely on bloggers to act as “diggers and aggregators of information” and “conduits of public opinion” (Palser, 2005, p. 44). A December 2004 survey of journalists, for example, found that 84 percent of journalists had visited a political blog in the past 12 months and approximately 30 percent of those reported visiting a political blog at least once a day on a regular basis (Roth, 2004). Mirroring these findings, a 2007 survey of reporters found that 84 percent of journalists said they would or already have used blogs as a primary or secondary source for their articles (Loechner, 2007). Many influential columnists, including Paul Krugman, Howard Fineman and Fareed Zakaria, have even said that blogs form a critical part of their information-gathering activities (Drezner & Farrell, 2004; Smolkin, 2004). When coupled with empirical studies that show a strong bi-directional relationship between the blog and media agendas (Wallsten, 2007), this

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12 According to a recent survey by the Pew Research Center for the People & the Press (2008), 52 percent of the public said they regularly watch local television news, 39 percent said they regularly watch cable television news, 33 percent said they read newspapers regularly and 10 percent said they regularly or sometimes read blogs about politics or current events.
evidence suggests that the content found on political blogs – whether discussions of scandals, debates over specific policies or links to newly posted online videos – exerts an important influence on the content of mainstream media coverage.13

There is also emerging evidence that suggests political campaigns will discuss online political videos that receive attention in the blogosphere. Politicians, it appears, are increasingly reading blogs in order to keep track of what issues, events and sources of information are becoming popular. Representative Jack Kingston (R-GA), for example, has his communications staff read through 50 conservative blogs every day in order to keep the House Republican leadership up to speed on which issues are driving their base (Pfeiffer, 2006) and over 90 percent of respondents in a recent survey of congressional staffers said that they themselves or others in their congressional office read blogs (Sroka, 2006). Similarly, Jimmy Orr, the head of the White House’s Internet activities, admits that many in the administration read blogs every day to keep up to date on the issues that are receiving attention (Fromkin, 2004). More germane to my purposes here, Howard Dean’s presidential campaign in 2004 devoted a great deal of attention to tracking which issues were discussed on liberal blogs (Trippi, 2004), the Kerry presidential campaign had a staff member devoted to tracking discussion on both liberal and conservative political blogs (Gordon-Murnane, 2006) and numerous 2008 presidential hopefuls hired “blog consultants” to help follow emerging trends in the blogosphere (Cillizza, 2006). Given the attention that politicians pay to what is being discussed in the blogosphere, it would not be surprising if campaigns chose to make their own statements about online political videos that became popular on political blogs.

Audience Size’s Influence on Blog Discussion, Campaign Statements and Media Coverage

Bloggers and journalists face a common problem – although the number of politically important issues, events and news sources is infinite, the amount of time, energy and resources for covering them is not. As a result, both bloggers and journalists must make difficult choices about what to discuss and what to ignore. Despite all of their differences, bloggers (Drezner and Farrell, 2004) and journalists (Louw, 2005) are likely to make these decisions based on a common consideration: what content will attract the largest possible audience? For bloggers, the desire to gain a wide readership comes, in part, from their motivation to use their blogs as a tool to influence the political world.14 Without a large number of readers, blogs cannot put

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13 Consistent with this general body of research, a number of case studies on specific issues have shown that blog discussion can exert a small – but significant – influence mainstream media coverage. Schiffer (2006), for example, found that liberal blog discussion of the Downing Street memo led to more mainstream media coverage of the issue and Heim (2008) found that A-list political blogs exerted a significant impact on news stories about the Iraq War.

14 There is a significant body of research that suggests political bloggers use their blogs to influence the political world. In their research on popular political bloggers, for example, McKenna and Pole (2004) found that popular political bloggers blog because it provides them with an opportunity to add new voices to the political debate, to increase political activism, to engage in dialogue with other citizens, and to expose readers to new sources of information. In a similar study of less popular political bloggers, McKenna and Pole (in press) found that less popular political bloggers use their blogs to inform readers, to advocate for causes, and to attempt to mobilize political action. Looking at a sample of bloggers who focus their blogging on one specific political issue, McKenna (2007) found that so-called “policy bloggers” use their blogs to filter information, to provide expertise, to form networks, to attract attention,
overlooked issues on the agenda, change the way an issue is framed or mobilize people to take political action. For journalists, the desire to gain a large audience comes primarily from market pressures. The system of private ownership in the United States means that media organizations must try to maximize revenues and minimize costs. Because advertising rates are dependent on audience size, journalists must make decisions about what to cover partially on what is likely to attract readers and viewers.\textsuperscript{15} A large audience, in other words, is likely to motivate both bloggers and journalists to select certain kinds of issues, events and sources in their discussions of politics.

An online political video that attracts a large number of views is likely to be an appealing event for bloggers and journalists to discuss because it has the potential to attract a large audience to the blog or to the media outlet.\textsuperscript{16} Viral political videos have not only shown that they meet traditional standards of newsworthiness, such as novelty, timeliness and political significance (Graber, 2006), but they also have shown that they are able to command the attention of a large number of people. If bloggers and journalists can capture some of the interest generated by the video, they can drive their own audience size up. A large number of views can provide a powerful motivation for talking about an online political video on a blog, in a newspaper story or during a television report.

A large online audience may also lead campaigns to talk about an online political video. Depending on the content of the online political video, campaigns may be motivated by opposing considerations. On the one hand, if a popular online political video contains information that is critical of their candidate or contains footage of their candidate committing a gaffe, campaigns may feel compelled to circumvent any change in public opinion and issue statements that refute the claims made in the video or offer an explanation for the candidate’s behavior. George Allen’s apologetic appearance on MSNBC’s “Meet the Press”\textsuperscript{17} in the wake of his “macaca” comment spreading across the Internet (Turkheimer, 2007) and Hillary Clinton’s backtracking on the

to frame arguments, and to exploit windows of opportunity. Taken together, these studies suggest that political bloggers use their blogs to express their political beliefs, to interact with like-minded people, to inform their readers and to encourage political participation. Put simply, political blogging is designed to influence the political world by shaping the attitudes and behaviors of blog readers.

\textsuperscript{15} There are, of course, other factors that influence what media covers. In fact, a large literature on so-called “agenda building” (Lang & Lang, 1981) – the process by which journalists choose which issues, events and sources to focus on in their coverage of politics – suggests that decisions about what to cover are also influenced by ideological considerations (Reese, 1991), organizational routines (Berkowitz, 1992; Shoemaker & Reese, 1996), what other media outlets are covering (Reese, 1991), the political beliefs of journalists (Patterson & Donsbach, 1996) and the demographic composition of newsrooms (Shoemaker & Reese, 1996).

\textsuperscript{16} One way that journalists and bloggers may track the number of views is by looking at YouTube’s statistics on a daily basis. Journalists and bloggers can either look at the specific video to see how viewership is changing or look at the most viewed videos on a day by day basis in categories such as “News and Politics.”

\textsuperscript{17} Allen and his campaign actually issued a number of conflicting statements about the controversy prior to his appearance on “Meet the Press.” Allen originally claimed that did not know what the word meant and had picked it up from his staff. Soon after, Allen’s campaign claimed that he used the word to refer to the Mohawk hairstyle that S.R. Sidarth – the target of the remark – was frequently seen wearing (Craig & Shear, 2006). A week later, Allen began asserting that he had never heard the word before and that he had simply made it up on the spot (Whitley & Hardin, 2006).
details of a 1996 trip to Bosnia after a number of YouTube videos juxtaposed her account with a twelve year old CBS news report of the event (Seelye, 2008) are illustrative of the large impact that embarrassing online political videos can have on the communication strategies of political campaigns. On the other hand, if a popular online political video casts their candidate in a positive light or portrays their opponent negatively, campaigns may believe that public statements about the video will improve their standing in the polls, help them secure more fundraising or attract new volunteers. The Webb campaign’s repeated statements about Allen’s use of the word “macaca” (Craig & Shear, 2006; Martin & Ambinder, 2006) exemplify the way that campaigns are likely to opportunistically respond to the expanding popularity of an online video that hurts the image of their opponents. When a large number of people watch an online political video, therefore, bloggers, journalists and campaign members are all likely to start talking about the video because each actor sees it as a way to further their own goals.

Campaign Statements’ Influence on Audience Size, Blog Discussion and Media Coverage

When political campaigns speak about an online political video, online audiences, bloggers and journalists will probably listen. Research into campaign effects has shown that political campaigns can increase voter knowledge (Alvarez, 1997; Bartels, 1997), prime voters to weigh certain issues more heavily in their voting decisions (Johnston et al., 1992; Just et al., 1996) and influence the salience voters attach to political problems (Dalton et al. 1998). At the heart of these studies is the idea that statements made by candidate campaigns can lead members of the public to view political issues in a particular way and to take certain kinds of political actions. If campaigns decide to prominently discuss the emergence of an online political video, it is likely that Internet users and bloggers (who act as “gatekeepers” for the online world), will become interested in the video. The result should be growing viewership statistics and more discussion about the video in the blogosphere.

Campaign statements about an online political video are also likely to motivate journalists to cover the video. Communications and public relations scholars have consistently shown that information resources from campaigns, such as political advertisements, direct mail, speeches, press releases and Web page content, can have a strong influence on the mainstream media agenda (Gandy, 1982; Roberts & McCombs, 1994; Turk, 1986; Turk & Franklin, 1987; Tedesco, 2002; Tedesco, 2005a). Kaid’s (1976) study of campaign influence on media coverage, for example, discovered that over 30 percent of newspapers ran stories that copied candidate press releases verbatim. More specific to the context of recent presidential campaigns, Miller et al. (1998) found evidence that the campaign communications of Lamar Alexander and Steve Forbes set the agenda for three major newspapers in 1996 and Tedesco (2001) discovered that the issue agenda of John McCain’s campaign in 2000 was highly correlated with the agendas of network news organizations. It is also important to point out that news organizations may find it even harder than usual to ignore the content of campaign communications when they focus on online political videos. The media’s desire for novel and timely storylines (Graber, 2006) may

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18 There is even evidence that changes in the media environment may be increasing the impact of campaigns on the media agenda. As Tedesco (2005b) argues, today’s growing “interdependence between candidates and media, coupled with the 24-hour media cycle in modern campaigns, augments the likelihood that information resources from campaigns will have a powerful influence on news agendas” (92).
lead them to seize upon campaign statements about online videos with greater fervor than candidate communications about more traditional subjects. In short, mainstream media organizations seem likely to pick up discussions of online political videos if they are prominently feature in campaign communications.

**The “Yes We Can” Viral Music Video**

In order to explore whether the relationship between online viewership, blog discussion, campaign statements and mainstream media coverage is, in fact, complex and multidirectional, I selected the “Yes We Can” music video. I selected the “Yes We Can” music video as a case study for exploring the dynamics of viral videos because it was the most popular and high profile online political video of the 2008 campaign. The video, which included cameo appearances by celebrities such as John Legend, Herbie Hancock, Scarlett Johansson, Kareem Abdul-Jabbar and Kate Walsh, featured black and white clips of Obama’s concession speech following the New Hampshire primary set to music written by will.i.am of the hip hop group “The Black Eyed Peas.” The video was completely “supporter-generated” – with the Obama campaign playing no role in its production.

After debuting the video on ABCNewsNow's “What's the Buzz” on February 1, the video’s producers released the video on YouTube and DipDive (http://www.dipdive.com) early on February 2. Versions of the video of the video quickly spread across YouTube and, within three days, there were over 50 different postings of the video on the site. By the time Obama secured the nomination, the video had been viewed over 20 million times on various Internet sites, inspired a number of widely viewed spoofs and been awarded an Emmy for Best New Approaches in Daytime Entertainment (Reuters, 2008).

**Data**

Systematically studying the dynamic relationship between online viewership, blog discussion, campaign statements and mainstream media coverage requires daily measures of each variable over a significant period of time. In order to measure the number of views the “Yes We Can” video received during its first month online (February 2nd through March 2nd), I relied on data from TubeMogul (http://www.tubemogul.com). TubeMogul is a website that aggregates video viewing data from sites such as YouTube, Metacafe and Daily Motion.

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19 The official version of the video was posted by the producers under username “WeCan08” and can be found at: http://www.youtube.com/watch?v=jiXvqcx-mYY.
20 The two most popular spoofs of “Yes We Can” were “john.he.is” (http://www.youtube.com/watch?v=3gwgEneBKUs) and “No You Can’t” (http://www.youtube.com/watch?v=EUKING8DCUo).
21 The video also earned will.i.am a Webby Award for Artist of the Year.
22 Theoretically, data could be gathered on even shorter units of time than days. The relationship between audience size, blog discussion, media coverage and campaign statements might usefully be explored, for example, at the hourly level. As a practical matter, however, analyses focusing on these shorter intervals of time run up against a host of methodological issues. Most significantly, traditional media stories are typically aired or printed only once a day and tracking viewership statistics on an hourly basis over a long period of time is a Herculean task even if researchers have the uncanny foresight to track a viral video from the moment it is posted online.
Tubemogul allows users to track any video they want and provides daily data on the number of times a video was viewed, the number of comments the video received, the number of ratings that were given and the overall ratings scores. As such, TubeMogul is an excellent resource for scholars interested in studying the rise, spread and impact of online political videos. Using the unique viewership data provided by TubeMogul’s tracking software, I was able to gather data on the number of views that the official (and most popular) posting of the “Yes We Can” video received each day on YouTube.\textsuperscript{23}

There is no immediately obvious way to measure the amount of blog discussion of an online video and, as a result, there are important questions about how to proceed in tracking the videos that are given attention by bloggers. Which blogs, for example, should be used to gather data on the videos of interest – only A-list blogs, only less popular blogs or a mix of both? Similarly, how should “discussion” of a video be measured – by mentions of the title, by mentions of certain keywords, by use of links to the video or by some other factor?

Following the number of links that lead to the video is likely to provide a better measure of blog discussion of online political videos than keyword searches for three reasons. First, bloggers rarely use the complete title of a video in their post and, as a result, keyword searches based on the title of an online video can systematically underestimate the level of blog discussion of the video. Second, searches for videos that have common titles, such as Obama’s frequently repeated phrase “Yes We Can,” can systematically overestimate the amount of blog discussion about an online video because it will produce many posts that have nothing to do with the video. Finally, following the links that bloggers use is likely to produce accurate estimates of blog discussion because bloggers are likely to link to the sites they are discussing – particularly when the site contains a video.

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For these reasons, I decided to use Technorati (http://www.technorati.com) to track the number of blog links to various versions of the “Yes We Can” video for each day of the study.\textsuperscript{24} I decided to use Technorati not only because it collects data on over 110 million blogs but also, and more importantly, because it provides a URL search function that allows researchers to easily track the links that bloggers use in their posts on a day to day basis.

To assess the number of campaign statements about the video, I employed two separate measures. First, I recorded the number of times various versions of the video\textsuperscript{25} were linked to on the Obama campaign’s (http://my.barackobama.com/page/content/hqblog) and the McCain campaign’s (http://www.johnmccain.com/blog) official blogs. Second, I tracked the number of times the video’s title – “Yes We Can” – and its artist – “will.i.am” – were mentioned in emails from the Obama and McCain campaigns.

\textsuperscript{23} Although tracking viewership for each of the over 60 versions of the video would have been the best research strategy, TubeMogul automatically collects data for only those videos that users submit to the system and, as a result, does not have archived daily data on the less popular postings of the video.

\textsuperscript{24} The links that I tracked were: http://www.yeswecansong.com, http://www.youtube.com/watch?v=BHEO_fG3mm4, http://www.youtube.com/watch?v=1yq0tMYPDJQ and http://http://www.youtube.com/watch?v=jiXyqcx-mYY. These versions of the video were selected because they were posted on February 2, 2008 and because they each attracted over 500,000 views.

\textsuperscript{25} I tracked the same four links on the Obama and McCain blogs that I tracked using the blog data from Technorati.
In order to measure mainstream media coverage of the video, I used a daily count of the number of articles printed in “U.S. newspapers and wire services”\(^26\) and the number of stories aired on local and national news broadcasts that mentioned both “Yes We Can” and “will.i.am.”\(^27\) As a result of the fact that print and broadcast coverage were closely related (r = .61), I decided to create an index of overall media coverage for the video.\(^28\) The Cronbach’s alpha for this index was .76.\(^29\)

**Results**

Some elements of the relationship between online viewship, blog discussion, campaign statements and media coverage can be discerned by simply looking at how each of these variables changed during the video’s first month online. As Figure 2 shows, the video was an instant hit – drawing over 150,000 views on February 2\(^{nd}\). The audience for the video grew each of the next three days and reached its peak on February 5\(^{th}\) – when it was viewed nearly 600,000 times. The number of views steadily declined over the next few weeks without any major surges in views. Overall, the official version of the video was viewed over 5.4 million times during its first month on YouTube.

Figure 2 suggests that many of the views that the video received may have been the result of bloggers linking to it. As Figure 2 shows, well over 1000 bloggers linked to the site as soon as it appeared on February 2. The number of blog links to the video remained high over the next two days and then started falling off dramatically. As Figure 2 also shows, the number of daily blog posts linking to the video never exceeded 300 after February 6\(^{th}\) – the same day that video views began declining. Views of the video and blog discussion, in other words, followed very similar patterns of rise and decline.

The Obama campaign also seems to have also played a role in alerting Internet users to the video. Two posts on the campaign’s blog linked to the video on February 2\(^{nd}\) and two days later, on the eve of the Super Tuesday primaries, Michelle Obama sent an email to supporters of the campaign that said, “Sharing this video, which was created by supporters, is one more way to help start a conversation with your friends, family, coworkers, and anyone else who will be voting soon about the issues important to them in this election.”\(^30\) Unlike bloggers, however, the Obama campaign’s attention to the video was decidedly short lived. As Figure 2 shows, the campaign did not mention the video in any blog posts or official emails after February 5\(^{th}\).

Perhaps unsurprisingly, the McCain campaign decided to not attract any further attention to the

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\(^{26}\) More specifically, I searched the Lexis-Nexis archives of “U.S. newspapers and wires” for stories that mentioned the two phrases.

\(^{27}\) I decided to search the print and broadcast media archives for the occurrence of both words because searching only for “Yes We Can” was likely to produce too many stories that had nothing to do with the video. Indeed, because the Obama campaign frequently used “Yes, we can” as a slogan, searches relying only on this phrase consistently overestimated the amount of discussion of the video.

\(^{28}\) Here “r” refers to the Pearson product moment correlation coefficient – which measures the linear association between two variables.

\(^{29}\) Cronbach’s alpha provides one method of assessing how well a group of variables measure a single latent construct.

\(^{30}\) The Obama campaign also dedicated a web page to the video that same day on their official website. The page can be found at: [http://my.barackobama.com/page/invite/yeswecanvideo](http://my.barackobama.com/page/invite/yeswecanvideo).
video and chose to ignore it in all of its blog and email communications during February and March.

The online buzz created by bloggers, the support of the Obama campaign and the increasingly large number of people who had seen the video seems to have quickly captured the mainstream media’s attention. After ignoring the video on February 2\textsuperscript{nd} and February 3\textsuperscript{rd}, both the print and broadcast media picked up the story of the video and began discussing its electoral implications. The number of stories rose and remained high until steeply declining on February 8\textsuperscript{th}. During the rest of February, the mainstream media periodically ignored and then discussed the video in its coverage of the primary elections. As Figure 2 shows, however, the ebb and flow of media coverage looks very similar to the ebb and flow of viewership and blog discussion on a two day lag.

![Figure 2 – Online Viewership, Blog Discussion and Media Coverage of “Yes We Can”](image-url)
While looking at the time series graphs presented in Figure 2 provide a general sense of how online viewership, blog discussion, campaign statements and mainstream media coverage interact, I also used vector autoregression to better specify the complex interplay between these variables. VAR models use lagged values of all of the variables in a system of interrelated variables to predict the current value of each variable in the system (Bartels, 1996). This approach is attractive for my purposes here because VAR models, unlike structural equation models, relax a priori assumptions about the direction of causality between variables and the number of time lags to be included in the analysis. Indeed, Wood and Peake (1998) suggest that VAR is an effective methodology for determining causal relationships when theory is unclear or underdeveloped.

The first step in VAR analysis is to determine the appropriate number of lags to include in the system of equations that is being estimated. Following Sims (1980), I determined the number of lags to include in each model by sequentially adding lags to the system of equations and testing for the statistical significance of each additional lag using a modified F-test. Additional lags need to lead to a significant improvement in the fit of the VAR model in order to be included. Based on Akaike’s Information Criterion (AIC) and the Final Prediction Error (FPE) as well as degree of freedom considerations, I selected a lag period of two days.

The next step in VAR analysis is to conduct “Granger causality” tests in order to detect the causal relationships that exist between the variables in the system of equations. “Granger causality” is based on the idea that “variable X causes another variable Y, if by incorporating the past history of X one can improve a prediction of Y over a prediction of Y based solely on the history of Y alone” (Freedman, 1983; 328) and Granger causality tests, therefore, provide statistical evidence for whether lags of one variable Granger cause any of the other variables in the system. More specifically, a chi-squared statistic is used to test the null hypothesis that the lags of the independent variables are significantly different from zero. A significant chi-squared test means that the independent variable “Granger causes” the dependent variable while an insignificant chi-squared test means that the independent variable does not “Granger cause” the dependent variable.

For an overview of the use of vector autoregression in political science see Freeman et al. (1989). For empirical examples of VAR see Wood and Peake (1996) and Bartels (1996).

In the context of this study, VAR models the activity of each actor as a function of the past behavior of the other three actors in the analysis.

More specifically, VAR treats all of the variables in the system as endogenous to the equation rather than forcing the researcher to specify the relationship between the variables prior to the analysis.

Determining the appropriate number of lags (p) in VAR analysis is crucial. As Enders (2004) writes, “appropriate lag length selection can be critical. If p is too small the model is misspecified; if p is too large, degrees of freedom are wasted” (281). In addition, Gujarati (1995) points out that Granger exogeneity tests can be highly sensitive to lag lengths.

Although it is possible to include separate lag lengths for variables, most studies using VAR analysis use the same lag length for all equations (Enders, 2004).

Because VAR is sensitive to non-stationarity in the data, I conducted a Dickey-Fuller test and examined the autocorrelation and partial autocorrelation coefficients for each of the time series. While blog, campaign and media discussion of the video showed strong evidence of stationarity, the number of views did not. In order to achieve stationarity, I differenced the number of views variable one time.
In order to determine the factors driving the “Yes We Can” viral video phenomenon, I conducted a Granger causality test for the four equation system that included my measure of online viewership (the number of views for “WeCan08’s” video on YouTube), my measure of blog discussion (the number of bloggers linking to the video), my measure of campaign statements (the number of posts linking to the video on the official Obama campaign blog and the number of emails from the Obama campaign mentioning the video) and my measure of media coverage (the index of the number of print and broadcast stories citing the video’s title and its maker). Table 1 displays the results of the Granger causality test. Each dependent variable is listed in the first column along with all of its independent variables in the second column. Figure 3 presents the same information in a slightly different form – a diagram showing the observed relationships between each of the variables.

The Granger causality test results presented in Table 1 and in Figure 3 reveal a number of interesting relationships. First, support from the Obama campaign was crucial in making the “Yes We Can” video go viral. As Table 1 and Figure 3 show, the number of statements made by the campaign exerted a significant influence on the size of the online audience, the amount of discussion in the blogosphere and the number of media stories about the video. When the campaign sent emails and posted messages on their official blog about the video, Internet users, bloggers and journalists seem to have taken this as a cue that the video was something worth paying attention to. Although, as suggested above, there were many reasons to expect that campaigns could produce these kinds of effects on viewership and discussion of online political videos, these findings do provide the first empirical proof that campaigns can function as more than passive bystanders when their supporters create videos and post them online. Simply put, these results suggest that campaigns can make all of the difference in transforming supporter-generated videos from undiscovered white noise to a viral video phenomenon.

Second, bloggers also played an important role in drawing the attention of Internet users and journalists to “Yes We Can.” As Table 1 and Figure 3 show, blog discussion exerted a significant impact on both the number of people who watched the video and on the amount of media coverage the video received. The fact that blog discussion produced more views and more news coverage of the video should not be surprising. Indeed, as suggested above, a large body of research shows that bloggers can have a major impact on what media chooses to cover (Drezner & Farrell, 2004; Roth, 2004; Smolkin, 2004; Wallsten, 2007) and the links provided in blog posts can drive up viewership statistics by making it easy for interested readers to locate and watch the video online. The fact that blog discussion of “Yes We Can” significantly influenced online viewership and media coverage is yet another example of the increasingly important role that bloggers are playing in structuring media coverage of and public opinion about political events. These findings do, however, make a strong case that online political video makers should cater to the interests of bloggers if they want their videos to attract a large audience in both the online and offline political worlds.

37 The VAR was also checked to ensure stability. All of the eigenvalues were within the unit circle, thereby, satisfying the stability condition.
38 The chi-squared statistic represents the results for testing the null hypothesis of “Granger exogeneity” – that all daily lagged values of the independent variables have true coefficients of zero, so that the past history of that variable contributes nothing to our ability to account for the current value of the dependent variable.
Third, the large number of views the “Yes We Can” video attracted with Internet audiences was an important part of its ability to attract attention beyond the online world. Indeed, the Granger causality test results presented in Table 1 and Figure 3 show strong evidence that the size of the online audience influenced the amount of mainstream media coverage “Yes We Can” received and the extent to which the Obama campaign supported the video. Interestingly, the number of views the video received did not significantly effect the level of discussion about the video in the blogosphere. Based on this evidence, it appears that journalists and members of political campaigns may be carefully tracking the popularity of the content posted on sites like YouTube, Metacafe and Daily Motion in order to determine what videos they should discuss while bloggers tend to base their decisions about what to talk about on other considerations – such as what campaigns are saying. Put differently, although bloggers may discuss online political videos in the absence of gaudy viewership statistics, a large audience seems to be a necessary condition for journalists and campaign members to devote time and energy to discussing an online political video.

Finally, although journalists covered “Yes We Can” extensively during its first month online, there is no evidence that media reports contributed to the video going viral. As Table 1 and Figure 3 show, media coverage failed to exert a significant influence on blog discussion, campaign statements or online viewership. This finding was highly unexpected – all of the previous literature on the media’s agenda setting power suggested that widespread news coverage of an event like the video would lead members of the public to seek it out online, bloggers to blog about it on their blogs and the campaign to discuss it in their official statements. Of course, the fact that media coverage was not a significant influence on blog discussion, campaign statements or online viewership does not mean that the media is entirely unimportant when it comes going viral. There is no doubt, for example, that television broadcasts and newspaper stories about “Yes We Can” increased the overall number of people who learned

Figure 3 – Observed Relationships between Online Viewership, Blog Discussion, Campaign Support and Media Coverage

<table>
<thead>
<tr>
<th>Online Viewership</th>
<th>Blog Discussion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Campaign Statements</th>
<th>Media Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

YouTube and the 2008 Election Cycle in the US 54
about and saw the video. These findings do, however, establish that journalists are likely to be followers rather than leaders in the process of creating viral political videos.

Table 1 – Granger Causality

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>Independent Variables</th>
<th>Chi-Square</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Online Viewership</td>
<td>Media Stories</td>
<td>0.19</td>
<td>.91</td>
</tr>
<tr>
<td></td>
<td>Blog Discussion</td>
<td>7.95</td>
<td>.02</td>
</tr>
<tr>
<td></td>
<td>Campaign Statements</td>
<td>41.59</td>
<td>.00</td>
</tr>
<tr>
<td>Media Stories</td>
<td>Online Viewership</td>
<td>7.39</td>
<td>.03</td>
</tr>
<tr>
<td></td>
<td>Blog Discussion</td>
<td>5.94</td>
<td>.05</td>
</tr>
<tr>
<td></td>
<td>Campaign Statements</td>
<td>20.28</td>
<td>.00</td>
</tr>
<tr>
<td>Blog Discussion</td>
<td>Online Viewership</td>
<td>1.66</td>
<td>.44</td>
</tr>
<tr>
<td></td>
<td>Media Stories</td>
<td>2.81</td>
<td>.25</td>
</tr>
<tr>
<td></td>
<td>Campaign Statements</td>
<td>19.89</td>
<td>.00</td>
</tr>
<tr>
<td>Campaign Statements</td>
<td>Online Viewership</td>
<td>8.84</td>
<td>.01</td>
</tr>
<tr>
<td></td>
<td>Media Stories</td>
<td>0.4</td>
<td>.81</td>
</tr>
<tr>
<td></td>
<td>Blog Discussion</td>
<td>2.93</td>
<td>.23</td>
</tr>
</tbody>
</table>

Significant entries are in **bold**.

Conclusion

This paper began by asking: what is the relationship between audience size, blog discussion, campaign statements and mainstream media coverage of online political videos? Using vector autoregression to analyze the data from the most popular viral political video of the 2008 primary campaign – will.i.am’s “Yes We Can” music video – I found strong evidence that the relationship between these variables is complex and multi-directional. More specifically, I found that bloggers and members of the Obama campaign played crucial roles in convincing people to watch the video and in attracting media coverage while journalists had little influence on the levels of blog discussion, online viewership or campaign statements. Bloggers and campaigns, in other words, seem to occupy a unique and influential position in determining whether an online political video goes viral.

In addition to providing the first glimpse into the dynamics that create a viral political video, the findings presented in this paper make contributions to three separate bodies of research. First, the conclusions presented here contribute to the emerging literature on the
consequences of political blogging by suggesting that the interest of bloggers is a central factor in explaining the rise, spread and decline of viral videos. Second, the conclusions presented here contribute to the literature on media agenda building by detailing the factors that drive journalists to cover developments in the online world. Finally, the conclusions presented here contribute to studies of political campaigns by highlighting the role that campaign actions can play in promoting supporter-generated content online.

Future research should build on the findings presented here in a number of ways. First, studies of other political videos are needed in order to determine whether online views, blog discussion, campaign statements and mainstream media coverage interact with and influence each other in the same ways that I have found here. There are many reasons to expect that the dynamics driving the “Yes We Can” video were unique – it was filled with celebrity entertainers, it became popular almost immediately after it was posted and it was the most popular political video of the 2008 campaign. For online political videos that do not have this distinct set of characteristics, audience size, blog discussion, campaign statements and media coverage may influence each other in different ways. The number of online views, for example, may be an important factor in driving blog discussion when no celebrities are featured in the video because it can provide a compelling reason for talking about the video. Similarly, blog discussion may not exert such a strong influence on media coverage of online political videos when the number of people who have viewed the video is not rising as quickly as it did in the case of the “Yes We Can” video because blog discussion alone may not be enough to warrant coverage. Future studies, therefore, need to sample a larger number of online political videos in order to get a better, more general sense of how audience size, blog discussion, campaign statements and mainstream media coverage influence each other.

Second, in order to gain a fuller understanding of the ways that viral political videos emerge, spread and influence elections, data on how online political videos are passed from person to person through email and instant messages is needed. While blog discussion, media coverage and campaign statements are certainly important in diffusing online political videos, most people who find out about an online political video probably find out about it through email and instant message communication with friends and family. Recent surveys by the Pew Internet & American Life Project, for example, have found that 75 percent of online video viewers have received links to online videos via email or instant messages (Madden, 2007) and that 9 percent of Internet users forwarded or posted someone else’s political audio or video recordings using email or instant messages (Smith & Rainie, 2008). Because I did not include measures of these potentially important factors in this analysis, the statistical findings presented here could be biased and misrepresent the relationship between online viewership, blog discussion, campaign statements and media coverage. Future work on the relationship between these variables should, therefore, try to include measures of email and instant message diffusion in order to ensure accurate estimates about the complex influences that online viewership, blog discussion, campaign statements and media coverage exert on each other.39

39 This data, however, is very difficult to come by and it may not be possible for academic researchers to obtain information about video diffusion through emails and instant messages. Google – in an attempt to increase ad revenue from YouTube – has formulated a special algorithm to predict which videos are about to “go viral.” Although the details of the algorithm are not publicly available, Google has said that it uses word of mouth (contained in instant messages, blogs and emails) to make predictions about which videos will become popular (Shankland, 2008).
Third, given the central role that bloggers play in the creation of viral political videos, future research should explore the factors that lead bloggers to discuss certain online videos and to ignore others. One potentially interesting line of inquiry would be to explore the role that ideology and partisanship play in the linkage patterns of bloggers. A number of recent studies have suggested that political bloggers link primarily to sites that share their ideological predispositions. Adamic and Glance (2005), for example, analyzed linkage patterns among popular political blogs during the final two months of the 2004 election campaign and found a great deal of fragmentation along ideological lines – with conservative bloggers being much more likely to link to other conservatives and liberal bloggers being much more likely to link to other liberals. Similarly, Hargittai et al. (2007) examined links between A-list political blogs during three one-week periods in 2004 and found that, although there is some cross-ideological linking between blogs, conservative and liberal bloggers are vastly more likely to link to blogs that share their point of view. Future research should explore the extent to which bloggers link to videos that confirm their predispositions and, more importantly, whether ideological or partisan linking tendencies have any influence on the role that bloggers play in spreading online political videos.

Finally, future research is needed to assess the impact that viral political videos have on members of the mass public. As suggested above, viral videos are a potentially important influence on electoral campaigns not only because so many people watch them but also because bloggers and journalists discuss them in their coverage of political events. In addition to being viewed nearly six million times, for example, the “Yes We Can” video was linked to on over 7000 blog posts and discussed in nearly 400 print and broadcast news stories in the first month after its release. Unfortunately, little is known about how all of this attention influences the attitudes and behaviors of members of the public. Did exposure to media coverage of “Yes We Can” lead undecided voters to watch the video and support Barack Obama? Did blog discussion of the video motivate supporters to contribute money or volunteer their time to the Obama campaign? Ultimately, the true importance of viral videos cannot be fully assessed until systematic empirical research on individual level questions such as these is completed.

References


References


YouTube and the 2008 Election Cycle in the US


Abstract

The 2007 CNN-YouTube Presidential Candidate Debates provide a unique opportunity for the American populace to become engaged in national political discussion through the submission of video questions to YouTube for inclusion in two nationally broadcast debates (Democratic and Republican) on CNN. By using content analysis, a sample of the 7,916 videos submitted was examined for the demographic populations represented and characteristics of submitted questions in an effort to ascertain if the debates were a viable method for increasing citizen mobilization and redefining democratic participation. The study found that traditionally politically disengaged populations (specifically minorities and young voters) were present in a significant proportion of the videos and that individuals used the debates as an opportunity to ask politically relevant and substantive questions of the candidates.
In June of 2007 CNN and YouTube made a collective announcement that they forecasted may usher in a new era of political debates. The creation of the CNN-YouTube Presidential Candidate Debates was an attempt to “take a bold step of embracing the ever-increasing role of the Internet in politics” and “engage more viewers – and potential voters – than ever before” (YouTube Press Release, 2007). The debates marked a historical shift, where, for the first time candidates answered video questions developed by the American public and submitted to YouTube in a live candidate forum on broadcast television (YouTube Press Release, 2007). The debates also provided the first opportunity for the American public to engage candidates on a national stage.

By moving away from Web sites that simply disseminate information to a venue where citizens could use Internet technologies to directly question candidates, these debates moved online politics from being relatively static to include dynamic forms of political interaction. Although some Internet technologies, such as blogs, previously allowed for interactive citizen-to-citizen political dialogue, these debates promoted two processes important for the development and sustainment of national democratic engagement: increased citizen mobilization and a redefinition of political participation.

Prior to the debates, some advocated that they would be, “the most earthshaking change in communication technology for presidential politics since the Kennedy-Nixon debates in 1960” (The NY Times, 2007) and others argued that they were simply flashy political stunts. While taking a stance on this would be tenuous at best, it is possible, through an exploratory examination of the video submissions to gain a descriptive understanding of the debate contents. Although traditional debate studies may focus more specifically on question analysis, this study was interested in what demographic populations chose to use this format as a means of democratic engagement and how, when given the chance, the American public would choose to question potential political leaders.

**Increasing Citizen Mobilization**

A great deal of research has been conducted regarding diminishing levels of civic engagement amongst the American populous, or the perception thereof. Prior to discussing some of these reasons however, it is first imperative to operationalize this study’s interpretation of engagement. Although civic engagement, argued by some to be the driving force of democracy, is frequently characterized simply by the act of voting, it is in reality defined by activities that that address public issues or concerns through methods that are not necessarily connected to elections or government, such as volunteering and joining associations (Delli Carpini, 2004; McKinney, Kaid, & Bystrom, 2005). Conversely, political engagement is more directly related to voting and is characterized by activities that have “the intent or effect of influencing government action – either directly by affecting the making or implementation of public policy or indirectly by influencing the selection of people who make those policies” (Verba, Schlozman, & Brady, 1995, p. 38). The conundrum, however, lies in the fact that although voting statistics cannot completely contextualize American democratic engagement, they are the only readily available measure of national political participation. Because definitions of what constitutes civic and political engagement differ across the literature, this study will follow Delli Carpini’s (2004) ideal that both can be related under the broader term of democratic engagement; encompassing, therefore, voting statistics as a discussion point for increased engagement.
The collectively low turnout level of the voting-age population in American presidential elections has been the focus of a great deal of concern over democratic engagement. Prior to the beginning of the 21st century, political participation declined on average by 4% in every election after 1960, with only 49% of eligible citizens voting in 1996, the lowest level of voter turnout in any presidential election (Levine & Lopez, 2002). Although the elections in the 21st century have seen an overall increase in voting turnouts, the 56.8% turnout in 2008 was still markedly lower than turnout percentages in the 1960s and still serves to rank the United States far behind many of the world’s democratically elected governments in terms of political participation.

The historic decline and notions of ambivalent civic attitudes has been framed as a crisis of civic culture and citizenship (Rideout & Mosco, 1997), with some suggesting that people intentionally avoid allowing public issues to contextualize their lives by avoiding political conversation and participation (Eliasoph, 1997). Diminishing trust in the political system, fostered by confusing voting practices, feelings of political alienation, the rise of identity politics, and partisan discourse, have also served to limit citizen’s democratic engagement (Culver, 2005; Denton & Woodward, 1998; Gans, 2005). Changing national and community structures, such as the decline in civic education and newspaper reading, as well as an eroding social capital and diminished community connectedness, have also led to a limited understanding of the American political system, resulting in limited democratic participation and declining political efficacy (Ahmed, 2005; Gans, 2005; McLeod, Eveland, & Horowitz, 1998; McKinney, Kaid, & Bystrom, 2005; Putnam, 1995, 2000).

Because democracy is fostered by democratic dialogue and engagement, it is vital that viable solutions to increase individual’s feelings of efficacy and increase democratic engagement are discussed and investigated (Andolina, Jenkins, Keeter, & Zukin, 2002; McKinney, Kaid, & Bystrom, 2005). Perhaps one key to sustainably increasing democratic engagement can be found in the use of innovative Internet technologies, such as YouTube, that encourage participation and mobilization through alternative forms of democratic engagement (Culver, 2005; Davis, 2002; Howard, 2006). Because the Internet allows individuals to move past the confines imposed by traditional media and traditional political campaigning, the ability to increase citizen mobilization is a realistic and attainable goal (Bonner, Carltiz, Gunn, Maak & Ratliff, 2005; Chadwick, 2005; Davis, 2002; Delli Carpini, 2000; Hill & Hughes, 1997; Xenos & Moy, 2007; Zhang & Chia, 2006).

Redefining Political Participation

The use of Internet technologies also allows for a redefinition of what it means for an individual to be democratically engaged. It is assumed that, if correctly utilized, the Internet can provide an arena for significant democratic discussion and engagement to occur. The implementation of Internet technologies can facilitate interactive engagement, permitting individuals to become democratically engaged on a global level (Mandelson, 1998). It is also inexpensive to reach individuals through Internet-based technologies and increasingly possible to mobilize citizens through the use of such technologies (“So Where’s the Campaign?” 1998). The Internet’s interactivity allows for transnational democracy to thrive and encourages networking, the generation of new spaces, and the emergence of new types of communities, all of which may help individuals to redefine what it means to be democratically engaged (Cammaerts & Van Audenhove, 2005; Greenwood, 1997). The use of the multifaceted platforms increase
opportunities for democratic connectedness to occur and the implementation of dynamic communication tools, such as forums and video responses, foster the use of community-building features that are important in generating democratic engagement and potentially mobilization.

The creation of the CNN-YouTube debates allowed for three distinct politically redefining processes to occur: increased audience participation, increased connection opportunities, and extending the debates beyond the broadcast. All of these processes were important steps in not only increasing access to political information, but also in encouraging democratic discussion, which can be a powerful force in opening up closed societies, or closed sociological practices (Wilhelm, 1990) as well as redefining communication and the ways in which individuals can become democratically involved (Katz, 1996).

**Audience Participation**

For the first time in the history of national political debate, the public could become instrumentally involved in the creation and dissemination of debate content; redefining not only participation, but redefining a political institution as well. Although few debate formats have allowed for minimal audience involvement, for the most part, audience participation is strictly restricted (Blimes, 1999; Commission on Presidential Debates, 2004; Seltz & Yoakam, 1960). Most debates begin with statements such as “there is an audience here in the hall, but they have been instructed to remain silent throughout” and “they [the audience] are not here to participate, only to listen” (Commission on Presidential Debates, 2004), making it clear that public participation in debate proceedings is not welcome. In contrast, the CNN-YouTube debates welcomed the public into a static political process by expanding traditional political margins and hierarchies, providing for a redefined notion of participation and, possibly, increased notions of personal political efficacy, both of which could be significant factors in future mobilization.

**Increased Connection Opportunities**

Increasing opportunities for connectedness with other individuals is another element that makes Internet-based technologies ideal for redefining political participation. While many elements on political Web sites appear to foster democratic engagement, in reality most are simply extensions of the one-to-many communication format indicative of traditional media. The CNN-YouTube debates harnessed the power online collectives and provided a forum through which interested individuals could connect, communicate, and become informed through the use of a dedicated, comprehensive campaign Web site (You Choose ‘08: http://youtube.com/youchoose). In contrast to many Web sites that provide partisan information, the You Choose ‘08 site provided a space where all manners of campaign information could be located and discussed.

**Debate Extensions**

Traditionally, political debates are broadcast at certain times, on certain networks with specific, mediated follow-up – resulting in relatively static events that are quite contrary to the robust political discussion they are touted to be. Moving the CNN-YouTube debates online allowed for the life of the debates to be extended far beyond the broadcast events. This move
toward sustainable e-democracy took a vital step forward in redefining the foundations of active
citizenship, reinvigorating the democratic process, and positively (re)engaging citizens in
democratic life (McCullagh, 2003). By ensuring that all debate submissions, candidate answers,
forum discussions and both debates, in their entirety, were available online, for free, CNN and
YouTube were able to guarantee greater and broader access to debate material than ever before;
thus, taking a significant step forward in redefining abilities for political information gathering.

Research Questions

By providing opportunities for audience participation, increasing connections between
the public and presidential candidates, and inviting the public into a traditionally static political
institution, the CNN-YouTube Presidential Candidate Debates provide a good case from which
to examine the potential of Internet-based technologies to address issues of increased citizen
participation and redefined opportunities for democratic engagement.

The following research questions were used to examine which demographic populations
used the debates as a vehicle for democratic engagement and how, when given the opportunity,
the public would choose to question presidential candidates.

RQ1: What percentages of traditionally politically underrepresented/disengaged
populations (minorities and younger voters) are present in the videos submitted to the
CNN-YouTube Presidential Candidate Debates?

RQ1a: Do the representations of traditionally politically
underrepresented/disengaged populations differ between the Democratic and
Republican debates?

RQ1b: Do the representations of traditionally politically
underrepresented/disengaged populations differ between the online population of
videos and those selected for broadcast on CNN?

RQ2: What are the characteristics of the questions submitted to the CNN-YouTube
Presidential Candidate Debates?

RQ2a: Do the characteristics of the questions asked differ between the
Democratic and Republican debates?

Method

In order to ascertain which demographic populations participated in the debates and
elucidate the debate question characteristics, content analysis provided a logical framework for a
descriptive analysis of the CNN-YouTube Presidential Candidate debates.

In an effort to establish if the debates provided avenues for both increased civic
mobilization and redefining participation, the entire population of videos submitted for potential
debate inclusion, amounting to 7,916 (2,989 Democratic and 4,927 Republican) videos, was
examined. Employing a systematic random sampling method, which helped control for any
potential order bias stemming from multiple submissions by the same individual, resulted in a
final sample of 698 videos (341 from the Democratic submissions, 357 from the Republican), at
a 95% confidence level (following Krejci & Morgan, 1970). In order to provide an accurate
comparison between the populations of videos submitted and those broadcast on CNN, all 72 broadcasted videos (38 Democratic and 34 Republican) were also examined. Because YouTube archived all submissions in a section dedicated to the debates, it was easy for coders to access the videos they were to analyze as outlined by the sample frame.

Coding

Coding was completed by the author and two other individuals. In an attempt to avoid a gender-biased analysis, the team consisted of two females and one male; however, all coders were Caucasian, between the ages of 26 and 30, and college educated. The pilot study examined a random sample of 70 videos (35 from each debate) to establish an exhaustive coding scheme; these videos were then incorporated back into the final sample. The nature of the data led to many emergent coding categories, requiring extensive training to control for potential discrepancies. In order to calculate intercoder reliability, each coder independently examined 10% of the sample. However, because the nature of the data violated the assumptions of Scott’s pi, the most common method for assessing reliability in content analyses, the coefficient of reliability was used to ensure consistency amongst coders. To control for coder drift due to the large sample size, reliability was assessed again after completion of 1/3 of the videos. Both initial and coder drift reliabilities are reported below.

The final coding instrument included collaborative opinions from the coding team to ensure that categories were mutually exclusive, exhaustive and equivalent. It was developed using prior studies of political debates and question construction; emergent codes were included when the a priori coding scheme were not exhaustive. Two primary coding categories, each containing multiple subcategories, were established in order to determine the population that participated in the debates and the characteristics of the debate questions they asked (See Appendix A for the complete codebook).

Demographic Characteristics

Basic demographic characteristics that are typically ascertained in political communication research (Carlin & McKinney, 1994; Wright & Davies, 2004) and that could be inferred from the videos were captured. These characteristics include the age (reliability .90; drift reliability .92), sex (reliability .99; drift reliability .99), race (reliability .96; drift reliability .95), and sexual orientation (reliability .99; drift reliability .98) of the video’s primary speakers. It is important to note that sexual orientation was only recorded when specifically stated in the video.

Question Characteristics

Because these debates offered the first opportunity for the American public to directly question presidential candidates, without their questions being moderated or modified, it was important to determine how, when given the chance, the public would question presidential candidates. Examining characteristics such as the use of question set-ups and question complexity may serve to provide an understanding of if the public is to question future leaders.

The following categories were used to determine the characteristics of the questions asked of the presidential candidates. Literature on question construction was consulted to
ascertain elements necessary for appropriate question construction and elucidating levels of complexity found within questions (Dillon, 1983; Mischler, 1991).

It was first necessary to determine if submitters were in fact asking the candidates questions, or simply making a statement (reliability .98; drift reliability .97). Question characteristics included whether the question was open or closed (reliability .97; drift reliability .97), simple or complex (reliability .96; drift reliability .97), the question type (reliability .95; drift reliability .96), the type of question setup (reliability .95; drift reliability .95), the use of counter arguments (reliability .95; drift reliability .95), type of answer requested (reliability .90; drift reliability .91), the inclusion of specific alternatives (reliability .92; drift reliability .94), to whom the question was directed (reliability .98; drift reliability .97), and if the question was politically relevant (reliability 1.0; drift reliability .99). Question topics were recorded in order to determine issue salience; because of the wide variety of question topics, it was not possible to construct an exhaustive coding scheme, so coders wrote in the question topic.

Results

Demographic Analysis of Video Participants

The first research question examined participants’ demographic characteristics; demographic analysis helped determine if members of traditionally underrepresented or disengaged populations participated in the debates. Table 1 summarizes the demographic characteristics of debate participants. The results indicate that 26-40 year-old age range was the most represented, followed closely by those in the 18-25 year-old range. This accounts for a significant difference amongst the ages represented in the online video population $\chi^2(4, N = 671) = 1.02, p < .001$, as individuals 18-40 represented nearly one-half of participants. A significant difference in regard to sex existed, $\chi^2(1, N = 645) = 94.59, p < .001$, with males representing a majority of the participants. A significant racial difference also existed, $\chi^2(5, N = 669) = 1.09, p < .001$, as the majority of speakers were categorized as White.

Demographic differences between debates

Demographic analysis was used to determine if a statistically significant difference existed between demographic representations in the Democratic and Republican debates. Results indicate differences in two of the four demographic variables: age and sexual orientation. Speakers in the Democratic sample were predominately in the 26-40 and 41-55 age groups, whereas more individuals in the Republican sample were either under the age of 18, or in the 19-25 age categories. These differences account for a significant difference in the ages of the speakers, $\chi^2(5, N = 698) = 18.24, p = .003$.

Demographic differences between online population and broadcast videos

Finally, the demographic populations of online video sample and the videos chosen for broadcast were compared to discover if significant differences between these two populations existed which could help determine if CNN’s use of a selection violated the assumptions of user generated content YouTube is known for through the selected of a skewed sample. Interestingly, the data indicate that no significant demographic differences existed between the two samples.
Table 1: Primary Speakers’ Demographics

<table>
<thead>
<tr>
<th>Age Range</th>
<th>Frequency (N)</th>
<th>Percentage</th>
<th>Cumulative Percentage</th>
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<tr>
<td>Under 18</td>
<td>100</td>
<td>14.33%</td>
<td>14.33%</td>
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<tr>
<td>18-25</td>
<td>192</td>
<td>27.51%</td>
<td>41.84%</td>
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<tr>
<td>26-40</td>
<td>202</td>
<td>28.94%</td>
<td>70.78%</td>
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<tr>
<td>41-55</td>
<td>102</td>
<td>14.61%</td>
<td>85.39%</td>
</tr>
<tr>
<td>Over 55</td>
<td>75</td>
<td>10.71%</td>
<td>96.10%</td>
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<tr>
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<td>27</td>
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<td>100.00%</td>
</tr>
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<td>Total</td>
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</tr>
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</table>

<table>
<thead>
<tr>
<th>Sex</th>
<th>Frequency (N)</th>
<th>Percentage</th>
<th>Cumulative Percentage</th>
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<tbody>
<tr>
<td>Male</td>
<td>447</td>
<td>64%</td>
<td>64.00%</td>
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<tr>
<td>Female</td>
<td>199</td>
<td>28.50%</td>
<td>92.50%</td>
</tr>
<tr>
<td>No Apparent Speaker</td>
<td>13</td>
<td>1.90%</td>
<td>94.00%</td>
</tr>
<tr>
<td>Not Possible to Determine</td>
<td>39</td>
<td>5.60%</td>
<td>100.00%</td>
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<table>
<thead>
<tr>
<th>Race</th>
<th>Frequency (N)</th>
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<tr>
<td>White</td>
<td>426</td>
<td>61%</td>
<td>61.00%</td>
</tr>
<tr>
<td>Black</td>
<td>92</td>
<td>13.20%</td>
<td>74.20%</td>
</tr>
<tr>
<td>Hispanic</td>
<td>81</td>
<td>11.60%</td>
<td>85.80%</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>31</td>
<td>4.40%</td>
<td>90.20%</td>
</tr>
<tr>
<td>Other</td>
<td>28</td>
<td>4.00%</td>
<td>94.20%</td>
</tr>
<tr>
<td>American Indian / Alaskan</td>
<td>13</td>
<td>1.90%</td>
<td>96.10%</td>
</tr>
<tr>
<td>Not Possible to Determine</td>
<td>27</td>
<td>3.90%</td>
<td>100.00%</td>
</tr>
<tr>
<td>Total</td>
<td>698</td>
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</table>

**Characteristics of Questions Asked**

The second research question examined the characteristics of the questions asked in order to ascertain, how, when given the chance, the public would choose to question political candidates. The data indicate that most submitters, 87.1% \((N = 608)\) actually did ask questions, versus using the forum to make statements to the candidates and a majority \((84.8\%, N = 592)\) of the questions would be considered politically relevant. A majority of the questions \((76.2\%, N = 532)\) were open-ended and framed simply \((67.9\%, N = 472)\). A significant difference existed in regard to question complexity, \(\chi^2(1, N = 694) = 92.96, p < .001\), with a majority of the questions being simply stated.

Table 2 illustrates the how frequently certain question characteristics were employed by video submitters. The most common type of questions were “what” questions followed by “do”
questions; A significant difference existed between the types of question asked in the online submissions, $\chi^2(9, N = 698) = 998.65, p < .001$, with what questions predominating. Set-ups were used in a majority of the videos; the choice of setups differed significantly, $\chi^2(3, N = 698) = 1.47, p < .001$, with mentioning a name and hometown accounting for roughly half of the setups. A significant difference existed in the use of counter arguments, $\chi^2(2, N = 698) = 3.59, p < .001$, with fewer than half (44.3%, $N = 309$) of the videos using them. Most submitters (65.5%, $N = 457$) wanted the candidates to take an issue stance in their answer and most questions (71.9%, $N = 502$) did not provide the candidates with specific alternatives from which to choose. A significant difference existed with regard of whom the questions were directed to, $\chi^2(2, N = 698) = 422.3, p < .001$, with a majority of the questions being directed to all candidates.

**Topic Salience**

The results indicate that five most prominent question topics related to domestic concerns (e.g., “What will you do as President to ensure the safety of America?”); education (e.g., “What will you do as president to make our schools less about testing and more about learning?”); Iraq (e.g., “What sacrifices have the candidates made for the War in Iraq like the ones they are asking of American families?”); healthcare (e.g., “Our healthcare currently ranks at #37 but how will we rank after 8 years of your presidency?”); and political qualification questions (e.g., “What do you regard as your responsibility to protect and preserve the Constitution?”).

**Question differences between debates**

The research was also interested in determining if a statistically significant difference in question characteristics existed between the Democratic and Republican debates. It is indicated by the data that the only variable with a significant difference was in question relevance, $\chi^2(1, N = 698) = 15.71, p < .001$, with the Republican submissions containing almost twice as many (20.4%, $N = 73$) questions deemed irrelevant than the Democratic (9.7%, $N = 33$) submissions. No significant differences existed regarding any of the other question characteristic variables.

**Question differences between online population and broadcast videos**

Finally, question characteristics between the online video population and the videos chosen for broadcast were compared to discover if significant differences between these two populations existed. Two significant differences between the populations were uncovered. Videos chosen for broadcast included a significantly higher use of counter arguments, $\chi^2(1, N = 770) = 18.5, p < .001$, (N = 51) and there was also a significant difference in the answer type requested, $\chi^2(1, N = 770) = 12.13, p = .007$, with more videos in the archived sample (N = 36) requesting balanced answers.
Table 2: Question Characteristics

<table>
<thead>
<tr>
<th>Question Type</th>
<th>Frequency (N)</th>
<th>Percentage</th>
<th>Cumulative Percentage</th>
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<tbody>
<tr>
<td>&quot;What&quot;</td>
<td>318</td>
<td>45.58%</td>
<td>45.80%</td>
</tr>
<tr>
<td>Multiple Question Types</td>
<td>75</td>
<td>10.70%</td>
<td>56.28%</td>
</tr>
<tr>
<td>&quot;Do&quot;</td>
<td>54</td>
<td>7.74%</td>
<td>64.02%</td>
</tr>
<tr>
<td>&quot;How&quot;</td>
<td>52</td>
<td>7.45%</td>
<td>71.47%</td>
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<tr>
<td>&quot;When&quot;</td>
<td>45</td>
<td>6.45%</td>
<td>77.92%</td>
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<tr>
<td>&quot;Why&quot;</td>
<td>34</td>
<td>4.87%</td>
<td>82.79%</td>
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<tr>
<td>&quot;Where&quot;</td>
<td>24</td>
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<td>86.23%</td>
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<td>6</td>
<td>0.86%</td>
<td>87.1%</td>
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<tr>
<td>No question / statement</td>
<td>90</td>
<td>12.90%</td>
<td>100%</td>
</tr>
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<td>Total</td>
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Set-Up Type

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<td>Name/Hometown</td>
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<td>44.70%</td>
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<tr>
<td>Narrative/Autobiographical</td>
<td>143</td>
<td>20.50%</td>
<td>65.2%</td>
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<tr>
<td>Situational/Informative</td>
<td>131</td>
<td>18.80%</td>
<td>84.0%</td>
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Answer Requested

<table>
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<th>Answer Requested</th>
<th>Frequency (N)</th>
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<td>Take a Stand</td>
<td>457</td>
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<td>65.40%</td>
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<tr>
<td>Neutral</td>
<td>183</td>
<td>26.20%</td>
<td>91.60%</td>
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<tr>
<td>Balanced</td>
<td>36</td>
<td>5.20%</td>
<td>96.80%</td>
</tr>
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<td>Not possible to determine</td>
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<td>3.20%</td>
<td>100%</td>
</tr>
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Directed To

<table>
<thead>
<tr>
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<th>Frequency (N)</th>
<th>Percentage</th>
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<tr>
<td>All Candidates</td>
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<td>69.10%</td>
<td>69.10%</td>
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<tr>
<td>Multiple Candidates</td>
<td>158</td>
<td>22.60%</td>
<td>91.7%</td>
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<tr>
<td>Specific Candidates</td>
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Discussion

This study was interested in the CNN-YouTube Presidential Candidate Debates’ potential to mobilize citizens and offer a redefined method of political participation. The debates were successful in engaging a large number of people, evidenced both by the submission of nearly 8,000 videos for debate inclusion and the significant viewership\(^1\) generated by the broadcasts – two factors that may play vital roles in the future mobilization of the American electorate.

\(^1\) The Democratic debate in July 2007 had 2.6 million viewers, 400,000 of which were from the sought after 18-34 year-old voter demographic. The Republican debate in November, 2007 had 4.49 million
Increasing Citizen Mobilization

Many factors indicate that the CNN-YouTube debates were a successful vehicle for increasing citizen mobilization. Not only did large numbers of people submit questions and tune in to watch the debates, but the demographic analysis indicates that the debates were successful in engaging traditionally politically underrepresented or disengaged populations. Although, as previously discussed, using alternative methods of engagement is not the same as voting, voting statistics offer a point of comparison through which to examine the data for the current study. A measurable difference, in terms of age, existed between voters in the 2004 election, with voters under 30 accounting for only roughly 17% of total voters (CNN, 2004). While the age categories for the current study are not precisely aligned, the data indicates that a voters under the age of 30 accounted for roughly 41.3% of participants; indicating that the debates were successful in mobilizing young voters, a population heavily courted by politicians and political organizations (Andolina, Jenkins, Zukin, & Keeter, 2003; Galston, 2004).

The results also indicate elevated engagement by racial minorities. In 2004, 11% of voters were Black, 8% were Hispanic, 2% were Asian, and 2% were other racial categories (CNN, 2004). The results for the current study indicate a that 13.2% of participants were Black, 11.6% were Hispanic, 4.4% were Asian and 4% were from other racial categories – indicating that minority populations had higher levels of participation than in the 2004 election. When comparing this data with U.S. Census data, it can be argued that Blacks, which account for 12.2% of the population participated at a higher rate; Hispanics, which make up 14.2% of the population participated at a lower rate than may be expected; Asians, accounting for 4.2% of the population participated at an expected rate; American Indians, which account for 0.8% of the population participated at a higher rate (U.S. Census, 2007); suggesting that the CNN-YouTube debates provided an opportunity to democratically engage minority populations.

Potential impact of the digital divide

While these results are promising, the results also indicate that the digital divide may still be a factor in online democratic engagement. In the 2004 election, women participated at a rate 8% higher than males (McDonald, 2005), yet in the CNN-YouTube debates women participated at a rate 35.5% less than men. Lower female participation may be attributed to differences in Internet adoption rates between sexes, to socioeconomic differences between sexes, especially in cases of single women/mothers (Bimber, 2000). In, regard to race, Internet penetration among minorities, as compiled by the Pew Internet and American Life Project would suggest that minority participation should be higher than the debate participation would suggest. For example, Pew statistics show that 56% of Blacks and 79% of Hispanics have Internet access; however, Blacks made up only 14.9% and Hispanics only 12.8% of this study’s total sample. This may indicate that while participation levels did increase from 2004, overall, minority participation may still be limited; perhaps supporting the argument that that technology itself is a product of social relations, therefore, the dispersion of innovative technologies will favor certain populations or social groups, such as Whites and men (Wajcman, 1995).

viewers, 516,000 from the 18-34 year-old demographic, making it the most watched debate in cable news history (Crupi, 2007; Raby, 2007; Toff, 2007).
Redefining Participation

The simple nature of the CNN-YouTube debates provided an alternative method for individuals to become engaged in political discourse, and therefore, perhaps, also offered a redefinition of what it means to become democratically engaged. By providing a venue through which the public could personally address presidential candidates, the CNN-YouTube debates gave the public a voice in a venue where historically those voices have been silenced.

Examining the characteristics of the questions asked during the debates, provides some insight into how the public would question candidates, what issues were salient to the public, and allow for the refutation of one of the most significant criticisms waged prior to the debates.

The results indicate that although most of the questions were simply phrased, they were politically relevant, open-ended, and requested the candidates take a stand on the issues being discussed; these factors indicate a consciousness of salient political issues, a desire candidates to move away from standard political talking points. In addition, asking questions of all candidates, instead of select few, shows a desire to hear the opinions and plans of multiple candidates.

Participants’ use of question set-ups often added a level of narration and emotion typically not seen in traditional debate formats. For example, a woman prefacing a health care question with a narrative about how her young daughter suffering from cancer does not have access to proper medical care because of insurance restraints alters the questions’ reception. The ability to transform personal experience into a politically relevant debate question provided for a clear redefinition of political discourse and democratic engagement.

Refuting criticism

Capturing the characteristics of the debate questions also allows this study to refute one of the most significant criticisms waged at this debate format: the assumption that the public, because of limited knowledge and skill, would be unable to ask questions that would provide for substantial democratic discussion (Vargas, 2007). The results clearly indicate that the public was more than capable of asking substantive, relevant, and well-thought out questions using the CNN-YouTube debates as a vehicle for increasing democratic engagement and for redefining what it means to be involved in national political conversation.

Summary

Collectively, the research findings, number of submissions, and broadcast ratings indicate that the format of the CNN-YouTube Presidential Candidate Debates successfully engaged a large number of Americans in democratic discussion. The limited differences between the characteristics of the online video population and those selected for broadcast signifies that CNN and YouTube provided the public with broadcast events that allowed traditionally underrepresented voices to be heard. The inclusion of these voices into public political conversation will open new avenues for future democratic engagement.

Future Research
While the uniqueness of this debate format precluded the possibility of comparing demographic participation with that of similar debates to see if the findings for these debates were distinctive, this uniqueness also opens up many possibilities for future research. One possible future research option would be to compare the questions of the CNN-YouTube debates to that of the 2008 presidential debates to see if the question characteristics differ significantly between the online and more traditional debate formats. In addition, President Obama’s recent announcement to answer video questions constructed by the public may also provide an interesting opportunity for comparative research both in terms of demographic participation and question characteristics.

**Conclusion**

The newness and evolving nature of Internet technologies and the manner of technological distribution creates both significant opportunities and challenges. This complexity brings up questions such as: Do Internet technologies create more opportunities for democratic engagement? or Does the Internet reaffirm traditional political and demographic divisions in the electorate? Unfortunately, these are questions that must wait on technological evolutions before the answers can be fully fleshed out, and it is possible that these questions will never be completely answered due to the ever-changing Internet environment. While the direction in which the future of political technology will take us is uncertain, it is realistic to assume given that during the 2008 presidential election candidates’ videos on YouTube were watched between 3 and 27 million times each day (TechPresident, 2008), that 2% of individuals specifically named YouTube as the site they used for campaign news, and 41% of individuals under 30 years-old and 20% of those over 30 reported using YouTube to view campaign related videos (Kohut, 2008), YouTube will continue to play a critical role in the development and the future of online politics.

**References**


Appendix A
Codebook

A. Coder
B. Unit

Demographics

C. Age
0. Cannot Determine
1. <18
2. 18-25
3. 26-40
4. 41-55
5. +55

D. Sex [of primary speaker]
0. Cannot Determine
1. Male
2. Female
3. No speaker in the video

E. Race
0. Cannot Determine
1. American Indian / Alaskan
2. Asian / Pacific Islander
3. Black
4. Hispanic
5. White
6. Other [i.e. Middle Eastern]

F. Sexual Orientation
0. Cannot Determine
1. Heterosexual
2. Homosexual
3. Bisexual

Question Characteristics

G. Statement vs. Question
0. Cannot Determine
1. Question
2. Statement

H. Open vs. Closed Question
0. Cannot Determine
1. Open:
   i. Questions that allow the respondent to use their own words/ideas to respond to the question
   ii. “What do you look for on the Web?”
   iii. “How do you feel about global warming?”
2. Closed:
   iv. Questions that ask for a specific piece of information, specific ideas or requests specific words from the respondents
   v. “Are you in favor of policy X?”
   vi. “When will our troops be out of Iraq?”

I. Simple or Complex
0. Cannot Determine.
1. Simple:
i. Asks a direct question
   ii. “Do you believe we should withdraw troops from Iraq?”
   iii. “Are you in favor of X?”

2. Complex:
   i. Asking two questions at the same time
   ii. “What are your feelings on the war in Iraq AND what do you plan to do about it?”
   iii. “Are you in favor of X? Why or why not?”

J. What type of question it is?

0. None/Cannot Determine/Statement
1. Who?
   i. “Who do you think is best equipped to deal with the crisis in the Middle East?”
2. What?
   i. “What do you plan to do about rising gas prices?”
3. When?
   i. “When will there be a plan for exiting Iraq?”
4. Where?
   i. “Where do you plan to get the funding for future Social Security?”
5. Why?
   i. “Why has the Democratic party not made progress on X?”
   ii. NOT WHY OR WHY NOT.
6. How?
   i. “How will you address the health care issue in our country?”
   ii. “How will this be different and why?” [this is a how question because without the how there is no why]
7. Do?
   i. “Do you have a plan?”
   ii. “Are we better off?”
   iii. “Would you agree?”
8. Multiple Question types
   i. Is Iraq better off and how can we move forward [asking two distinctly different types of questions.]

9. Other

K. Is there a setup for the question? [the setup must come before the question is asked]

0. None
   i. Goes right into the question
1. Only Name and Hometown
   i. “I’m Bob from Arkansas”
2. Narrative /Autobiographical
   i. “Living in New Orleans post Katrina is very difficult…”
   ii. “My daughter has been suffering…”
   iii. “History has shown…”
3. Situational /Informational
   i. “The health care crisis…”
   ii. “Crime is on the rise in America…”
   iii. Gives statistics regarding a certain problem
   iv. “There are millions of Americans without health insurance…”

L. Does the question request a counter-argument?
   i.e., Some people think X, Some people think not X, what do you think?
   i.e., “I think X, what do you think?”
1. Yes
2. No

M. What type of answer is the question asking for?
1. Neutral
   i. Does not take a stance on either side
   ii. “There is an issue in our country…”
2. Take a Stand
   iii. “I will lower taxes by doing X “
   iv. “Our president has suggested a constitutional amendment, where do you stand on this?”
3. Balanced
   v. “There are options on both sides, X and Y”
   vi. “What are our options for social security?”

N. Does the question provide specific alternatives?
   1. Yes
      i. Provides alternatives for the candidate to choose from
      ii. “Is the war in Iraq OR rising oil prices the bigger concern?”
      iii. “Why or why not?” [this added to a question asks for alternatives]
      iv. “Is or Is not…”
   2. No
      v. Provides no alternatives, leaves question open
      vi. “Are you in favor of policy X?”

O. Who is the question directed to?
   1. A specific candidate
      i. “This question is addressed to Hillary Clinton”
   2. Multiple candidates
      ii. “This question is for Senators Obama and Clinton”
   3. All candidates
      iii. “This question is open to all candidates”

P. Is the question relevant to politics?
   1. Relevant
      i. Question related to political issues
   2. Irrelevant
      ii. “Who is going to win the SEC championship?”

Q. What is the question topic?
   • Fill in Question Topic
Macaca Moments Reconsidered… YouTube Effects or Netroots Effects?

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Abstract

This paper explores “Macaca moments” – high profile candidate gaffes that are captured on YouTube and receive a cascade of citizen viewing, leading to substantial political impacts. Such moments are widely taken as indicative of the way that YouTube is changing politics. Through a detailed comparative case analysis of the original “Macaca moment” – George Allen’s controversial statement in the 2006 Virginia Senate election – and the most often-cited such incident in the 2008 election – Michele Bachmann’s verbal misstep on Hardball with Chris Matthews – the paper discusses the varying impacts of YouTube itself versus the “netroots” political community. Though there is great similarity between how the 2006 and 2008 moments involved YouTube, the substantial differences between how the netroots engaged with the larger campaigns led to widely divergent outcomes. The paper seeks to bring political organizations back in to the study of online collective action, and is one of the first academic works to treat the robust political community at DailyKos.com as a topic worthy of examination in its own right. ¹

¹ The paper relies on data from archived DailyKos blog posts, which were coded into an Excel database. The database will be placed into the JITP dataverse for future public reference and analysis.
“This fellow here, over here with the yellow shirt, Macaca, or whatever his name is... He’s following us around everywhere. And it’s just great. Hey, let’s all welcome Macaca to America, welcome to the real world of Virginia.” – Senator George Allen (R-VA), August 11, 2006

“What I would say is that the news media should do a penetrating expose and take a look. I wish they would. I wish the American media would take a great look at the views of the people in Congress and find out, are they pro-America or Anti-America? I think the American people would love to see an expose like that.” – Congresswoman Michele Bachmann (R, MN-06), October 17, 2008

This paper seeks to contextualize so-called “Macaca moments:” political gaffes that are heavily accessed through YouTube, leading to cascades of media and public attention with noticeable impacts on electoral campaigns. Made famous by Senator George Allen’s utterance of the obscure racial slur at a camera-wielding, Indian-American opposition campaign operative during a rally, the term has entered the American political lexicon as a synonym for YouTube’s effects on elections. Ryan Lizza of the New York Times perhaps put it best, “When politicians say inappropriate things, many voters will want to know. Now they can see it for themselves on the Web.”

Political scientist Vassia Gueorguieva suggests that YouTube “has increased the potential for candidate exposure at a low cost or no cost at all and the ability of campaigns to reach out to the public for campaign contributions and for recruiting volunteers. In addition, it has provided lesser known candidates with a viable outlet to divulge their message to voters.” Against these positive pronouncements of YouTube’s transformative effects, we must recall Matthew Hindman’s rejoinder that various sorts of web traffic approximate a heavily-skewed power law distribution, suggesting that although anyone can freely speak on the web, only an elite few are substantially heard. If a candidate gaffe or user-generated commercial is published on YouTube, and no one is there to view it, does it make any impact? Particularly given that the supposed “Macaca Moment” of 2008 – Michelle Bachmann’s neo-McCarthyite episode on Hardball with Chris Matthews – failed to produce an electoral result, have we been too quick to credit YouTube with panoptic implications?

I argue against the technology-centric framework commonly used to discuss YouTube, fundamentally suggesting that we gain greater theoretical traction by bringing the organizations back in. YouTube, like other internet communication technologies, dramatically lowers the transaction costs of content production, moving us (in Clay Shirky’s words) from a world of “filter, then publish” to a world of “publish, then filter.” This leads to a condition of information abundance, wherein the filtering, rather than the publishing, becomes the dominant challenge to

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mass collaboration or collective action. This act of filtering – of signaling to large, networked
components of the online population that a video, blog post, or issue is worthy of their attention
– is largely accomplished by a new set internet-mediated organizations. Political communities-
of-interest, mobilizing under the guise of MoveOn.org, Dailykos.com, and other hub spaces,
incorporate tools such as embedded YouTube video into their tactical repertoires, guiding and
harvesting the cascade of mass attention to further their strategic goals.

I argue that the political impact of YouTube videos is deeply rooted in the usage of such
videos by these “netroots” organizations – simply put, when YouTube videos are highlighted by
the major netroots groups, including elite political blogging communities like DailyKos, they
receive substantial viewership and, more importantly, are converted into campaign donations and
pressure campaign tactics. Without these donations and pressure tactics, it is unclear why large
national viewer numbers would be determinative in the outcome of a local election. Rather than
the common techno-centric “YouTube effects” explanation, which treats collective action as
though it happens spontaneously or in response to formal elites, this theory of “netroots effects”
argues that the dramatic lowering of video content-production costs only bears political fruit
when organized interests incorporate them into ongoing efforts. Thus the lasting impact of such
web 2.0 technologies as YouTube lies not in the dissolution of elite control, but in the creation of
more porous elite networks and the development of new, “peer-produced” tactical repertoires.

I present this argument through detailed cross-case comparison of the original “Macaca
moment,” (the 2006 Virginia Senate race) and its 2008 successor (the 2008 Minnesota District 6
House race). Using the large volume of content posted to DailyKos through user diaries to
reconstruct the full time-series of events in each case, I demonstrate that, although both instances
led to substantial public outrage and partisan giving, and both led to increased respect from
elected officials to the DailyKos “netroots” community, the central difference between them was
the 2006 moment occurred in the context of an ongoing high-priority netroots campaign, while
the 2008 moment was merely a brief, attention-drawing scandal. This method of analysis is also
meant to illuminate just how different DailyKos is from standard personal blogs, and to perform
an argument for increased scholarly attention to this major, understudied online political
association. The paper is meant to provide theoretical grounding for future research attempts at
studying the drivers of traffic and influence in YouTube, which will necessarily be more
quantitative in nature.

Background

There has been surprisingly little written about the political “netroots” thus far – in the
academic literature, virtually nothing in fact. Some research on political blogging has appeared
in political science journals – most notably a special issue of Public Choice and various issues of
Journal of Information Technology and Politics (JITP) – but this has largely considered bloggers
as a single, discrete set of “citizen journalists” and sought to discuss their habits, practices, and
effectiveness (see Pole 2005, McKenna and Pole 2004, Lenhart and Fox 2006, McKenna and
Pole 2008). While the blogosphere circa 2004 was arguably small enough to allow for such a
classification, the explosive growth of the technology has since rendered such population-level
studies problematic. Blog software is a relatively simple type of code, and as blogging has grown
in popularity, various institutions have adopted blogging into their suite of online
communications tools. While Duncan “Atrios” Black and Glenn “Instapundit” Reynolds – two
early bloggers from the Left and the Right, respectively—shared much in common with each other and could be reasonably classified according to their role as “bloggers,” it is unclear why we should expect NBC News Anchor Brian Williams or Sierra Club Executive Director Carl Pope to use their blogs in much the same way. Likewise, with the launch of the community-engaging Scoop software platform in 2003, blogs like DailyKos began to offer their readers the opportunity not only to comment on the posts by Markos Moulitsas (nicknamed “Kos” during his time in the Army), but also to author their own “diary” posts and have them hosted for free on the site itself. I argue in a 2008 *JITP* piece that these “Community Blogs” function as gathering spaces for identity-based communities-of-interest. The DailyKos community, for instance, endorses, fundraises, and volunteers for a slate of “netroots” political candidates, even holding an annual in-person convention of self-identifying “kossacks.” The group engages in political education efforts, chooses issue campaign priorities, and attempts to pressure political decision-makers. The difference between an elite community blog and a traditional interest group lies in the details of staffing, tax status, and tactical repertoires, while the similarities between such a hub community blog and the average pseudonymous individual blogger’s site are few enough to make sweeping generalizations about “bloggers” highly problematic.

Below, I reproduce two figures from a recent study to demonstrate just how expansive the DailyKos community has become. The data comes from an ongoing data-gathering project called the Blogosphere Authority Index, openly accessible to the research community online. Figure 1 illustrates the growth of content production in the DailyKos blogging community since it switched to the “Scoop” platform. This is the total number of blog posts, both in front page and diary format, per month, an important figure given Marlow’s (2005) finding that content generation, rather than pure preferential attachment, is the main driver of increases in site traffic over time. We see that content production increases during the months surrounding an election, and we see a continual increase in the overall size of the community. Figure 2 provides some context for just how enormous DailyKos has become, comparing the average number of comments per week posted to DailyKos, the next 24 largest progressive political blogs, and the top 25 conservative political blogs during and after the high-traffic 2008 election season. One year prior to the election season, in November 2007, DailyKos received nearly as many comments as the next 24-largest progressive blogs combined, and nearly 50% more comments than the entire elite conservative blogosphere (Karpf 2008a). During the 2008 election season, the lion’s share of increased public participation in the blogosphere went to DailyKos, with no analogous growth anywhere else in the political blogosphere (see Karpf 2009 for a full discussion of shifts in various measures of blog authority during the 2008 election season).

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6 I often use comments as a proxy for community activity, since neither hyperlinks nor site traffic effectively distinguish between posts that are actually being read versus posts that are merely skimmed or skipped over. It stands to reason that, prior to posting a comment, a reader must be actually engaging with the material and considering it long enough to form an opinion worth posting. It further stands to reason that these motivated commenters are more likely to engage in other forms of community activity, such as donating money or taking political action.

7 Data for both of these figures comes from the Blogosphere Authority Index dataset. See www.blogosphereauthorityindex.com or Karpf 2009 for further discussion.
These changes are particularly important given that the literature has, to date, sidestepped the DailyKos community. In his otherwise-excellent JITP piece, “Political Blogs: Transmission Belts, Soapboxes, Mobilizers, or Conversation Starters,” Kevin Wallsten notes the methodological challenges in studying a “hive blog” like DailyKos and, noting that, circa 2004, the site was not much larger than its contemporaries, excludes it from his study of the political uses of blog posts. Wallsten concludes his study – which introduces the content analysis framework that I rely upon in this project – by suggesting the importance of the site as an area of future research: “If the political significance of political blogs is to be accurately determined, therefore, future work should explore how the Daily Kos is used and whether its readers are taking political action.”

No member of the research community has followed up on this suggestion, though, and in the meantime works such as Matthew Hindman’s *The Myth of Digital Democracy* have treated the site as if it were a solo-author blog, ignoring the internal site mobility that allows the most popular active community members to eventually become paid full-time “Kos Fellows” with front page-posting privileges and a national daily audience in the hundreds of thousands. David Perlmutter’s 2008 book, *Blog Wars*, includes some discussion of community blogs and the “netroots” more generally, but his largely interview-based approach

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sheds limited light on the comparative size and strength of these sites. Perlmutter is primarily a journalism and communications scholar, and so his work treats the DailyKos community as “citizen journalists” rather than political mobilizers or partisan activists.10

**Figure 2: Comments/Week during the 2008 election season**
(including baseline data from Karpf 2008a)

For this reason, most of what has been written about the “netroots” consists of journalistic coverage in newspapers or magazines, or of books published by netroots leaders and the journalists who follow them (see Moulitsas and Armstrong 2006, Bai 2007, Feld and Wilcox 2008, Moulitsas 2008). These works unsurprisingly tend to display the sort of techno-optimism and broad, sweeping claims of effectiveness that make for popular writing. Deeply theorized accounts of how these “netroots” political interests are affecting politics, much less attempts at large-scale data gathering, have yet to emerge. Some excellent research has been conducted on the use of blogs and internet tools by formal political campaigns (see Bimber and Davis 2003,

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Latimer 2007, Foot and Schneider 2006, Bloom and Kerbel 2006, Pole 2008), but these studies have not been aimed at considering independent “netroots” blogging communities.

It is the aim of this paper then, through comparative case analysis, to begin building some theory of the distinctive effectiveness we should expect from these internet-mediated political associations. What, in essence, does all of the “netroots” activity amount to? It is an especially important moment to engage in such theory-building, because the same sort of technology-focused pieces that we originally saw regarding the blogosphere a few years ago are now being produced regarding YouTube and Twitter. A few scholars – most notably Bruce Bimber (2003) and Andrew Chadwick (2007) – have discussed the internet’s impact on interest groups and social movements, but their work has not made the direct connection with community blogs or other leading social technologies. If I am correct in the assertion that successful collective action is almost always organized, rather than spontaneous, then a deeper understanding of these novel quasi-interest group leaders is deeply needed.

Methodology

Following Bloom and Kerbel’s 2003 study, which traced blog involvement in publicizing Senator Trent Lott’s racially-charged statements at Senator Strom Thurmond’s birthday celebration, this study relies upon archived blog posts to construct an accurate time-series of events for qualitative content analysis. The value of online data such as blog posts to qualitative studies has been relatively underappreciated, overlooked in light of the more tantalizing implications that floods of internet data hold for quantitative studies. Rather than relying on the faulty memories and 20/20 hindsight of political actors in the aftermath of an event, however, archived blog posts allow us to investigate “who said what,” “when,” “to whom,” and “with what issue frames,” with remarkable accuracy. Furthermore, these findings are replicable in a manner that many qualitative studies are not. They are akin to ethnography or participant-observation in their rich detail, but the data is freely available for competing analysis.

I chose to engage in comparative case analysis of the George Allen-2006 and Michelle Bachmann-2008 candidate gaffes because of the substantial technological similarities between the two. Both were heavily-publicized verbal gaffes by Republican candidates who were aware that a camera was trained on them. Both received heavy and repeated play on YouTube, with Allen receiving over 380,000 views and Bachmann receiving over 189,000 views. Both resulted in election forecasters changing the status of the race from “Republican favored” to “leans Republican” or “tossup” – important since this signal of competitiveness can lead to increases in donor interest and strategic resource support from the Democratic and Republican Congressional and Senatorial Campaign Committees. Both were, in fact, referred to as “Macaca moments,” albeit the latter reference was an indication of its similarity to the former. The similarities also extend to how the formal campaign operatives attempted to use the event. Each campaign tried to capitalize on the gaffe in local, national, and online media spaces, deploying campaign operatives to post diaries at DailyKos and even having the candidate himself (Jim Webb in the Allen case, Elwyn Tinklenberg in the Bachmann case) post long “thank you” diaries on the site to great response. The major difference between the cases, then, included differences

11 [http://www.youtube.com/watch?v=9G7gq7GQ71c](http://www.youtube.com/watch?v=9G7gq7GQ71c) and [http://www.youtube.com/watch?v=eJlQm_7YAUI](http://www.youtube.com/watch?v=eJlQm_7YAUI). Both of these videos were posted multiple times on YouTube, and therefore it is unclear what the exact total of unique views would be.
in timing (Allen’s gaffe occurred in August, before the start of the traditional campaign season. Bachmann’s gaffe occurred with only two and a half weeks left in the campaign season), national profile (Allen’s seat could determine which party held the Senate majority in a non-presidential election year, Bachmann’s seat would have no such national implications, and occurred in the context of the Obama-McCain presidential contest), and netroots engagement. While we cannot rule out the importance of timing and national profile in this two-case comparison, a detailed look at how the netroots treated the two gaffes, how these “Macaca moments” differed, can provide a valuable framework for evaluating claims of the transformative impact of the technology itself.

A few caveats should be offered regarding the limits of comparative case analysis. I do not present this research as evidence of causality – such a research design is inappropriate for making firm causal claims. Rather, comparative case analysis is of greatest value in areas of research that are theory-poor. Detailed case analyses can be used to clarify hypotheses and develop theories for testing in later research, and comparative case analysis can be particularly useful for distinguishing variance that calls for future explanation. This research design tells us little about broader trends in YouTube usage by bloggers, or about the interplay between political blogs and the mainstream media. Both Rachel Maddow and Keith Olbermann heavily featured Bachmann’s comments on their MSNBC programs, for instance. What impact did these mainstream media segments have on the Bachmann affair, as distinct from the YouTube effects discussed here? Wallsten (2008) has offered a provocative thesis regarding the interplay of blogs and mainstream media in the spread of viral video, and I would urge readers to consider his early findings with regards to such questions. More generally, the choice of focusing on two cases comes at the price of ignoring the huge quantities of data available on web-based and YouTube-specific activity. At this juncture, I would suggest that cross-case comparison is of value specifically because it aids us in constructing testable hypotheses further down the road, but as a scholarly community, it is mostly useful in these early stages of research. Later projects ought to take advantage of the wide range of sophisticated tools that are now becoming available, as well as the theory-building that case analyses like this one provide.

Given the large volume of content on DailyKos, and its aforementioned status as a central hub among the elite progressive blogs, I chose to build upon Wallsten’s 2007 content-coding scheme for this study. Using DailyKos’s tagged searching feature, I coded all blog entries tagged with either “MN-06,” “Michelle Bachmann,” or “Elwyn Tinklenberg” that were posted in 2008 up through November 3rd 2008, the day before election day. I did the same for all entries tagged with “VA-Sen,” “Jim Webb,” and “George Allen” from December, 2005 through November 6, 2006, the day prior to election day. This yielded 211 Bachmann-related entries and 825 Allen-related entries. For each of these data points, I recorded the date posted, author, title, number of comments, and whether the post appeared on either the Front page of the site or the high-traffic “recommended list.” I then duplicated Wallsten’s content-coding scheme, with a series of bivariate entries for (1) Link or Quote Only, (2) Commentary, (3) Request for Feedback, and (4) Mobilize Political Action. Following Wallsten, I broke down (4) into a number of sub-categories,

12 For those interested in either duplicating the data collection or conducting similar content analysis projects, I discovered one important bug in the DailyKos search system. The tagged search feature itself underreports blog and diary entries, yielding only 71 Bachmann-related posts, for instance. Clicking directly on the tag of interest reveals the much larger universe of tagged entries, in reverse-chronological order.
including (4-1) voting, (4-2) protest, march, or rally, (4-3) contribute money, (4-4) send an e-mail, (4-5) online poll, (4-6) online petition, (4-7) volunteer, and (4-8) phone call. I found that the DailyKos community often added internal polls to their own blog posts as a mechanism for requesting feedback, and given that I found zero cases of DailyKos bloggers asking their readers to take action by voting on non-DailyKos online polls, I reclassified (4-5) as (3-5) to indicate that, on this site, online polls are used to solicit feedback. I then added a fifth category to the content analysis, (5) YouTube link. This was divided into four subcategories, (5-1) user-generated content, (5-2) media clip, (5-3) campaign commercial, and (5-4) video mashup. This category was added so that I could specifically examine netroots usage of different types of YouTube content.

I use the data to investigate three questions regarding the DailyKos community’s involvement in the two cases. First, over what time period and in what quantity did “kossacks” post about the cases. This question doubled as a qualitative time-series investigation, mimicking Bloom and Kerbel’s 2003 study. Reading blog entries in chronological order allowed me to identify the sequence of major events as they occurred, which led to some surprising findings about the Allen case in particular (detailed below). Second, what types of posts did kossacks commonly use, and how did this change between 2006 and 2008? Third, what was the breadth and depth of community involvement in the issues? For this third question, I isolated the subset of the population that appeared either as front page content or was voted onto the recommended list, and also counted the total number of unique diarists in each case and their frequency of posting. The findings for each case are presented individually below, with between-case comparison and analysis provided in the discussion section.

**Netroots Campaign Moments: “Macaca” and the Campaign for Jim Webb**

The original “Macaca moment” has become the stuff of legend in American political campaigning. University of Virginia senior S.R. Sidarth was tasked by the Webb campaign as a “tracker,” attending George Allen’s events and recording them with a handheld camera. On August 11th, 2006, after five days on Allen’s campaign trail, the aspiring Presidential candidate and elected Senator of Virginia acknowledged Sidarth’s presence to the crowd, referring to him as “Macaca” and “welcoming him to America and the real world of Virginia.” The clip was later posted to YouTube, where it received hundreds of thousands of visits. The cascade of negative attention essentially ended Allen’s Presidential aspirations (he had spent most of the summer visiting the early primary campaign states of Iowa and New Hampshire) and led to a running campaign issue that eventually let his opponent, Jim Webb, win a narrow victory in the race, 49.6% to 49.2%, or a difference of about 9,000 votes. David Perlmutter summarizes the lessons from this event as such: “Politicians learned, from the example of George Allen, that the ‘citizen journalist’ with a cause and camera should not be ignored. Allen’s ‘macaca moment’ would have been a local story or even no story, but via YouTube it received upwards of 400,000 viewings in weeks.” 13 Online news magazine Salon.com would later name S.R. Sidarth their “Person of the

13 Perlmutter, pg 105.
The central question we need to ask is whether Perlmutter and others are correct in asserting that the obscure racial slur would have been “a local story or even no story” without the presence of YouTube. Here one detail of the episode is often left forgotten: Siddarth was not a “citizen journalist with a camera.” He was a campaign operative on assignment as a “tracker.” The video was property of the Webb campaign, and was not posted to YouTube until August 14th – three days after the event occurred, and also after the Washington Post had been successfully pitched to run a front-page story about the episode. Salad.com records that the campaign had initially been unsure how to use the video, and indeed their initial reaction was to focus on the “real Virginia” dimension of the comment, in an appeal to affluent Northern Virginia Democrats, rather than focusing on the potentially more explosive racial connotations. Webb had offered a similarly tame response to an April 26, 2006 feature story in The New Republic by Ryan Lizza which discussed Allen’s long history of racially-tinged associations, including keeping a noose in his old law office, voting against the Martin Luther King, Jr. Memorial holiday, and long collecting Confederate Flags and memorabilia. The political netroots, including the DailyKos community, a number of active Kossacks cross-posting from the Virginia State community blog, RaisingKaine.com, and other top progressive blogs such as Atrios’s “Eschaton” and Joshua Micah Marshall’s TalkingPointsMemo, seized on the racial dimension of the comment and, over the next two and a half months, consistently returned to that theme.

Why did the comment receive front-page treatment from the Washington Post prior to the large number of YouTube visits? The reason, quite likely, is the same as the reason why the journalist Lizza had devoted column inches to a George Allen profile in April, 2006: Allen was viewed as an early presidential front-runner, and in the months prior to the congressional election season, news and speculation on early presidential front-runners had national appeal. Further, the impact of Lizza’s article, generally ignored in popular retellings of the Macaca episode, meant that there was an ongoing narrative that the incident connected to. Though the term is not a commonly-used racial pejorative in America, the original Washington Post piece noted, “it’s not the first time Allen has confronted charges of insensitivity to race or ethnicity from minority leaders and longtime political opponents.” Kossacks had been blogging about making Allen’s racial views a campaign issue in April and May 2006, priming the pump for the YouTube moment.

Though the zero-cost publishing and direct access of YouTube led hundreds of thousands to view the video, arguably boosting the appeal of the story, extending the media cycle, and creating an identifiable turning point in the campaign, we have to keep in mind that the lion’s share of these viewers were likely not Virginians. Unless these viewers forwarded the video to a

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Virginian friend, donated money, or took some other political action, it is unclear how we would expect them to affect the Senate race. The YouTube video may have helped raise the comment from campaign-trail-gaffe to lasting campaign moment, but without Allen’s national standing, one has to wonder whether many people, Virginia voters in particular, would have cared. The initial reading from the national punditry was that the gaffe had likely ended Allen’s presidential ambitions, but his $7 million campaign war chest and incumbency advantage in traditionally-Republican Virginia left him well-positioned to hold his seat against the underfunded and little-known Webb campaign.

It is in the disposition of the Webb campaign itself that the “netroots effects” are most clearly visible. Beginning in late December, 2005, Lowell Feld of the Raising Kaine state blog, posting under the username “lowkell” on DailyKos, began advocating for a “Draft Jim Webb” effort online. The frontrunning Democratic candidate at that time was Harris Miller, a close associate of Virginia Governor Mark Warner. Miller was unpopular with labor leaders due to his years working as a lobbyist in favor of outsourcing information technology jobs. The “lobbyist” label was likely to be a particularly big problem in an election year featuring national outrage over lobbyist Jack Abramoff’s conviction for purchasing political influence on Capitol Hill. Feld felt that Webb, a former Republican who had served as Secretary of the Navy under Reagan but had switched to the Democratic Party and become an outspoken early critic of the Iraq War, would be a far stronger candidate. Webb, however, was reluctant to enter the race. The Draft Jim Webb effort raised the somewhat paltry sum of $40,000, but also identified 240 Virginia-based volunteers who were enthusiastic to work on Webb’s campaign and made it clear that there was grassroots support awaiting the first-time candidate. Webb agreed to enter the race in mid-February and eventually would defeat Miller, despite a 3-to-1 fundraising disadvantage, in the June Democratic primary without purchasing a single campaign commercial. Instead, the Webb campaign relied on earned media, with an outpouring of campaign volunteers, organized largely through Raising Kaine, and a series of high-value endorsements from interest groups and national elected officials.19

The DailyKos community would go on to name Webb as one of their top-tier “netroots candidates,” regularly blogging about the campaign and urging their national community-of-interest to donate and volunteer for the Webb campaign. All told, the DailyKos community would donate $193,248 to Webb through their ActBlue.com fundraising page, while Raising Kaine, the Webb campaign, and other online activist groups would raise an additional $700,000 for the candidate through the ActBlue fundraising system.20 DailyKos coverage of the campaign also continually focused attention on Allen’s racially-charged statements, including both the “Macaca moment” and later Allen campaign gaffes, including the revelation that Allen had once stuffed the head of a deer carcass into the mailbox of his black neighbors, that Allen had repeatedly used the “n-word” in his youth, despite public declarations that he never had, and Allen’s testy response during a campaign debate that a question about his mother being raised as a jew qualified as “casting aspersions.”21 The political netroots actively recruited Webb to run for the Senate, they consistently wrote about the race, they pursued the racial elements of the “Macaca” story during the early days when the Webb campaign was resisting “playing dirty” in

19 Moulitsas, pgs 52-60.
20 www.actblue.com/page/netrootscandidates
this way, and they were engaged in the campaign itself on multiple levels. Lowell Feld was hired by the Webb campaign as their “netroots coordinator,” various top campaign staff posted heavily-read entries on DailyKos, and Webb himself (or a campaign staffer empowered with writing in his voice) posted three diaries to the DailyKos site, including a June 16, 2006 thank-you post, “My Netroots Victory.”

Coverage of the Webb campaign on DailyKos was both broad and consistent throughout the 2006 campaign season. Figures three and four provide two measures of this coverage. Figure 3 depicts the total number of blog posts (including user diaries) posted about the campaign from December 2005 through November 6, 2006. What we see is that, after the August 14\textsuperscript{th} YouTube posting, there was a sharp increase in site discussion over the race, from 14 early August diaries to 164 late August diaries. This fluctuated through the rest of the campaign, but remained at a very fast pace. New polls and new Allen missteps produced a flurry of blog posts, while weeks

![Chart showing Allen Diaries]

Figure 3: Allen-related diaries, pooled into two-week periods

without a new poll or major misstep still saw a few dozen posts on the subject. Since anyone can post to the site, and the opportunity costs of content production are so low, this measure may not be the best example of popularity. The high-traffic “recommended list,” however, provides another measure, since space is limited to the five most-popular diaries on the site, as determined by registered user “recommend” voting. Table 4 provides the incidence of recommended diaries on the subject during the campaign season. Starting a few weeks before the Democratic primary, there was an average of 1 to 2 recommended diaries per week on the subject. In reaction to the “Macaca” clip, this soared upward, with 16 recommended diaries in the two week period, but this total was exceeded in late September and late October. As the campaign drew closer to a close, the DailyKos community became increasingly invested in it, voting it a higher and higher priority.

Table 1 provides the frequency distribution of the 825 blog posts by author. 33% of the Virginia Senate campaign-related posts came from a poster who only discussed the issue once. The top 3 most-frequent posters, meanwhile, produced 21.3% of the content on this topic. These top 3 posters were netroots coordinator Lowell Feld (84 posts), Markos Moulitsas (68 posts) and DailyKos regular “teacherKen” (24 posts), who lives in Northern Virginia and volunteered regularly for the campaign. Feld and TeacherKen were also regulars on the recommended list, with 24 and 9 recommended posts, respectively. Recommended and front page posts garnered an

![Allen Recommended Diaries](image)

Figure 4: Allen-related Recommended Diaries, pooled into two-week periods
average of 206.7 comments per entry, with a large standard deviation of 124 indicating substantial variance in these numbers. The full 825-post dataset had a mean of 62.3 comments per entry, however, with a standard deviation of 97.9. Incidence of the five major content categories, along with the particularly important “donate” subcategory, are detailed for full dataset and recommended/front page subset in Table 2.

**Table 1: Frequency Distribution of Allen-related posts by author**

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<th>frequency</th>
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<td>84</td>
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<td>.102</td>
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Table 2: Allen-related posts by activity-type

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<th></th>
<th>Full Allen Dataset</th>
<th>Recommended and FrontPage</th>
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</thead>
<tbody>
<tr>
<td>Comments (Standard Dev.)</td>
<td>62.3 (97.9)</td>
<td>206.7 (124)</td>
</tr>
<tr>
<td>Link and Quote Only</td>
<td>4.4%</td>
<td>5.4%</td>
</tr>
<tr>
<td>Commentary</td>
<td>94.7%</td>
<td>94%</td>
</tr>
<tr>
<td>Request for Feedback</td>
<td>15.2%</td>
<td>4.2%</td>
</tr>
<tr>
<td>Mobilize Political Action</td>
<td>25.4%</td>
<td>40.5%</td>
</tr>
<tr>
<td>Fundraising Request</td>
<td>11.9%</td>
<td>31%</td>
</tr>
<tr>
<td>YouTube Usage</td>
<td>6.9%</td>
<td>14.3%</td>
</tr>
</tbody>
</table>

Similar to Wallsten’s findings on the wider blogosphere, we find that commentary is the most frequent use of blog posts. Recommended and front page diaries are 15.1% more likely to mobilize political participation than the population as a whole, and 19.1% more likely to include a donation link. This appears to indicate a strong preference in the DailyKos community for “action diaries,” though of course such a conclusion needs to be tested against the full population of DailyKos diaries, rather than the case-specific time series I am investigating here. YouTube usage rose from 6.9% to 14.3% between the full population and the subset, but both of these indicate the generally low incidence of embedded YouTube videos or YouTube hyperlinks in this, supposedly video-led, case.

The picture that emerges from the aggregated time-series of “Allen,” “Webb,” and “VA-Sen”-tagged diaries on DailyKos is of a topic that attracted early interest and involvement, spiked in interest during the “Macaca” scandal, then continued to receive high and continuous engagement as election day approached. The netroots publicly claim Webb’s victory as an example of their growing influence and efficacy within the Democratic party coalition, and an examination of their archives supports this claim: kossacks helped to “draft” the candidate, they volunteered for and were hired to work on his campaign, and they routinely highlighted the campaign within their online community-of-interest long before it was clear that Webb would emerge as the winner. The other element that emerges from this time-series is the limited scope of the “Macaca moment” itself. Prior to that moment, Webb was polling roughly 10 points behind Allen in the Senate race. Afterward, the gap closed to roughly 5 points, and it wasn’t until late October that Allen took a lead in the majority of polls. The 2006 Virginia Senate race was a close affair throughout, and though S.R. Siddarth’s camera work proved an early turning point, there were several other candidate gaffes along the way which reinforced the narrative, and without those gaffes, a strong Democratic challenger, and sizable field and fundraising campaign components, it is likely that Webb’s tiny margin of victory would have instead been yet another example of “internet hype” that produces no change in Congressional leadership.
MN-06: Michelle Bachmann Gives a Gift to Her Opponent

If the Allen case was initially newsworthy because of his large national profile, Michelle Bachmann’s gaffe was the exact opposite. Bachmann, the Republican House member from Minnesota’s Sixth District, was facing an easy reelection campaign against the poorly-funded and mostly-unknown Elwyn Tinklenberg. In mid-October 2008, with less than three weeks left before election day, Tinklenberg had raised roughly $1 million in the previous nine months and had yet to take out a single television commercial. Though he was listed among the Democratic Congressional Campaign Committee’s (DCCC’s) second-tier target list, and though increased DCCC fundraising had led them on October 16th to add this and several other races to their list of funding priorities, the campaign had a virtually nonexistent national profile and was viewed as a “likely Republican” seat retention. Given that the Democratic Party held a large majority in the House, was pursuing a 60-seat, filibuster-proof majority in the Senate, and was primarily focused on electing Barack Obama to the Presidency, the Bachmann race received little attention from either the national media or the political netroots. Bachmann spent much of the fall appearing as a Republican surrogate on the 24-hour news channels, her reelection seemingly assured.

That all changed on the evening of Friday, October 17th. Appearing as a McCain presidential campaign surrogate on Hardball with Chris Matthews, Bachmann was asked to defend the latest Republican talking points, which were focused on Obama’s associations with controversial left-wing individuals like Reverend Jeremiah Wright and former Weathermen extremist William Ayers. With Obama leading in the polls, Republican campaign rhetoric had taken a highly negative tone, and it was Bachmann’s job to defend campaign-trail comments and try to keep the conversation focused on Barack Obama’s associations. After seven minutes of grilling from the veteran political reporter, Bachmann found herself backed into a verbal corner and, in response to question about “who else in the Congress holds ‘anti-American views’,” suggested that “the news media should do a penetrating expose and take a look … into whether people in Congress are pro-America or anti-America.”23 The specter of Eugene McCarthy and the House Un-American Activities Commission was too obvious to miss, and Bachmann’s comments dominated the weekend news cycle as an example of a vicious campaign going too far. Two days later, when former Secretary of State Colin Powell announced his endorsement of Barack Obama, he made specific mention of the “Congresswoman from Minnesota” when indicating that the Republican campaign had gotten far too negative.

Bachmann initially attempted to brush the comments off as being taken out of context, and later settled on the claim that she had “walked into a trap” on Hardball. Indeed, if one watches the entire 7-minute interview, it seems highly plausible that Bachmann’s comment was more an example of clumsy media skills than an explicit, intentional call for a return to McCarthyism. But Bachmann’s initial denial that she hadn’t made any such statement on Hardball was exactly the wrong tactic in the YouTube-infused campaign environment. As Markos Moulitsas put it, “in the old world, blatant lies … could be easily covered up. A reporter catches you saying something stupid? Who cares! Just lie and deny it. At that point it becomes a ‘he said, she said; question and people will shrug their shoulders unable to independently determine who is right. Enter YouTube … Bachmann can blatantly lie and it doesn’t matter because we have the video and can see for ourselves what was actually said. What’s more, the more Bachmann explicitly denies her comments, the more insulting it becomes for those who

23 http://www.youtube.com/watch?v=eJIQm_7YAUI

YouTube and the 2008 Election Cycle in the US
can see for themselves the truth of the matter. People may assume politicians lie, but they don’t appreciate having it rubbed in their face.”

Time and again, DailyKos members posted the clip, and with close to 200,000 views on YouTube, newspapers and bloggers alike were quick to dub this the “Macaca moment” of the 2008 election.

Once again we must wonder, however, what a high-traffic YouTube video is worth. Bachmann’s appearance on Hardball made her a target of left-wing ire and a ready example for pundits on the Sunday talk shows, but if that does not translate to money, volunteers or votes, what difference does it make? This was not the first controversial appearance Bachmann had made on national television, nor would it be the last. The constituents in her district had apparently displayed a tolerance with her antics.

What made this different, in essence, was the way YouTube was used by the political netroots. After months with barely a passing mention on DailyKos, Bachmann suddenly became the symbol of all that the community-of-interest disliked about the Republican Party. Popular longtime community member “thereisnospoon” quickly pulled together a diary that featured the YouTube clip, outlined the state of the race, including the latest polling that showed it was winnable, the DCCC’s recent decision to upgrade the campaign’s status, and background on the centrist Tinklenberg who, though not a classic fit for the interests of the progressive arm of the party, suddenly seemed an outstanding upgrade for the U.S. House of Representatives. He also included a fundraising link to Tinklenberg’s website and, after that website immediately crashed from the torrent of traffic, a new link to an ActBlue fundraising page devoted to electing Tinklenberg.25 Over the course of the next 48 hours, Tinklenberg would receive over $810,000 in online donations – nearly doubling the money raised in an entire year of fundraising. $130,000 of that came in from the Kossack-created ActBlue page alone. Recognizing the importance of the netroots community, Tinklenberg himself (who, at the time of Bachmann’s Hardball appearance, had been shaking hands at a local hockey game) authored a diary for the DailyKos site titled “Kossacks, Thank You and Michele Bachmann, $488,127.30 raised!”26

The DailyKos community would continue to discuss the Bachmann incident for the following week, in particular noting new poll data that showed a too-close-to-call race, and posting YouTube embeds of Tinklenberg’s campaign first campaign commercials that debuted the following Monday. But within a few days of the event, Kossacks lost interest in the race and turned their attention to the next latest scandal from the Republican presidential campaign. Commenters even began to caution each other that they had given “enough” to Tinklenberg, and should instead be donating to other worthwhile races through the sites “Hell to Pay” program, which highlighted a different race every few nights and encouraged the community to engage in a 24-hour donation binge. A week after Bachmann’s Hardball appearance, the only bloggers still posting about the race on DailyKos were MN-06 locals and Tinklenberg campaign operatives, and their posts were no longer making it to the high-traffic recommended list. The Bachmann

case was a classic example of what has been termed a “moneybomb” – a short-duration online fundraising explosion that infuses a large amount of cash into the otherwise-offline race. With only two and a half weeks left before Election Day, Tinklenberg put the influx of funds to the best use he could, but he had only achieved financial parity with the incumbent Bachmann, and with so little time, he eventually went on to lose the race 46% to 43%, with 11% going to a third-party candidate.

Figures 5 and 6 demonstrate the incidence of Bachmann, Tinklenberg, and the MN-06-tagged diaries on DailyKos, again in the form of total diaries and recommended or front page posts. What we see is that, though both “Macaca moments” were indeed self-inflicted campaign gaffes, captured on YouTube and covered by the blogosphere, the heavy and ongoing coverage we saw in the VA-Sen campaign was not present in this case. Perhaps more interesting than that lack of coverage pre-gaffe is the decline of coverage post-gaffe. It appears that the DailyKos community acted as an amplifier of sorts, reacting to the same latest intrigues that were covered by the mainstream media, but adding an infusion of vital campaign cash that otherwise would not have been present.

Figure 5: Bachmann-related posts by day (dates with no datapoint had zero posts)
Table 3 provides the frequency distribution of the 221 Bachmann-related blog posts by author. The short time horizon of the Bachmann episode is evident in the broader, flatter distribution, with 139 authors posting a single diary on the subject (65.9%) while three high-volume local authors, Bill Prendergast (21 posts), Ken Avidor (7 posts), and “Nada Lemming” (6 posts) provided 16.1% of the posts, including nearly all of the posts occurring pre-*Hardball* and more than one week post-*Hardball*. Table 4 offers a snapshot of how these posts were used. Not surprisingly, given the “moneybomb” nature of the event, there is a 42% gap between the full population and the Recommended or Front Page posts. “Action Diaries” were particularly appreciated. Likewise, the high incidence of YouTube usage on the recommended and front page list should not be overinterpreted, as this is associated with a single, very visible campaign moment.

The increase in fundraising requests between this case and the VA-Sen case is quite substantial, however, from 31% to 84.2% on the Recommended List and front page. This either indicates that kossacks were more interested in giving to Tinklenberg than Webb (highly unlikely), kossacks were more motivated to give in 2008 than 2006 (somewhat unlikely – people generally give more in Presidential years than congressional years, but it is unclear why that would translate to Senate and House races in an already-motivated community of givers), or kossacks have developed additional institutions to support political giving. This third explanation
seems the most plausible, as the “ActBlue thermometer” widget provided an easy giving tool in 2008 that had not been developed in 2006. Likewise, the usage of YouTube embeds may have risen because of advances in the software platform that made it easier for users to post such videos – there were a number of diary comments in 2006 that explicitly included a link to YouTube and a question to readers about how one embeds clips into a blog post.

Table 3: Frequency Distribution of Bachmann-related posts by author

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<th># of posts</th>
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<td>1</td>
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<td>21</td>
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Table 4: Allen-related posts by activity-type

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<th>Recommended and FrontPage</th>
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<td>Comments (Standard Dev.)</td>
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<td>Commentary</td>
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<td>Fundraising Request</td>
<td>37.4%</td>
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<tr>
<td>YouTube Usage</td>
<td>26.5%</td>
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The picture that emerges from the Bachmann episode shares several technological commonalities with the Allen episode – both featured elite-captured candidate gaffes that received heavy play on YouTube, which in turn led to additional media coverage of the gaffe – but otherwise indicates that the “Macaca moment” alone does not fundamentally reconfigure the course of an election. In essence, Bachmann *voluteered* herself as the target of netroots ire for a weekend by offering to appear on *Hardball* and then making her noteworthy verbal misstep. This led to tangible benefits to her opponent, in the form of both free media and an avalanche of financial support from the online community-of-interest, and those material resources helped him to become more competitive in the race. But this is a more reserved impact than the picture usually drawn when discussing “Macaca moments.” Netroots dollars may flow quicker and in much larger bundles than small-dollar contributions did in the pre-internet campaign world, but
an infusion of campaign cash has the same limited effects that it did previously. The ongoing involvement of the DailyKos community, which was evident prior to Allen’s gaffe, and continued to develop long after it, did not materialize simply because of a *Hardball* appearance. Bachmann was not a campaign priority for the netroots, and so they briefly paid attention to her, and then reverted to their main priorities. The online environment augments the traditional news media cycle with opportunities for web-based partisan engagement, but it does not uproot or necessarily democratize the news cycle.

**Discussion**

The central finding emerging from this cross-case comparison is that the political implications of these high-viewership “Macaca moments” on YouTube vary greatly depending on other contingent factors – many of which could be termed “netroots effects” rather than “YouTube effects.” Though the Allen and Bachmann incidents bear several facial and technological similarities, each was embedded in a very different campaign context, and that made a crucial difference. In both cases, we see evidence that Democratic political candidates are paying increasing attention to the “netroots,” DailyKos in particular, with both Tinklenberg and Webb hiring staff who were tasked with interacting with the netroots and with both of them posting diaries of their own at times. Given the large influx of funds the netroots can provide – far more than interest group-affiliated Political Action Committees are legally allowed to give – this is quite a sensible choice.

Beyond the formal, candidate-run political campaigns, both of which attempted to engage the netroots at the local and occasionally national level, the biggest difference between the two cases lies in the DailyKos community’s own priority-setting. Moulitsas and others decided in early 2006 that Jim Webb would make a strong opponent to George Allen, and they aggressively prioritized the Virginia Senate race, sensing correctly that it could prove the difference between a Republican and Democratic Senate majority. In a non-Presidential election, this made the Webb-Al len race a central focus for the kossacks, and this is demonstrated by the large amount of content, spread across nearly a full year. The Bachmann episode occurred as a sideshow of sorts, outside of the 2008 DailyKos priority races. As such, it received “moneybomb” attention for the duration of the media cycle, and then it faded from view.

One additional difference and one additional similarity stand out as worthy of further discussion. First, it is worth noting that, despite Allen’s status as a higher and longer-term priority, roughly 2.5 times as much money was raised for Tinklenberg online than for Allen, and in a much shorter timeframe. I would suggest that this is likely indicative of the growing influence of the political netroots as a whole. With more Americans turning to blogs for their news and political involvement than ever before (Rainie and Smith 2008), and with DailyKos registering over 2 million visits per day during the 2008 election season (versus roughly 600,000 two years previously), the kossacks are able to generate far more total funding in 2008 than in 2006 because they are an expanding portion of the interest group spectrum. This is also visible in the growth of total comments on the blog posts in these two cases, with the average recommended or front page diary receiving 206 comments in the Allen case and 497 comments in the Bachmann case. Assuming those users who take the time to participate through comments are likewise more likely to make a small donation, it stands to reason that the growth of the DailyKos hub yields a continuing increase in its potential donor base for supported candidates.
Likewise, the blog has continued to add new participatory institutions, both under the guise of programs like “Hell to Pay” and in the guise of permissive software code that makes ActBlue fundraising, YouTube embeds, and other engagement opportunities simpler, lowering the transaction costs of online involvement even further.

The additional similarity, which is of particular importance when considering the political impact of YouTube as a whole, is that both of these high-profile cases were elite-generated. The “citizen journalist with a cause and a camera” may be responsible for the bulk of YouTube’s total content, but those clips that get picked up and used by the political netroots are of a different sort. Both Allen and Bachmann made the standard type of political gaffe, well aware that they were, in fact, being filmed. Both would have endured a negative media cycle regardless, with Allen’s gaffe being reported by the Washington Post simultaneously with its release on YouTube, and Bachmann’s gaffe itself occurring on national television. The heavy viewership on YouTube added another story or two to each of these episodes, as political reporters reported on the novel/newsworthy technological aspects of each, but that is a short-term effect: the first time a political gaffe leads to $800,000 for an opponent in 48 hours, it is news, the fifth time, it is standard practice.

YouTube, like so many other “web 2.0” technologies, drastically lowers the costs of publishing content online. The resultant condition of information abundance presents a challenging search environment, in which mass collective action can only occur if all actors can end up in the same “place.” Anyone can start their own blog, or post their own YouTube content on the internet – and indeed, local blogs such as DumpBachmann.blogspot.com played this role for Tinklenberg supporters prior to the Hardball appearance. But elite netroots institutions like DailyKos have the same bandwidth limitations as traditional media and political organizations. They can only focus on so many topics or priorities at once, and though they may set these priorities using novel, bottom-up tools, the limited space on the DailyKos front page and in the high-traffic Recommended Diaries means that the DailyKos community cannot advocate for all political candidates or sample all YouTube content simultaneously. The content that receives wide viewership appears to primarily be culled from other elites. The internet has made elite political networks more porous, with quasi-interest groups like DailyKos gaining power and access that previously would have been available to smaller circles of people, but this reality is a far cry from some of the radical democratic hopes we see displayed in techno-optimist journalistic and scholarly accounts.

Conclusion

I have premised this study on the suggestion that the DailyKos community blog functions as a quasi-interest group, and that it is in their pursuit of netroots priority campaigns that we see the most important effects of the internet on American politics. Indeed, through a deeper look at the Webb campaign in particular, we see the political netroots had an ongoing, important effect on both bringing the candidate into the race, building early primary support for the candidate, focusing attention on the racial dimensions of the candidate gaffe, and continually focusing national attention and donor support on their Virginia priority Senate race. The Bachmann case, which was not a netroots priority, was very similar to Allen in terms of the “Macaca moment” itself receiving heavy viewership on YouTube. But without the longterm netroots priority status, the case resulted in only a brief “moneybomb” and then faded from view. If we are to understand
the political impact of new media technologies, we must look not only at formal political campaigns and mass audiences, but also bring the interest group-type organizations back into focus. It is in internet-mediated organizations like DailyKos and MoveOn that new tactical repertoires are being unveiled and radical new membership and fundraising regimes are being developed. These drastically change the makeup of those organizations that structure and mobilize collective action, but they only come into focus for political scientists when we discard the assumption that collective action occurs spontaneously.

I hope to have demonstrated in this study the value of, as conservative pundit Dean Barnett once put it, “Taking Kos Seriously.” The netroots, and the DailyKos community in particular, have gained substantial influence in the last two election cycles, and they represent not only a set of deep puzzles worthy of exploring, but also a treasure trove of open and accessible data. Though these are only two high-profile cases, we should remember that they were also closely watched by political elites themselves. The “proof of existence” that netroots mobilization has resulted in the election of candidates like Jim Webb and Jonathan Tester (D-MT, their other top 2006 priority candidate), and has resulted in the primary campaign victory of Ned Lamont over Joe Lieberman (even though Lieberman was then elected as a “Democratic Independent” in the general election) has very real influences on the political calculus and rational decision-making of congressional elites. They have made clear, on a level that other progressive interest groups have not, that those candidates who most stand with them or most stand against them will be rewarded and punished come election season. This creates a set of carrots and sticks, visible in actions like Webb and Tinklenberg posting multiple diaries on the site, and in the choice by all Democratic Presidential Contenders in the summer of 2007 to attend a debate at the YearlyKos convention. The lowered transaction costs of the internet have allowed for the formation of a robust online community-of-interest, and that community’s actions have received the attention of political elites. These new actors, “transitional elites,” if you will, are the instantiation of the internet’s impact on American politics, far more than the mass accessibility enabled by individual technological mediums. It is not just the technology, but the new actors that master it, that makes these “Macaca moments” worthy of study.

References


Supporting Research Data Collection from YouTube with *TubeKit*

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Abstract

We present *TubeKit*, a query-based YouTube crawling toolkit. This software is a collection of tools that allows one to build one's own crawler that can crawl YouTube based on a set of seed queries and collect up to 17 different attributes. *TubeKit* assists in the phases of this process starting with database creation to finally giving access to the collected data with browsing and searching interfaces. We further demonstrate how we used this toolkit to collect elections related data from YouTube for nearly two years. Some analysis of the collected data relating to the elections is also given.
Introduction

Ever since its inception in 2005, YouTube has emerged as a premium forum for hosting online videos. In this time, YouTube has become much more than posting, viewing, and sharing digital videos; it has become a platform where people express their opinions, participate in discussions, and voice their issues in many creative ways (Gomes, 2006).

While the YouTube platform caters to the video publishing and consuming needs of anyone, it has also become an essential tool for political parties and campaigns for getting their messages and propaganda out to its audience. The 2008 presidential election was unique in that it was the first election where a tool like YouTube was used very extensively, creatively, and methodically for the first time (Dalton, 2007; Jarvis, 2007; Seelye, 2007). Due to its large impact on political movements and public opinions, it became essential for anyone - political and social scientists, archivists, curators, information scientists, journalists, and librarians - interested in studying the elections to monitor and analyze YouTube activities around the elections.

Our interest in such analysis was initially motivated from the preservation point of view. As a part of VidArch project, funded by the Library of Congress, we wanted to collect and archive election-related videos from YouTube. Our interest was not only in harvesting the videos, but also collecting their attributes, such as title, tags, ratings, and comments, and do so over a period of time. During the spring of 2007, when we embarked upon this project, we did not find good tools to collect such data from YouTube. We, therefore, started building our own set of tools. The result was TubeKit - a toolkit that assisted us in creating customized crawlers that could harvest the videos and related attributes based on running a set of queries.

As we continued collecting this data from YouTube, we realized that the kind of rich information we were gathering could help us analyze the aspects of the data beyond those relating to preservation. This paper depicts our journey to creating the tools to harvest such data, the collection that we developed, the analysis that we performed, and the lessons that we learned in this process lasting nearly two years.

Development

As mentioned before, we were interested in not only collecting pages and videos from YouTube, but a set of specific attributes, such as title, description, tags, ratings, and comments. Using typical crawling tools such as `wget` or `Heritrix` on YouTube could extract links and other information. However, a major problem with such an approach was the constantly changing site and page structure of YouTube. Ever since Google acquired YouTube, we have seen many modifications in YouTube's interface. This makes extracting specific attributes hard. We were also not interested in broad crawling; rather, we wanted to crawl the data that related to the elections only. Due to these two major criteria, we decided to use a query-based focused crawling approach and use YouTube APIs as much as possible. Such focused crawlers are highly desired in narrow domains, vertical portals, and for mining the web-spaces for specific entities (Chakrabarti, Berg, & Dom, 1999).

The design of our crawler is shown in Figure 1 and was first presented in (Shah & Marchionini, 2007). Following is a brief description of its workflow.
1. The user provides a set of seed queries to monitor.
2. The system uses these queries to go out and search on YouTube.
3. A set of metadata is extracted from a subset of the results returned from YouTube. We define metadata to be the information about the given video which are provided by the author of that video, and are usually static in nature. For instance, the genre of the video.
4. The video downloader component checks the metadata table to see which videos have not been previously downloaded and collects those videos in ash format from YouTube.
5. The video converter component checks which videos are downloaded and not converted, and converts them into mpeg format.
6. The context capturing component goes out to YouTube and captures various contextual information about the video items for which the metadata is already collected. Each time such social context is captured, a time-stamp is recorded. We define social context as the data contributed by the visitors to a video page. This would include fields such as ratings and comments. Note that other types of social
context in blogs and other sources could also be harvested with different components (discussed later). The context capturing component runs periodically and updates time-sensitive data such as new comments or video postings, thus capturing temporal context.4

Thus, there are four major processes of our focused crawler: (1) metadata collection, (2) context collection, (3) video downloader, and (4) video converter. Each of these parts can be run independently and they all will check the overlapping functions with other parts to facilitate consistency and integrity of the whole system.

As we finished building our YouTube crawler for the elections, we also had the need to create such focused YouTube crawlers for other topics. Instead of building these crawlers individually, we created TubeKit - a toolkit that can let anyone build a crawler based on the scheme given in Figure 1.5 TubeKit is primarily built using PHP and MySQL. TubeKit has been tested on Linux and Mac and should work fine with any other UNIX-based system. Its web-based interface lets one configure and monitor a crawler with minimal efforts. TubeKit is available to the public for free at http://www.TubeKit.org under a Creative Commons Attribution-Noncommercial-Share Alike 3.0 United States License. The following section describes the usage of TubeKit.

Work Flow

In this section we will demonstrate how to create a query-based focused YouTube crawler using TubeKit. Following are the steps to build such a crawler.

1. Provide basic information (project name, directory to store the crawler, etc. Figure 2). TubeKit uses MagpieRSS6 for some of the parsing processes and youtube dl7 for downloading ash videos. One needs to provide the locations of these freely available tools during the basic configuration.

![Figure 2: TubeKit: setting basic preferences](image)

2. Set up the database (Figure 3). TubeKit uses MySQL database for storing all the collected data. Given enough information, TubeKit can create a new database and required tables for the crawler being created.
3. **Select different attributes to collect for a YouTube video** (Figure 4). There are 17 such possible attributes that TubeKit can collect from YouTube for a given video. One can not only select which attributes to crawl, but also if it should be crawled only the first time, or every time the crawler process is run. This is useful while monitoring the videos over a period of time as several of its attributes, such as the user who posted the video, will not change over time, and there is no need to record it every time. TubeKit comes with a default setting that has all the attributes marked appropriately for the common use.

4. **Set up various schedules for crawling** (Figure 5). TubeKit provides full flexibility for scheduling various processes. One can specify how often or when exactly the four processes of the crawler should run. Once again, TubeKit comes with default values for these parameters that schedules to run the processes during the night.
Crawling Setup

<table>
<thead>
<tr>
<th>Event</th>
<th>Month (1-12)</th>
<th>Day of month (1-31)</th>
<th>Day of week (0-6)</th>
<th>Hour (0-23)</th>
<th>Min (0-59)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Execute queries</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Crawl</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>1</td>
<td>0</td>
</tr>
<tr>
<td>Download videos in Flash format</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Convert videos to MPEG</td>
<td>*</td>
<td>*</td>
<td>*</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>

Figure 5: TubeKit: scheduling various events (default setting shown)

Add a seed query

Sarah Palin

Submit

Queries being monitored:

1. elections 2008
2. decision 2008
3. Barack Obama
4. John McCain

Figure 6: Monitoring and adding queries to your customized crawler

5. Access your crawler and enter seed queries (Figure 6). Finally, one needs to enter a set of queries that the crawler created with TubeKit can continue running as per the schedule chosen.

Once the queries are entered, the crawler is ready and should start harvesting the videos along with a variety of attributes based on the configuration of the crawler and other settings. TubeKit also generates a front-end of the crawler that can be accessed using a browser. This interface allows one to monitor the collection being built by the active crawler. The following section describes this interface with a crawler that we created for collecting election-related videos from YouTube.

TubeKit and the 2008 Elections

This section presents the details of our election crawler built using TubeKit, along with some analysis of the collected data. As mentioned before, we were interested in documenting presidential elections of 2008 from the perspective of an archivist concerned with preserving online digital media. Given its popularity, usage, and market penetration, YouTube was our natural choice for this. In addition, most of the proposed or possible candidates have their own channels on YouTube. CNN had also paired up with YouTube for hosting candidates’ debates and getting public responses to those videos (YouTube, 2008).

We built a crawler using TubeKit as described in the previous section and entered 56 queries. Of these queries, 6 were general queries such as `election 2008`, and the rest were the
names of possible candidates at that time (March 2007) obtained from Wikipedia (Wikipedia, 2007). For each of these queries, we decided to collect the top 100 results from YouTube every day. This means every day our crawler would send 56 queries to YouTube, get the top 100 results, and store the results that we do not already have. Thus, we get only new videos every day. However, we do collect the contextual information for all the videos that we have every time we run our crawler. As noted before, such contextual information includes time-sensitive attributes such as number of views, comments, and ratings.

Figure 7 shows some of the queries being monitored by our crawler along with the number of YouTube videos it has collected for each of these queries.

<table>
<thead>
<tr>
<th>#</th>
<th>Query</th>
<th>Setup</th>
<th>Total results so far</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>election 2008</td>
<td>Setup</td>
<td>1636</td>
</tr>
<tr>
<td>2</td>
<td>US election 2008</td>
<td>Setup</td>
<td>1044</td>
</tr>
<tr>
<td>3</td>
<td>United States election 2008</td>
<td>Setup</td>
<td>785</td>
</tr>
<tr>
<td>4</td>
<td>presidential election 2008</td>
<td>Setup</td>
<td>1018</td>
</tr>
<tr>
<td>5</td>
<td>campaign 2008</td>
<td>Setup</td>
<td>1101</td>
</tr>
<tr>
<td>6</td>
<td>decision 2008</td>
<td>Setup</td>
<td>722</td>
</tr>
<tr>
<td>7</td>
<td>Joe Biden</td>
<td>Setup</td>
<td>565</td>
</tr>
<tr>
<td>8</td>
<td>Hillary Rodham Clinton</td>
<td>Setup</td>
<td>544</td>
</tr>
<tr>
<td>9</td>
<td>Christopher Dodd</td>
<td>Setup</td>
<td>510</td>
</tr>
<tr>
<td>10</td>
<td>John Edwards</td>
<td>Setup</td>
<td>1246</td>
</tr>
</tbody>
</table>

Figure 7: Partial list of queries for the election crawler

Figure 8 displays a query-wise summary of additional attributes for the collected videos. In this display, we can see that as of December 27, 2008, we had finished more than 500 crawls and collected nearly 25000 unique videos. We can also see query-related statistics. For instance, as of that day, we had collected 534 videos related to Hillary Rodham Clinton, with average views of 27708, and average comments of 185 per video. The crawler updates these statistics after every crawl and prepares a front-end to present it.

An overview of our collection over 18 months is depicted in Figure 9. One might question - given that we are automatically collecting the videos based on running a set of queries, what is the guarantee that we are actually getting the videos on the given topic? There are several ways to validate the collected data. For instance, we can look at the genre of the videos and find out what the collection is mostly about. However, given that our collection is focused on election 2008, genre for the most videos is likely to be the same. What may be more interesting is looking at what these individual videos are about. One way of finding this aboutness is by analyzing the tags associated with these videos. Tags on YouTube are usually some keywords that are assigned by the author of the video while posting that video. For instance, for video titled `John Edwards Feeling Pretty', the tags are `John Edwards Hair Style". This tells us that the video is about John Edwards and also has something to do with hair styling.
Figure 8: Portion of collection summary (as of 12/27/2008). Columns with `Views', `Ratings', `Comments', and `Favorited' show the averages for 12/27/2008, and not for the entire collection up to that day.

<table>
<thead>
<tr>
<th>#</th>
<th>Query</th>
<th>Videos</th>
<th>Views</th>
<th>Ratings</th>
<th>Comments</th>
<th>Favorited</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>election 2008</td>
<td>1550</td>
<td>26405.1378</td>
<td>2.1612609948231</td>
<td>140.2874</td>
<td>64.1921</td>
</tr>
<tr>
<td>2</td>
<td>US election 2008</td>
<td>964</td>
<td>12381.0872</td>
<td>2.3948825543759</td>
<td>99.1309</td>
<td>45.6393</td>
</tr>
<tr>
<td>3</td>
<td>United States election</td>
<td>708</td>
<td>17985.0991</td>
<td>2.3004185047969</td>
<td>73.3018</td>
<td>30.8370</td>
</tr>
<tr>
<td>4</td>
<td>presidential election</td>
<td>942</td>
<td>6749.3778</td>
<td>2.1905333354738</td>
<td>41.2533</td>
<td>21.3333</td>
</tr>
<tr>
<td>5</td>
<td>campaign 2008</td>
<td>1093</td>
<td>8672.1379</td>
<td>2.1311877417838</td>
<td>33.0096</td>
<td>21.4502</td>
</tr>
<tr>
<td>6</td>
<td>decision 2008</td>
<td>705</td>
<td>7505.0127</td>
<td>2.4034394891399</td>
<td>36.2739</td>
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<tr>
<td>7</td>
<td>Joe Biden</td>
<td>562</td>
<td>8589.4360</td>
<td>2.7083430165468</td>
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<tr>
<td>8</td>
<td>Hillary Rodham Clinton</td>
<td>534</td>
<td>27708.9363</td>
<td>1.8098726208043</td>
<td>185.9554</td>
<td>43.1338</td>
</tr>
<tr>
<td>9</td>
<td>Christopher Dodd</td>
<td>506</td>
<td>3933.4276</td>
<td>2.4079385993251</td>
<td>19.0263</td>
<td>3.6075</td>
</tr>
<tr>
<td>10</td>
<td>John Edwards</td>
<td>1237</td>
<td>10385.8673</td>
<td>2.8525585399332</td>
<td>59.0650</td>
<td>22.7615</td>
</tr>
</tbody>
</table>

Figure 9: Overview of our election collection

A popular way of visualizing the tags is using a tag cloud (Halvey & Keane, 2007; Kaser & Lemire, 2007), which is extensively used in several of the Web 2.0 websites (Bielenberg & Zacher, 2006). We generate tag cloud after each crawl from all the unique videos collected so far. The size of a tag term on a tag cloud is proportionate to its frequency in the collection. A snapshot of our tag cloud on January 5, 2009 is given in Figure 10. In order to make it feasible for usable display, we ignored the tags that occurred fewer than 50 times in the collection. Thus, we can retain important tags such as `Edwards'' and remove less significant tags such as `hair'' for this collection.
Over time as new videos keep appearing in our collection, this tag cloud keeps changing and in a way, reflects what is gaining or losing popularity in terms of content production and posting. This not only helps us in visualizing the trends in our collection, but also provides a verification that indeed, the most of the videos in our collection are about the topics that we would expect.

TubeKit also prepares a front-end for browsing or searching in the collected videos. A snapshot of this interface is shown in Figure 11. Some basic information such as title, description, and genre of each of the videos is displayed here. The last column in the given table has letters ‘M’ and ‘C’, which link to the metadata and contextual information respectively. As noted before, we treat any static information about a video as metadata, and any dynamic or time-dependent information as the contextual information. Snapshots for such metadata and contextual information for a video are shown in Figure 12 and 13. The metadata information is self-explanatory. Let us look at Figure 13 for the contextual information. Here, our election crawler has presented crawl-wise statistics of a variety of dynamic parameters such as number of views, ratings, and comments. In addition to this, it indicates the significance of changes for a given parameter between two crawls. This is done by using different shades of yellow for highlighting the values. The scale on the top of the table presents the relation between the highlighting color and the % change in the value of a given parameter from the previous crawl.

In addition to reporting the differences between two crawls, TubeKit also provides a way for the user to indicate what constitutes a significant change for him/her. Figure 14 shows the interface for setting such preferences. As can be seen, the user can combine different dynamic
parameters using AND or OR operators and set their individual values that help decide if the present crawl is reporting a significant change from the previous crawl or not. Once such parameters are set for a query\textsuperscript{11}, the crawler provides a binary decision regarding whether a given crawl is significantly different from the previous crawl or not. This is indicated in the last column of crawl listing (Figure 13).

We found such functionalities provided by TubeKit extremely useful in our analysis. For instance, we found that on August 26, 2007, there was a significant change reported on the crawl for the video `Barack Obama: My Plans for 2008'. On that Sunday, Barack Obama visited New Orleans and gave a speech presenting a plan aimed at hastening the rebuilding of New Orleans and restructuring how the federal government would respond to future catastrophes in America. He also took a walking tour of a city neighborhood. This event created many discussions in the news media (Zeleny, 2007) as well as the blogosphere (The Richmond Democrat, 2007). Reflecting this significant Obama event his ag-video on YouTube reflected much more than usual participation. Such incident also indicates high correlation between real-life events and participation around the related YouTube videos. The generality of such correlation, however, needs to be invested further.
Figure 12: Metadata for the video `Barack Obama: My Plans for 2008'

<table>
<thead>
<tr>
<th>Crawl #</th>
<th>Crawl date</th>
<th>Rank</th>
<th>Views</th>
<th>Ratings</th>
<th>Avg Rating</th>
<th>Comments</th>
<th>Links</th>
<th>Favorited</th>
<th>Honors</th>
<th>Change</th>
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<tr>
<td>1</td>
<td>2007-05-03</td>
<td>1</td>
<td>211579</td>
<td>2267</td>
<td>4.59</td>
<td>3038</td>
<td>5</td>
<td>738</td>
<td>2</td>
<td>NO</td>
</tr>
<tr>
<td>2</td>
<td>2007-05-04</td>
<td>1</td>
<td>212582</td>
<td>2274</td>
<td>4.58</td>
<td>3009</td>
<td>5</td>
<td>741</td>
<td>2</td>
<td>NO</td>
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<td>3141</td>
<td>5</td>
<td>747</td>
<td>2</td>
<td>YES</td>
</tr>
<tr>
<td>6</td>
<td>2007-05-08</td>
<td>1</td>
<td>218189</td>
<td>2303</td>
<td>4.58</td>
<td>3156</td>
<td>5</td>
<td>749</td>
<td>2</td>
<td>YES</td>
</tr>
<tr>
<td>7</td>
<td>2007-05-09</td>
<td>1</td>
<td>219350</td>
<td>2309</td>
<td>4.58</td>
<td>3187</td>
<td>5</td>
<td>753</td>
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<td>NO</td>
</tr>
<tr>
<td>8</td>
<td>2007-05-10</td>
<td>1</td>
<td>220357</td>
<td>2314</td>
<td>4.58</td>
<td>3211</td>
<td>5</td>
<td>754</td>
<td>2</td>
<td>NO</td>
</tr>
<tr>
<td>9</td>
<td>2007-05-11</td>
<td>1</td>
<td>221381</td>
<td>2321</td>
<td>4.58</td>
<td>3227</td>
<td>5</td>
<td>760</td>
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<td>NO</td>
</tr>
<tr>
<td>10</td>
<td>2007-05-12</td>
<td>1</td>
<td>222328</td>
<td>2325</td>
<td>4.58</td>
<td>3248</td>
<td>5</td>
<td>760</td>
<td>2</td>
<td>NO</td>
</tr>
<tr>
<td>11</td>
<td>2007-05-13</td>
<td>1</td>
<td>223148</td>
<td>2331</td>
<td>4.58</td>
<td>3269</td>
<td>5</td>
<td>761</td>
<td>2</td>
<td>NO</td>
</tr>
<tr>
<td>12</td>
<td>2007-05-14</td>
<td>2</td>
<td>224382</td>
<td>2345</td>
<td>4.57</td>
<td>3300</td>
<td>5</td>
<td>762</td>
<td>2</td>
<td>YES</td>
</tr>
<tr>
<td>13</td>
<td>2007-05-15</td>
<td>2</td>
<td>226511</td>
<td>2366</td>
<td>4.56</td>
<td>3327</td>
<td>5</td>
<td>764</td>
<td>2</td>
<td>NO</td>
</tr>
<tr>
<td>14</td>
<td>2007-05-16</td>
<td>1</td>
<td>227767</td>
<td>2373</td>
<td>4.56</td>
<td>3343</td>
<td>5</td>
<td>766</td>
<td>2</td>
<td>YES</td>
</tr>
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<td>15</td>
<td>2007-05-17</td>
<td>1</td>
<td>228835</td>
<td>2384</td>
<td>4.56</td>
<td>3348</td>
<td>5</td>
<td>767</td>
<td>2</td>
<td>NO</td>
</tr>
<tr>
<td>16</td>
<td>2007-05-18</td>
<td>1</td>
<td>229611</td>
<td>2394</td>
<td>4.56</td>
<td>3348</td>
<td>5</td>
<td>768</td>
<td>2</td>
<td>NO</td>
</tr>
</tbody>
</table>

Figure 13: Crawl-wise contextual information for the video `Barack Obama: My Plans for 2008'
Detecting such events can help us in spawning off other processes. For instance, one can think of having an automated system that can go out and explore various information outlets such as the New York Times and CNN.com when a change of certain magnitude for a query (candidate) or a video occurs.

Let us now look at the videos specifically contributed by Barack Obama and John McCain campaigns. To identify these videos, we looked at the videos posted by `BarackObamadotcom' and `JohnMcCaindotcom' users respectively. Using this approach, we found that as of October 20, 2008, Barack Obama's campaign had posted 577 videos, which was the highest number of videos posted (2.6% of 22,104) by any individual or organization in our collection. On the other hand, John McCain's campaign had posted only 94 videos (0.4%), ranking 21 among the authors in our collection. It is not surprising that Obama's videos had a view count of more than 34 million, whereas McCain's videos had a view count of less than 2 million. This gives Obama's videos nearly 18 times more views than that of McCain's. Other statistics about the YouTube videos of these two candidates can be seen in the table below.

![Figure 14: Setting monitoring options for a query](image.png)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Obama</th>
<th>McCain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Videos posted</td>
<td>577</td>
<td>94</td>
</tr>
<tr>
<td>Number of views</td>
<td>34,387,028</td>
<td>1,919,855</td>
</tr>
<tr>
<td>Number of comments</td>
<td>69,188</td>
<td>23,711</td>
</tr>
<tr>
<td>Number of ratings</td>
<td>219,876</td>
<td>15,622</td>
</tr>
<tr>
<td>Number of times favorited</td>
<td>13,517</td>
<td>3,791</td>
</tr>
</tbody>
</table>

Since Obama had significantly more videos posted than McCain, it may be unfair to compare their views etc. directly. We, therefore, present the averages for both the candidates in
the Table 2. As we seen in that table, on average, an Obama video was viewed nearly three times as much as McCain's. Sure, McCain's videos have more comments per video than Obama's, but without analyzing them, it is hard to say anything about the opinionated nature of those comments.

Table 2: Averages for Obama and McCain on YouTube (based on our collection as of 10/20/2008)

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Obama</th>
<th>McCain</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg. views per video</td>
<td>59,596</td>
<td>20,424</td>
</tr>
<tr>
<td>Avg. comments per video</td>
<td>120</td>
<td>252</td>
</tr>
<tr>
<td>Avg. ratings per video</td>
<td>381</td>
<td>166</td>
</tr>
<tr>
<td>Avg. number of times a video favorited</td>
<td>23</td>
<td>40</td>
</tr>
</tbody>
</table>

**Additional Tools and Analysis**

In addition to the primary component of *TubeKit*, which incorporates a suit of tools to perform query-based YouTube crawling, we have developed a few small tools that let one collect various forms of information off YouTube without running queries. These tools are listed below.

- *Extract YouTube video URLs*
  A script that takes a set of YouTube URLs (or URLs to almost any webpage), and extracts the embedded URLs that point to YouTube videos. One can use this generated list to harvest various attributes about those videos using the `Harvest videos` or `Download YouTube videos` tools described below.

- *Download YouTube videos*
  This script lets one download the YouTube videos using `youtube dl` tool. One can write these URLs manually, or use the output of the `Extract YouTube videos URLs` tool.

- *Harvest videos*
  This script lets one collect a number of attributes of a YouTube video. All one need to do is put the URLs of those videos in a text file and pass the name of that file as an argument on the command line. One can write these URLs manually, or use the output of the `Extract YouTube videos URLs` tool.

- *Harvest profiles*
  This script reads username handles from a table in which the data is collected by `Harvest videos` tool, and collects a set of attributes from that user's profile.

- *Crawl inlinks*
  This script takes a URL of a YouTube video (or any URL) and finds the webpages that link to it or embed it. This tool uses the web crawl by Yahoo! to find such inlinks.

“Harvest videos,” “Harvest profiles,” and “Crawl inlinks” tools store the harvested data in a MySQL database, which can then be easily viewed or extracted.
In addition to the election crawler, we have created additional crawlers using TubeKit for collecting data from YouTube for our research on various topics. These crawlers are on topics such as energy, epidemics, health, natural disasters, and truth commissions. These crawlers have also been running for almost as long as our election crawler and have harvested about 30000 videos over a period of nearly two years.

The framework of TubeKit has been used to create ContextMiner, which allows one to run queries on different sources, including YouTube, without any installation on their side and with even less effort. The description of ContextMiner is beyond the scope of this article, but the reader is referred to http://www.contextminer.org for further details and exploration.

While YouTube provides many valuable attributes relating to a video, we may need to explore other sources such as blogs to complete the picture (Capra et al., 2008). For instance, look at one of the most popular (viral) videos on YouTube: `Vote Different'. To many people it is not clear where it came from - what the story is behind, who created it, and why. A screenshot of this item collected from YouTube by our system is shown in Figure 15. Some of the basic information about this video, including description, author name, and keywords, can be seen.

![Figure 15: Metadata for the video `Vote Different'](image)

Now if we look at the in-links collected to this YouTube video (Figure 16), we see that one of the articles linking to the above video talks about the author of this video. As we look at this article (Figure 17), we can see that it talks about who created this video, why, and what is the background for the video. We can also see the original `Think Different' video embedded in the article. Together, these objects provide us good enough contextual information to document the given digital object in a more meaningful way.
<table>
<thead>
<tr>
<th>#</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>L E X R E X: Rescuing the REPUBLIC - One Heart, and One Mind at a time</td>
</tr>
<tr>
<td>2</td>
<td>March 2007 - Posts - First Read - msnbc.com</td>
</tr>
<tr>
<td>3</td>
<td>Political video smackdown / 'Hillary 1984': Unauthorized Internet ad ...</td>
</tr>
<tr>
<td>4</td>
<td>Assistant/Atlas: Hollywood's Young Shoulders</td>
</tr>
<tr>
<td>5</td>
<td>The (liberal)!Girl Next Door</td>
</tr>
<tr>
<td>6</td>
<td>Yahoo's Presidential 'Mashup Debate' Won't Support Mashups</td>
</tr>
<tr>
<td>7</td>
<td>All animals are equal, but some animals are more equal than others...</td>
</tr>
<tr>
<td>8</td>
<td>Watching Big Sister - washingtonpost.com</td>
</tr>
<tr>
<td>9</td>
<td>techPresident - Who is &quot;ParkRidge47&quot;?</td>
</tr>
<tr>
<td>10</td>
<td>Who is the person behind the Clinton attack ad?</td>
</tr>
</tbody>
</table>

Figure 16: Inlinks to the video “Vote Different”

Figure 17: Article about the author ‘ParkRidge47’
Conclusion

In this paper we presented TubeKit, a toolkit that helps one create a customized focused crawler for YouTube. We demonstrated how we created a crawler for harvesting not only the videos relating to the election, but also several attributes over a period of many months. In this process that has lasted for nearly two years for us, we have learned several lessons, some of which are listed here.

- Looking at a YouTube video at a given time may not tell us the whole story behind it. It is important to observe it over a period of time to learn about its usage and impact.
- User participation is one of the defining factors of platforms such as YouTube. While studying the original information or objects (in this case, digital videos), we have to look at the user participation and the community built around it.
- Not all users are equal in their contribution on online mass media platforms such as YouTube. Shah & Marchionini (2008) showed how a small number of participants can make a huge impact on the overall information landscape due to their unique roles.
- There seem to be a high correlation between online participation on YouTube and real-life events. For instance, we found that within a few days of the announcement of Sarah Palin as the republican party candidate for the vice-president, the number of YouTube videos relating to her went up by a significant number. We also saw a spike in the participation around those videos as measured by the views and comments.
- The core part of TubeKit is based on collecting data from YouTube by running queries. Unfortunately, we do not fully understand how YouTube's relevance algorithm works, and thus, we are not sure what factors are considered while executing a query on YouTube. The functionality of TubeKit is also limited by the API and other support provided by YouTube's website.

We are committed to continually develop and support open-source TubeKit for the research community, distributed under a Creative Commons Attribution-Noncommercial-Share Alike 3.0 United States License. Now in its third major release of public beta, TubeKit has helped many research groups and organizations in not only collecting valuable data from YouTube, but also in making sense of it. In about a year's time, TubeKit has been downloaded for nearly 300 times and used by researchers all around the world - from Library of Congress to University of Paris - for a variety of projects. We believe this toolkit and the associated tools will keep helping us accelerate our research related to YouTube.

Notes

1. http://ils.unc.edu/vidarch/
4. Now on we will refer to social or temporal context as simply contextual information.
5. The original election crawler was created before TubeKit, but we introduced many enhancements to it after building TubeKit. Today, the crawlers created using TubeKit can expect similar interface and functionalities as shown here.


8. We intended to run one crawl per day, but there were days we had to skip the crawling due to system maintenance.


10. Note that at present, YouTube considers multi-term concepts as individual keywords; thus, a two term concept such as hair style is considered two separate terms by the retrieval system.

11. See Figure 7 where the queries are displayed. With each query, there is a link to `Setup', which brings up the interface shown in Figure 14.

12. Note that the display in Figure 13 was generated with different values than what is shown in Figure 14.

13. Note that we do not claim that we have all the videos related to these two candidates.


16. This may not be true for other topics, and the truthfulness of this statement for general cases needs to be invested further.

**Acknowledgment**

This work was not possible without constant guidance and support of the other members of the VidArch Project team - Gary Marchionini, Rob Capra, Paul Jones, Sarah Jordan, Cal Lee, Terrell Russell, Laura Sheble, Yaxiao Song, and Helen Tibbo. The work reported here is supported by NSF grant # IIS 0455970.

**References**


Congressional Candidates’ Use of YouTube in 2008: Its Frequency and Rationale

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Abstract

This study investigates the extent of candidates’ use of the video sharing YouTube site in 2008, and analyzes which Congressional candidates were more likely to use this tool. A large majority of the major party candidates for the Senate opened YouTube channels as did a much smaller proportion of those running for House seats in 2008. This is about double the percentages of House and Senate candidates who made use of profiles on the social network Facebook site when these emerged as campaign vehicles in 2006. For House candidates, campaign fundraising is the only strategic resource that differentiates both having a YouTube channel and the number of videos posted to it. In addition to better financed candidates, those in competitive elections also were more likely to open channels. Incumbents joined better financed candidates in posting more videos to their channels. Percentage minority is the only constituency attribute related to YouTube use, and is significant only for the level of activity. YouTube is best understood as a vehicle for disseminating campaign communications produced by or for traditional media, especially television, and not so much as a new technology tool.
Social networking sites emerged as campaign tools in 2006. The site most prominently used by the candidates that year was Facebook. Although YouTube made its debut February 15, 2005, its notoriety that election cycle derived not from its use by candidates, but because of user generated videos that compromised candidates and in a few cases drove them from the race. This study investigates the extent of candidates’ use of the video sharing YouTube site as a campaign tool in 2008, and analyzes which Congressional candidates were more likely to use it. We supplement this empirical analysis with interviews of staffers from almost 25 congressional campaigns.

The candidates’ use of YouTube in 2008 affords another opportunity to study the early adoption and dissemination of new technology tools in campaigns. These tools have the potential to change not only the conduct of campaigns, but the relationship between candidates and voters. YouTube speeds up the transmission of content and emphasizes visuals over the printed word. Like other mass media, it is accessible to large numbers of people, but is disseminated at their initiative and often through their connections to other social networks or via email sent by acquaintances. This viral property makes it an attractive, inexpensive means of conducting voter outreach, and given the popularity of online communication with younger voters, a means of targeting that demographic. Once in the public domain, video content can be altered through mashups and applied to new purposes or agendas. Content from video sharing sites has generated a continuous stream of blog posts and comments. This research seeks to establish a benchmark for understanding the extent of YouTube use as an election tool and how candidates view it within the larger context of their campaigns.

**YouTube in the 2008 Elections**

The first Webcast videos emerged in 2000. Notable among them was “Political Points,” an experiment by the *New York Times* and ABC News that aired daily during the election. The technology was cumbersome and these efforts died out. In 2004, Jib Jab’s “This Land Is Your Land” was one of hundreds of edgy videos circulated virally by e-mail during the campaign. A few gained large audiences by being replayed on television news, but most remained within the circles of the politically well connected. The launch of YouTube in February 2005 solved the limited distribution problem by providing a centrally organized Web site that allowed easy posting by means of a digital camcorder, laptop computer and inexpensive software (May, 2008).

In February 2007, YouTube created a section of the site called YouChoose that was devoted to showing videos from presidential candidates. Seven of 16 candidates for the

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1 The authors wish to thank Patrick Bozarjian, Ryan Burke, Brian DePerry, Nicholas Leventis, and Jonathan Peters for their thorough and persistent efforts in conducting the interviews with congressional candidates and campaign staff that were cited in this manuscript.
2 In 2006, Facebook created entries for all U.S. congressional and gubernatorial candidates, which they could personalize, and which were available for members who wished to view them, register votes supporting specific candidates, and notify friends.
3 YouTube promotes itself as the leader in online video, the premier destination to watch and share original videos worldwide via the Web by uploading or downloading video clips to and from web sites, mobile devices, blogs, and email. See <http://youtube.com/t/about>.
4 For a review of the use of YouTube in the 2006 election cycle, see Gueorguieva (2008).
presidency announced their candidacies in Web videos that circulated widely on YouTube (Heffernan, 2008). The emerging importance of the medium was apparent when YouTube partnered with CNN for two presidential debates. Selected users’ questions for the candidates were broadcast and answered on the television network, drawing the largest 18 to 34 year old audience in cable news programming history (May, 2008). According to Joe Trippi, YouTube users spent 14.5 million hours watching official Obama campaign videos (Wagner, November 10, 2008). Altogether, 35% of Americans watched online political videos in 2008, compared with 13% in 2004-- almost triple the proportion in the previous election (Smith and Rainie, 2008).

YouTube’s reach also extended to the Congressional elections. Democrat Robin Weirauch announced her candidacy in a video posted on the site (Boak, 2007). A debate between Senate hopefuls Udall and Schaffer was posted to YouTube (Riley, 2008). The candidates for the seat won by Niki Tsongas (D, MA, 5th district) posted commercials, debate segments and statements from supporters to YouTube (Viser, 2007). As in the presidential race, videos posted to YouTube both helped and hindered candidates. For example, a widely circulated video of John Hall singing a duet with Stephen Colbert on Comedy Central and another video clip of his opponent, 6 term incumbent Sue Kelly, running away from a television crew attempting to question her are credited with turning that long-shot race into an upset (Lombardi, 2007; Hernandez, 2006).

The deluge of online videos flooding the Internet in the 2008 election cycle continues the technological transformation in how candidates communicate and American voters receive information about campaigns. From a candidate perspective, YouTube has a number of advantages over traditional media and campaign websites:

- It is timely: the channel can be updated immediately
- It is easy: updating is simply a matter of uploading a video
- It is cost effective: campaigns do not have to purchase as much bandwidth for their websites if they just post a video tab directly linking to YouTube from their website
- It reaches a large and growing audience.

Our own interviews with candidates, staffers, and consultants from nearly 25 congressional campaigns during fall 2008 reveal a variety of reasons for using YouTube, and a fair amount of skepticism about its value. One from Ohio noted that “it’s just like a yard sign, just more clutter, but because others are using it, we have to use it too.” Another from Illinois observed that his constituents are not well versed in YouTube technology, so a ground game is a more effective means of targeting voters. A Minnesota campaign staffer echoed this assessment: “When you are a new candidate and not an incumbent, the YouTube Channel is not effective because you need to go out and meet the voters. You cannot hope they will subscribe to your Channel and emails. It is more important to engage with the voters through one-to-one

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5 As of December 2008, YouTube had nearly 70 million unique visitors. ([http://siteanalytics.compete.com/youtube.com/](http://siteanalytics.compete.com/youtube.com/)) with an audience demographic of 22% under age 18, 36% in the 18-34 age group, 23% in the 35-49 age bracket, and 19% 50 years or over ([http://www.quantcast.com/youtube.com](http://www.quantcast.com/youtube.com)).

6 Staff member, campaign for David Robinson (D-OH), Personal Interview, 30 October 2008.

7 Staff member, campaign for Martin Ozinga (R-IL), Personal interview, October 31, 2008.
contact, like literature drops.” On the other hand, another staffer felt that voters are better able to connect with a politician by seeing a video of them speaking so they are able to place a face to a name. A Minnesota candidate’s staffer pointed out that YouTube was one of the easiest ways to reach young voters.\(^8\)

### Explaining Candidates’ Use of YouTube

We hypothesize that the explanatory variables predicting which candidates posted campaign videos on YouTube in 2008 will mirror those that predicted web presence in the early days of Internet campaigning. Studies of this period identified two sets of factors that explained which candidates posted a campaign web site. The first set represents indicators tied to attributes of their constituencies, namely demographic attributes correlated with citizen access to and use of the Internet: education, income, ethnicity, age, and urbanization (Chadwick, 2006; Herrnson, 2004; Klotz, 2004; Mossberger et al., 2003).

Higher levels of education make people more comfortable with and skilled in the use of technology, while higher levels of income make computers easier to afford. Although whites use the Internet at higher rates than do blacks, racial differences have diminished over time (Kohut, et al., 2008) and seem to be a reflection of disparities in education and income (Marriott, 2006). Herrnson, et al. (2007) find that in 2000, white candidates had a significantly higher propensity to sponsor campaign web sites than minority candidates, and the percent minority interacts with the percentage of college educated constituents in 2000. The age gap in Internet usage persists, however, declining with each advancing age group. Urban areas have greater Internet use than rural areas, but the difference has declined substantially. These constituency demographics in turn influence candidates’ Internet use (Herrnson, et al., 2007).

The second set of explanatory factors includes attributes of the specific candidates and election contest: incumbency status, political party, competitiveness of the race, and amount of funding (Herrnson, et al., 2007; Klotz, 2004). In the early days, incumbents were less likely than challengers to campaign on the Web, but a competitive race increased its use by incumbents and challengers alike (Kamarck, 2002; Herrnson, et al., 2007). Similarly, candidates for open seats were more likely to have a web site than those in races where an incumbent was standing for reelection (Greer, et al., 2004). This is likely because open seats tend to be more competitive, particularly in House races.

When comparing the two major parties, the findings have been mixed. Data show that fewer Democrats posted campaign sites in 2000 (D’Alessio, 2000; Puopolo, 2001), reversing the finding from 1998 where Democratic candidates evidenced a higher incidence of web sites. Puopolo also credits the Republicans with being more Web savvy in their use of interactive and other features in 2000. Gulati and Williams (2007) found that reverses in 2004 when Democrats make greater use of interactive features than Republicans, although there are no significant differences between the parties on web site content or mobilization services. Except for online fundraising, Herrnson, et al. (2007) did not find statistical differences between Democratic and Republican candidates’ web sites when controlling for other variables.

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\(^8\) Steve Sarvi (D-MN), Personal Interview, 31 October 2008.

\(^9\) Staff member, campaign for Tim Walz (D-MN), Personal Interview, 30 October 2008.
Third party and financially disadvantaged candidates were less likely to have a campaign web site in the early days of Internet campaigning, although these have proved less of a barrier subsequently. Financial resources still differentiate which campaigns incorporate the latest technology and features, however. In summary, electoral attributes are less important today in differentiating which campaigns have a web site, but remain important determinants of the degree to which they provide more sophisticated content and use their web site to engage and mobilize supporters (Gulati and Williams, 2007).

The 2006 elections afforded an opportunity to study adoption of a new technological tool by political candidates, the social network site. As part of a 2006 election feature, Facebook created entries for all U.S. congressional and gubernatorial candidates. Candidates or their campaign staff then could personalize the profile with everything from photographs to qualifications for office. Facebook members could view these entries and register their support for specific candidates. Based on a study by Williams and Gulati (2007), 32% of the major party candidates running for U.S. Senate posted some form of content to their Facebook profile, and of those running for the House, 13% updated their profiles.\(^{10}\) Democrats were more likely to update a profile and had more supporters as well. For House candidates, challengers, better-financed candidates, and candidates running in competitive races were the most likely to update their Facebook profile. Competitiveness of the race was the only variable to have a significant effect on whether or not a Senate candidate campaigned on Facebook. These data corroborate most of the research findings on early adoption of campaign web sites, and underscore the importance of our second set of explanatory factors, the strategic attributes of elections.

### Data and Methods

To identify the congressional candidates who created their own YouTube channel, we entered each major party Senate and House candidate’s name into YouTube’s internal search engine during the final week in October.\(^ {11}\) Although YouTube created a specific space for candidates in 2008, we used the search engine rather than simply browse the list of candidates appearing on Politicians since we noticed that many candidates had created a standard channel in the same way that any individual or group can. Our search revealed that 47 of the 66 (72%) major party Senate candidates and 231 of the 818 (28%) major party House candidates created their own channel in 2008. This wide gap in usage between Senate and House candidates continues a pattern in online campaigning that began with the introduction of campaign Web sites and continued with the introduction of each new online tool (Herrnson et al., 2007).

Although recent research on Facebook usage by congressional candidates found that Democratic candidates were more likely to embrace Facebook than Republican candidates (Williams and Gulati, 2007), we did not find the same partisan difference with respect to YouTube. As Table 1 shows, 73% of Republican candidates for the Senate in 2008 and 71% of Democratic candidates created their own YouTube channel. In the House races, Democratic

\(^{10}\) The authors provided us with data that they had revised after presentation of their original paper.

\(^{11}\) Candidates were identified initially by monitoring several political web sites (i.e., Politics1.com, The DC Political Report, Project Vote Smart, and C-SPAN) that maintained candidate lists. We later cross-referenced our list with the official list produced by the Clerk of the House and removed any candidates not included on their list.
candidates were slightly more likely than Republicans to have created their own channel, but the differences between the two parties were not statistically significant at the .05 level ($X^2=2.860; p=.091$). The Democrats’ greater success on Facebook and other social networking sites is partly a reflection of partisan differences in mobilization strategies that finds Democrats more eager than Republicans to use the Internet as a way to communicate with their supporters. Republican strategists and activists typically have worked within a top-down organizational structure and find the unruly nature of the Internet foreign and unpredictable. And as is common for the party in power, Republicans tended to rely on communication and mobilization strategies that they have pursued and successfully implemented in the past (Rasiej and Sifry, 2007; Stirland, 2007; Thompson, 2008). The posting of professionally produced television advertisements and the development of videos for online-only distribution, however, does not represent a major transformation in communication strategy for either party.

Table 1
Presence of a YouTube Channel in the 2008 Congressional Campaigns by Party

<table>
<thead>
<tr>
<th></th>
<th>Democrats</th>
<th>Republicans</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Candidates w/own channel (%)</td>
<td>70.6</td>
<td>72.7</td>
<td>71.6</td>
</tr>
<tr>
<td>N</td>
<td>33</td>
<td>33</td>
<td>66</td>
</tr>
<tr>
<td>House</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Candidates w/own channel (%)</td>
<td>30.8</td>
<td>25.5</td>
<td>28.2</td>
</tr>
<tr>
<td>N</td>
<td>422</td>
<td>396</td>
<td>818</td>
</tr>
</tbody>
</table>

Source: Data collected by the authors

Table 2
Presence of a YouTube Channel in the 2008 Congressional Campaigns by Incumbency Status

<table>
<thead>
<tr>
<th></th>
<th>Incumbents</th>
<th>Challengers</th>
<th>Open Seats</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td>Senate</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Candidates w/own channel (%)</td>
<td>70.6</td>
<td>72.7</td>
<td>71.6</td>
<td>71.6</td>
</tr>
<tr>
<td>N</td>
<td>33</td>
<td>33</td>
<td>66</td>
<td>66</td>
</tr>
<tr>
<td>House</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Candidates w/own channel (%)</td>
<td>30.8</td>
<td>25.5</td>
<td>28.2</td>
<td>28.2</td>
</tr>
<tr>
<td>N</td>
<td>422</td>
<td>396</td>
<td>818</td>
<td>818</td>
</tr>
</tbody>
</table>

Source: Data collected by the authors

Table 2 presents the results disaggregated by incumbency status. Challengers for the Senate (73%) were the most likely to open a YouTube channel, followed by open seat candidates (72%) and then incumbents (11%). In the House, incumbents (31%) were the most likely to open a channel, followed by open seat candidates (29%) and challengers (26%). However, the differences were not statistically significant either for Senate ($X^2=3.559; p=.169$) or for House candidates ($X^2=5.754; p=.056$) at the .05 level.
As we identified the candidates who had opened their own channels, we also noted the number of videos that they had uploaded onto their channels. This number provides a broader gauge for measuring activity on YouTube than the simple dichotomous classification. The Senate candidates with channels posted a combined total of 1,458 videos. The median number of videos uploaded was 20.5, and the average number per candidate was 31. Because many of Joe Biden’s videos were from the presidential campaign, we excluded his videos when calculating the mean. Challenger Jeff Merkley (R-OR) was the most active Senate candidate on YouTube, having posted 112 videos onto his channel. As can be seen in Table 3, seven of the top 10 most active users were Democrats and all seven were challengers. The three most active Republicans were all incumbents, however.

Table 3
The Top 25 in 2008: Number of Videos Posted on YouTube by Senate and House Candidates

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Candidate</th>
<th>State</th>
<th>Party</th>
<th># of Videos</th>
<th>Candidate</th>
<th>State</th>
<th>Party</th>
<th># of Videos</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Merkley</td>
<td>OR</td>
<td>D</td>
<td>112</td>
<td>Pelosi</td>
<td>CA</td>
<td>D</td>
<td>1445</td>
</tr>
<tr>
<td>2</td>
<td>Franken</td>
<td>MN</td>
<td>D</td>
<td>79</td>
<td>Kucinich</td>
<td>OH</td>
<td>D</td>
<td>212</td>
</tr>
<tr>
<td>3</td>
<td>Collins</td>
<td>ME</td>
<td>R</td>
<td>77</td>
<td>Cole</td>
<td>OK</td>
<td>R</td>
<td>140</td>
</tr>
<tr>
<td>4</td>
<td>McConnell</td>
<td>KY</td>
<td>R</td>
<td>69</td>
<td>Paul</td>
<td>TX</td>
<td>R</td>
<td>136</td>
</tr>
<tr>
<td>5</td>
<td>Udall</td>
<td>CO</td>
<td>D</td>
<td>66</td>
<td>Diaz-Balart</td>
<td>FL</td>
<td>R</td>
<td>128</td>
</tr>
<tr>
<td>6</td>
<td>Allen</td>
<td>ME</td>
<td>D</td>
<td>60</td>
<td>Blunt</td>
<td>MO</td>
<td>R</td>
<td>126</td>
</tr>
<tr>
<td>7</td>
<td>Lunsford</td>
<td>KY</td>
<td>D</td>
<td>57</td>
<td>Lee</td>
<td>CA</td>
<td>D</td>
<td>122</td>
</tr>
<tr>
<td>8</td>
<td>Noriega</td>
<td>TX</td>
<td>D</td>
<td>57</td>
<td>Markey</td>
<td>MA</td>
<td>D</td>
<td>114</td>
</tr>
<tr>
<td>9</td>
<td>Coleman</td>
<td>MN</td>
<td>R</td>
<td>54</td>
<td>Towns</td>
<td>NY</td>
<td>D</td>
<td>108</td>
</tr>
<tr>
<td>10</td>
<td>Shaheen</td>
<td>NH</td>
<td>D</td>
<td>52</td>
<td>Boehner</td>
<td>OH</td>
<td>R</td>
<td>92</td>
</tr>
<tr>
<td>11</td>
<td>Smith</td>
<td>OR</td>
<td>R</td>
<td>46</td>
<td>Cohen</td>
<td>TN</td>
<td>D</td>
<td>84</td>
</tr>
<tr>
<td>12</td>
<td>Udall</td>
<td>NM</td>
<td>D</td>
<td>45</td>
<td>McCotter</td>
<td>MI</td>
<td>R</td>
<td>71</td>
</tr>
<tr>
<td>13</td>
<td>Begich</td>
<td>AK</td>
<td>D</td>
<td>44</td>
<td>King</td>
<td>IA</td>
<td>R</td>
<td>55</td>
</tr>
<tr>
<td>14</td>
<td>Landrieu</td>
<td>LA</td>
<td>D</td>
<td>44</td>
<td>Garcia</td>
<td>FL</td>
<td>D</td>
<td>54</td>
</tr>
<tr>
<td>15</td>
<td>Cornyn</td>
<td>TX</td>
<td>R</td>
<td>43</td>
<td>Pingree</td>
<td>ME</td>
<td>D</td>
<td>53</td>
</tr>
<tr>
<td>16</td>
<td>Gilmore</td>
<td>VA</td>
<td>R</td>
<td>42</td>
<td>Frank</td>
<td>MA</td>
<td>D</td>
<td>53</td>
</tr>
<tr>
<td>17</td>
<td>Chambliss</td>
<td>GA</td>
<td>R</td>
<td>41</td>
<td>Perriello</td>
<td>VA</td>
<td>D</td>
<td>49</td>
</tr>
<tr>
<td>18</td>
<td>Inhofe</td>
<td>OK</td>
<td>R</td>
<td>41</td>
<td>Massa</td>
<td>NY</td>
<td>D</td>
<td>47</td>
</tr>
<tr>
<td>19</td>
<td>Warner</td>
<td>VA</td>
<td>D</td>
<td>37</td>
<td>Young</td>
<td>AK</td>
<td>R</td>
<td>46</td>
</tr>
<tr>
<td>20</td>
<td>Rice</td>
<td>OK</td>
<td>D</td>
<td>28</td>
<td>Doggett</td>
<td>TX</td>
<td>D</td>
<td>40</td>
</tr>
<tr>
<td>21</td>
<td>Johnson</td>
<td>SD</td>
<td>D</td>
<td>26</td>
<td>Reichert</td>
<td>WA</td>
<td>R</td>
<td>39</td>
</tr>
<tr>
<td>22</td>
<td>Kennedy</td>
<td>LA</td>
<td>R</td>
<td>23</td>
<td>Grayson</td>
<td>FL</td>
<td>D</td>
<td>35</td>
</tr>
<tr>
<td>23</td>
<td>Kerry</td>
<td>MA</td>
<td>D</td>
<td>22</td>
<td>Lien</td>
<td>SD</td>
<td>R</td>
<td>35</td>
</tr>
<tr>
<td>24</td>
<td>Rothfuss</td>
<td>WY</td>
<td>D</td>
<td>21</td>
<td>Israel</td>
<td>NY</td>
<td>D</td>
<td>34</td>
</tr>
<tr>
<td>25</td>
<td>Hagan</td>
<td>NC</td>
<td>D</td>
<td>20</td>
<td>DeGette</td>
<td>CO</td>
<td>D</td>
<td>32</td>
</tr>
</tbody>
</table>

Source: Data collected by the authors

The House candidates with channels posted a combined total of 5,453 videos, with a median of 8 and a mean of 22.3. The number of videos for presidential candidates Ron Paul and
Dennis Kucinich were excluded when calculating the mean for House candidates. The top 25 most active YouTube users among House candidates also are displayed in Table 3. Unlike the Senate, the entire top 10 consisted of incumbents and there was an even split between Democrats and Republicans. The House candidate with the most activity was Speaker Nancy Pelosi, who had 1,445 videos posted on her channel. Presidential candidates Dennis Kucinich (D-OH) and Ron Paul (R-TX) also were quite active on YouTube, but most of their videos did not pertain to their congressional campaigns.

Tables 4 and 5 present the data broken down by party and incumbency status. In sum, there seems to be no real pattern to the data and none of the differences are statistically significant at even the .10 level. Democrats and challengers seem to be the most active in the Senate, while incumbents seem to be the most active in the House.

Table 4
YouTube Activity in the 2008 Congressional Campaigns by Party

<table>
<thead>
<tr>
<th></th>
<th>Democrats</th>
<th>Republicans</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Senate</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median Number of Videos Uploaded</td>
<td>27</td>
<td>15</td>
<td>20.5</td>
</tr>
<tr>
<td>Mean Number of Videos Uploaded</td>
<td>36.6</td>
<td>25.0</td>
<td>30.7</td>
</tr>
<tr>
<td>N</td>
<td>24</td>
<td>24</td>
<td>48</td>
</tr>
<tr>
<td><strong>House</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median Number of Videos Uploaded</td>
<td>8</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>Mean Number of Videos Uploaded</td>
<td>26.7</td>
<td>16.6</td>
<td>22.3</td>
</tr>
<tr>
<td>N</td>
<td>129</td>
<td>100</td>
<td>229</td>
</tr>
</tbody>
</table>

Source: Data collected by the authors

Note: Averages do not include data for incumbents who all ran for president or vice president: Joe Biden, Dennis Kucinich, and Ron Paul.

Table 5
YouTube Activity in the 2008 Congressional Campaigns by Party

<table>
<thead>
<tr>
<th></th>
<th>Incumbents</th>
<th>Challengers</th>
<th>Open Seats</th>
<th>All</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Senate</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median Number of Videos Uploaded</td>
<td>19.0</td>
<td>23.0</td>
<td>15.0</td>
<td>20.5</td>
</tr>
<tr>
<td>Mean Number of Videos Uploaded</td>
<td>27.8</td>
<td>36.5</td>
<td>26.3</td>
<td>30.7</td>
</tr>
<tr>
<td>N</td>
<td>22</td>
<td>17</td>
<td>9</td>
<td>48</td>
</tr>
<tr>
<td><strong>House</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Median Number of Videos Uploaded</td>
<td>11.0</td>
<td>7.0</td>
<td>7.5</td>
<td>8.0</td>
</tr>
<tr>
<td>Mean Number of Videos Uploaded</td>
<td>31.7</td>
<td>10.7</td>
<td>12.4</td>
<td>22.3</td>
</tr>
<tr>
<td>N</td>
<td>127</td>
<td>84</td>
<td>20</td>
<td>231</td>
</tr>
</tbody>
</table>

Note: Averages do not include data for incumbents who all ran for president or vice president: Joe Biden, Dennis Kucinich, and Ron Paul.

To explain more fully the reasons why some candidates created their own channel while others did not, we estimated a logistic regression model of YouTube presence for all 818 major
party House candidates. The dependent variable—*YouTube Channel Presence*—was coded as a “1” if the candidate opened a channel and coded a “0” if the candidate did not. We excluded Senate candidates from the multivariate analysis because of their smaller population size.

Our independent variables in the model predicting which House candidates would open a channel included four electoral characteristics and four indicators of constituency-demand, all of which have been linked both theoretically and empirically to the presence of campaign web sites in previous studies (Herrnson et al. 2007; Gulati and Williams 2007; Williams and Gulati 2007). Dummy variables were constructed for Republicans, challengers and candidates to open seats, with Democrats and incumbents serving as the reference categories. Our indicator for the campaign’s financial resources is the total net receipts collected between January 1, 2007 and September 30, 2008. Our fourth electoral variable is the competitiveness of the race. A race was coded as competitive if it had been designated as a toss-up, leaning toward one party, or likely for one party by the *Cook Political Report* on November 3, 2008. The indicators that we used to account for constituency-demand were: (1) the percentage of residents over 24 with a college degree, (2) the percentage of residents classified as white, (3) the percentage residents under 65, and (4) the percentage of residents living in urban areas.

To explain the reasons why some candidates were more active in posting videos on their channel, we estimated a (zero-inflated) negative binomial regression model of the number of *YouTube videos posted* for 815 major party House candidates. We excluded former presidential candidates Kucinich and Paul from the analysis and also Speaker Pelosi, who was a clear outlier with respect to YouTube activity. The values on the dependent variable—*YouTube Activity*—range from 0 to 140. Our independent variables in the model for YouTube activity include the same four electoral characteristics and four indicators of constituency-demand that we used in the model for YouTube presence.

**Analysis and Findings**

The results of the multivariate logistic regression analysis of YouTube channel presence for House candidates are presented in Table 6. These data show that better-financed candidates and candidates running in competitive races were the most likely to open a YouTube channel. This would suggest that the candidates who are the most likely to embrace this relatively new form of video distribution are those who see this new communication medium as an additional tool for winning votes. When the race is more competitive, all candidates regardless of incumbency status have an incentive to exploit every available technological resource that might help them expand their electoral base and maximize turnout among their supporters. Even though

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12 Data on campaign contributions were obtained from the Federal Election Commission: <http://www.fec.gov/finance/disclosure/ftpsum.shtml>.
14 These data are from the 2000 Census and were obtained from the U.S Bureau of the Census.
15 We used the negative binomial regression model rather than the Poisson model because the latter assumes that the probability of an event occurring at any given time is independent of all previous events. In the case of video postings, the assumption of independence is violated because candidates who post one video may be more likely to post additional videos, and those posting additional videos may be more likely to post even more videos (King, 1989).
the cost of uploading videos to YouTube is extremely low, better-financed candidates are more likely to open a channel because campaigns with the most money also tend to have the most sophisticated and professional organizations (Shea and Burton, 2006). They are more likely to be early adopters who see the Internet as a fundamental component of an effective communication and mobilization strategy.

Table 6
Logistic Regression Analysis of YouTube Presence in the 2008 House Races

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Coef.</th>
<th>S.E.</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Party (Democrats=reference category)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Republicans</td>
<td>-0.219</td>
<td>0.169</td>
<td>0.193</td>
</tr>
<tr>
<td>Incumbency Status (Incumbents=reference category)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Challengers</td>
<td>0.030</td>
<td>0.209</td>
<td>0.886</td>
</tr>
<tr>
<td>Open seat candidates</td>
<td>-0.583</td>
<td>0.321</td>
<td>0.069</td>
</tr>
<tr>
<td>Contributions received (in 100,000s)</td>
<td>0.057</td>
<td>0.012</td>
<td>0.000</td>
</tr>
<tr>
<td>Competitive seat</td>
<td>0.784</td>
<td>0.209</td>
<td>0.000</td>
</tr>
<tr>
<td>Percent white</td>
<td>0.004</td>
<td>0.006</td>
<td>0.495</td>
</tr>
<tr>
<td>Percent w/college degrees</td>
<td>0.022</td>
<td>0.012</td>
<td>0.077</td>
</tr>
<tr>
<td>Percent under age 65</td>
<td>0.016</td>
<td>0.029</td>
<td>0.578</td>
</tr>
<tr>
<td>Percent rural</td>
<td>0.000</td>
<td>0.006</td>
<td>0.989</td>
</tr>
<tr>
<td>Intercept</td>
<td>-2.365</td>
<td>0.553</td>
<td>0.000</td>
</tr>
</tbody>
</table>

N = 815
Percent correctly predicted = 73.6
Pseudo R² = 0.165

The logistic regression results in presented in Table 6 are also interesting for revealing that certain variables identified in early studies as affecting online campaign strategy were not statistically significant with regards to YouTube presence. For example, we found no partisan difference on opening a YouTube channel. In 2006, Democrats concentrated on Facebook and other Internet tools related to mobilization to a much greater extent than Republicans. The current findings suggest that for both Democrats and Republicans, YouTube simply provides an additional medium for spreading communication already developed for television and archiving past advertisements. Thus, for Republicans, it does not represent a deviation from their primary methods of campaign communication.

Some of the non-significant results are also noteworthy. Although the difference does not achieve the .05 level of significance, the direction of the coefficient suggests that open seat candidates were the least likely to open a YouTube channel. This is the opposite of other studies.
where incumbents were the least likely to experiment with new tools since they tend to rely on the ones with which they used to win previous campaigns. Moreover, open seat elections tend to be competitive and attract the “best” candidates and, thus, have tended to feature campaigns with some of the most sophisticated campaign consultants on board (Herrnson, 2008; Jacobson, 2009). As was the case for Republicans, distributing videos already produced on YouTube is not a significant deviation from buying time to have their advertisements run on television. They are simply uploading previously produced content to an additional distribution channel.

Candidates in districts with a higher percentage of college graduates were more likely to have used YouTube, but the effect did not achieve statistical significance at the .05 level (p=.077). The effects of the other three demographic variables were not statistically significant at conventional levels of significance either. As a whole, this is essentially the same pattern that was observed in studies of campaign web sites (Gulati and Williams, 2007).

The limited impact of constituency demographics suggests that House candidates do not see YouTube as a vehicle for targeting their campaign strategies and tools to groups who are more likely to use the Internet or expect access online to information about campaigns and politics in general. The comments we received in interviews that we conducted with nearly 25 congressional campaigns about their online strategy in 2008 bear this out. A common theme in their comments was that YouTube was not a tool that was capable of mobilizing voters and that a sound ground game was a more effective means for targeting specific groups of voters.16 The demographics of YouTube viewers validate their assumptions. The YouTube audience is a relatively close match with the American electorate as a whole (BIGresearch, 2007), and much more so than the demographic profile of Facebook.

While the estimates from the multivariate model are useful in identifying the relative importance of the independent variables included in the model, the summary statistics reveal that there still is a great deal that is unknown about what increases the likelihood of House candidates to open a YouTube channel. The percentage of cases correctly predicted by the model (73.6%) is not much better than the percentage of correct predictions that would have made by simply guessing the modal value (72%). The somewhat random nature of YouTube channel presence is similar to what was observed in a recent study of which candidates were the most likely to campaign on Facebook in its initial availability as a campaign tool (Williams and Gulati, 2007) and the early studies of which candidates were the most likely to launch a campaign Web site. When campaign web sites were in the experimental phase and still considered a novelty, a personal interest in new technology by the candidate or a staff member tended to be the reason that the candidate campaigned online (Foot and Schneider, 2002).

The results of the negative binomial regression analysis of YouTube activity are presented in Table 7. The coefficients indicate that better-financed candidates, incumbents, and candidates running in districts with a high percentage of minority residents were the most likely to use YouTube. Campaign finance receipts, moreover, is the only independent variable that also was significant in the model of YouTube presence. When a campaign for Congress raises a large amount of money, it almost always is used to finance additional television advertisements (Shea and Burton, 2006). Thus, the more ads that a campaign produces, the more videos are available for posting on their YouTube channel.

16 Staff member, campaign for Martin Ozinga (R-IL), Personal Interview October 31, 2008.
Television ads are not the only videos that candidates can post on their channels. Also present on many channels are videos of speeches, campaign rallies and other events, and online-only video messages. This may explain why incumbents were more active on YouTube than their challengers or candidates for open seats. Incumbents frequently are asked to address members of a civic or professional organization, give keynote addresses, and introduce speakers at community events and awards ceremonies (Fenno, 1978). Moreover, as sitting members of Congress, their campaigns tend to start much earlier than challengers and open seat candidates and, thus, have more opportunities for producing content.

Table 7
Zero-Inflated Negative Binomial Regression Analysis of YouTube Presence in the 2008 House Races

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Coef.</th>
<th>S.E.</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Party (Democrats=reference category)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Republicans</td>
<td>-0.537</td>
<td>0.150</td>
<td>0.721</td>
</tr>
<tr>
<td>Incumbency Status (Incumbents=reference category)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Challengers</td>
<td>-0.650</td>
<td>0.161</td>
<td>0.000</td>
</tr>
<tr>
<td>Open seat candidates</td>
<td>-0.759</td>
<td>0.271</td>
<td>0.005</td>
</tr>
<tr>
<td>Contributions received (in 100,000s)</td>
<td>0.027</td>
<td>0.008</td>
<td>0.000</td>
</tr>
<tr>
<td>Competitive seat</td>
<td>0.129</td>
<td>0.150</td>
<td>0.390</td>
</tr>
<tr>
<td>Percent white</td>
<td>-0.012</td>
<td>0.004</td>
<td>0.009</td>
</tr>
<tr>
<td>Percent w/college degrees</td>
<td>0.012</td>
<td>0.011</td>
<td>0.265</td>
</tr>
<tr>
<td>Percent under age 65</td>
<td>0.007</td>
<td>0.022</td>
<td>0.770</td>
</tr>
<tr>
<td>Percent rural</td>
<td>0.008</td>
<td>0.005</td>
<td>0.124</td>
</tr>
<tr>
<td>Constant</td>
<td>0.811</td>
<td>0.089</td>
<td>0.000</td>
</tr>
</tbody>
</table>

N 812
Log likelihood -1313
LR $X^2$ 44.45

When candidates begin to campaign or the number of events candidates promote and hold do not appear to be related to campaign decisions about creating their own channel. From our interviews, we found that challengers were eager to consider using YouTube as “a great way to get [the candidate’s] name out there in the beginning,”¹⁷ But when it came to actively using it,

¹⁷ Julie Petrick, campaign manager for Gary Peters (D-MI), Personal Interview, 31 October 2008.
the feeling was that the incumbents were “too strong” to “waste time” on an unproven medium such as YouTube.\textsuperscript{18}

We found it surprising that candidates with constituencies who had a higher percentage of minorities were the most active YouTube users. Past studies of online campaigning have found that when the racial and ethnic composition of the district matters, the candidates from constituencies with few minorities are the most active online campaigners. Yet current data show that minorities have a higher regular usage of new media than whites, regardless of type. They are more likely to use iPods, text on cell phones, play videogames, use video/picture phones, instant messaging online and watch videos on cell phones (BIGresearch, 2007).

It is possible that because Web sites and social networking sites are used to target constituencies that are more comfortable with new technology, campaigns see YouTube as a way to reach constituencies that prefer more traditional means of learning about campaigns and to reach a wider audience.

While the competitiveness of the race had an effect on the decision to open a channel, it did not affect how many videos the campaign posted. As we discussed above, candidates in a tough race are more likely to explore every avenue possible in an attempt to gain voters and mobilize their core supporters. Investing considerable resources into actively using an experimental tool is a risky proposition, however. Our data and personal interviews suggest that while some candidates are willing to take that risk, many candidates from both competitive and non-competitive races would prefer to focus on more traditional forms of grassroots organizing that are more apt to generate votes. One staffer working for a candidate in a competitive race said they did not invest in YouTube because “it won’t help much getting votes.”\textsuperscript{19} Others echoed this view and noted their commitment to grassroots activities that have been shown to yield more positive results on Election Day. But many campaigns in non-competitive races had come to the same conclusion. Incumbents with little opposition saw no need to deviate from standard campaign communication practices. In addition, the lack of serious opposition means that fewer ads were produced and, thus, fewer ads were available to post on YouTube.\textsuperscript{20} For challengers who are on the short end of a non-competitive race, expanding into different media platforms does not seem to be a way to alter the dynamics of the race.\textsuperscript{21}

**Discussion**

Our data on YouTube are consistent with earlier research on the adoption of new technologies in some respects, but show interesting differences in others. We view YouTube not so much as a new technology tool but as a vehicle for disseminating campaign communications produced for or by traditional media, generally television. What's new is that YouTube makes this easy, fast and inexpensive, and can reach a large audience. We find YouTube to be more attractive to candidates than Facebook proved to be in 2006. This is likely the case because YouTube more closely mirrors the demographic profile of the general voting population. It is

\textsuperscript{18} Anthony Williams (R-IL), Personal Interview, 30 October 2008.
\textsuperscript{19} Stu Wulsin, staff member for Victoria Wulsin (D-OH), Personal Interview, 31 October 2008.
\textsuperscript{20} Staff member, campaign for Russ Carnahan (D-MO), Personal Interview, 30 October 2008.
\textsuperscript{21} Julie Petrick, campaign manager for Gary Peters (D-MI), Personal Interview, 31 October 2008.
also more attractive than campaign web sites were in their early days, again probably because more people are online and have broadband connections today, making Internet hosted sites like YouTube widely available to the general population.

Despite its skew toward the younger age demographic and our personal interviews with campaign personnel that campaigns view the medium as a means of outreach to the youth vote, the percentage under age 65 was not a significant predictor of either YouTube presence or activity. Indeed, among constituency attributes, only percentage minority had a positive relationship, and only with YouTube activity. Given that there is less differentiation between the YouTube viewing segment of the population and the electorate, these results suggest that YouTube is not a particularly useful targeting medium for particular kinds of congressional districts. This essentially replicates the findings from Williams and Gulati (2007), but diverges from some of the early research on campaign web site adopters.

Campaign fundraising is the only strategic resource that differentiates both YouTube presence and activity levels. Wealthier campaigns have the professional staffing and sophistication to incorporate new tools for voter communication and mobilization more readily. They also have the financial wherewithal to generate more video content. Incumbents are similarly advantaged: they tend to have greater resources, but are also able to leverage their position as newsmakers. Just as incumbents lagged in posting campaign web sites, incumbency did not affect candidates’ motivation to open a YouTube channel, only the amount of activity once they had one. A competitive race does, however, affect who decides to open a channel on YouTube. When a small number of votes can make a difference, candidates pursue every means of voter outreach, and as we have seen, YouTube has a number of advantages over traditional media in disseminating those messages during a campaign.

This initial study of YouTube use as a campaign tool suggests that the medium has not changed the underlying campaign dynamic: the best financed candidates utilize and have more of every resource, including online video sharing; competition serves to increase the variety of methods candidates employ to reach and persuade voters. While YouTube has expanded the potential reach and timeliness of campaign communications, it has not replaced traditional campaign tactics or tools, rather it augments them. Early adopters are not yet evenly or widely distributed at all levels of office. Most are still experimenting with the medium, and many, even those who have opened campaign channels, remain skeptical of its value. That skepticism may result more from uncertainty about how best to exploit YouTube than doubts that clever video clips can generate massive attention. In the future, the challenge for campaigns may center around monitoring and controlling viewers’ negative comments about the videos and reigning in individuals who produce and distribute their own videos in support of the candidate that are not consistent with the campaign’s central message.

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22 This needs to be confirmed by using a direct measure of the youthfulness of a constituency, such as the percentage under age 35, rather than its seniority, i.e., the percentage over age 65, as we have done in this analysis.

23 In our Facebook study, only percentage of college educated was a significant predictor of profile usage.
References


The Sidetracked 2008 YouTube Senate Campaign

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Abstract

This article provides a systematic portrait of the YouTube presence of U.S. Senate candidates during the 2008 election cycle. The evidence does not support the theory that democratized production, editing, and distribution of video content is markedly changing the formats and producers of political content. This is apparent from the predominance of 30-second ads among both the most popular videos and the broad range of campaign videos. Although other potential forms of accountability remain unrealized, YouTube is facilitating candidates being held accountable for their own advertising. The 2008 findings are compared to 2006 findings with the same methodology.
As she marched, Senator Susan Collins surely must have wondered what the Maine Democratic Party hoped to gain by filming her participation in a local parade. Yet there was a Democratic worker awkwardly moving with the parade to film her 15 months before the 2008 election. Ultimately, the Democrats did gain something from their tracking efforts: bad publicity. The editorial board (2008, p. A7) of the state’s largest daily newspaper blasted the “aggressive” tactic: “There’s nothing statesmanlike about having an opponent followed with a video camera.” It was an inauspicious start for YouTube-motivated strategies in the 2008 Senate campaign.

Indeed, some of the wind has been taken out of the sails of the signature YouTube-motivated strategy of opponent tracking. Of course, it is hard to deny the payoff of the strategy in 2006 when the balance of power in the U.S. Senate was arguably changed by the Virginia Senate race that turned after footage of favored Republican George Allen denigrating his opponent’s tracker as “macaca” appeared on YouTube. On a systematic level, however, there was little evidence that compelling opponent footage was being produced. Indeed, even later in the same cycle, the overkill of tracking was being recognized. In one 2006 YouTube campaign clip, Michigan Senate candidate Mike Bouchard speaks directly to the camera from his backyard. Occasionally the color and quality of the video changes with the shift marked by a notation that the footage was coming from his opponent’s tracker. The joke is that the tracker would trespass onto Bouchard’s property and invade the intimate setting. Given the determination of candidates to avoid an Allen-type misstep, it is not surprising that the 2008 Senate campaign did not produce any influential tracker footage despite a concerted effort to find it.

The potential for YouTube, however, to impact the campaign is much greater than serving as a destination for tracker footage. YouTube can host video content from many different producers in varied formats. There is a compelling theory that democratized production, editing, and distribution of video alters the landscape of political communication. Given that the vast majority of Americans felt that the country was on the wrong track and disapproved of major public officials (Cooper & Thee, 2008), the 2008 campaign provided an ideal landscape in which YouTube could motivate new formats of political communication and inspire participation from ordinary citizens dissatisfied with professional approaches to politics. The empirical question is whether YouTube did this.

In testing the theory with empirical evidence, this article strives to produce the first systematic and longitudinal portrait of YouTube content in U.S. Senate campaigns. Insight into YouTube and the 2008 election cycle in the U.S. is gained by examining the YouTube presence of a census of Senate candidates. The study highlights the formats and producers of both the most popular and broader range of YouTube videos. Confidence in the 2008 findings is raised by giving them context through a comparison with 2006 campaign findings under the same methodology.

Literature Review

Scholars examining political content on YouTube have emphasized the rise of user-generated content. In the words of Winograd and Hais (2008, p. 133), “user-generated content suddenly became [in 2006] a far more potent campaign weapon than the slick ads created by media consultants.” The rise of user-generated content and harnessing collective intelligence are part of O’Reilly’s (2005) broader concept of the participatory platform Web 2.0. While using the Web 2.0 concept to frame the field of Internet politics, the editors of the Routledge Handbook of
Internet Politics describe YouTube as the “main event in online video” and a “significant aspect of Web 2.0 politics” (Chadwick & Howard, 2009, p. 7). They illuminate the Web 2.0 principle of collective intelligence: “The core idea here is that a distributed network of creators and contributors, the majority of them amateurs, can, using simple tools, produce information goods that may outperform those produced by so-called authoritative, concentrated sources” (Chadwick & Howard, 2009, p. 5). Using the Web 2.0 framework in their article on YouTube Finnish campaigns in the Journal of Information Technology & Politics, Carlson and Strandberg (2008) acknowledge the lack of consensus about Web 2.0 but find it a useful way to capture the Web’s change to more user participation.

The Web 2.0 concept has prompted disagreement about whether this is a good or bad thing for political culture. Those who find it a good thing have pointed to the way in which accountability can be furthered through YouTube. A staff (2008) article in Phi Kappa Phi Forum highlights how YouTube videos can facilitate candidates being held accountable for their policy positions. The ability to post videos and enhance accountability can be extended beyond the traditional media on YouTube. Gueorguieva (2008, p. 295) explains, “[YouTube] devolves the media from the power to shape perception of candidates to anybody with a PC and an Internet connection.” For his part, Nicholas Lemann (2006, p. 49) is not impressed by these efforts: “[T]he content of most citizen journalism will be familiar to anybody who has ever read a church or community newsletter.”

The increased incentive that YouTube provides for tracking opponents is probably still the biggest flashpoint in the normative debate over the impact of YouTube on campaigns. Indeed, the news and political director at YouTube himself offers such a perspective. Steve Grove (2008, p. 30) refers to YouTube as “the new frontier in newsgathering” in which “virtually every appearance by every candidate is captured on video – by someone – and that means the issues being talked about are covered more robustly by more people who can steer the public discussion in new ways.” Prominent technology entrepreneur and author Andrew Keen (2007, p. 68) offers a vastly different perspective: “The YouTubification of politics is a threat to civic culture. It infantilizes the political process, silencing public discourse and leaving the future of the government up to thirty-second video clips shot by camcorder-wielding amateurs with political agendas.”

Recognizing the importance of online video, scholars have begun to examine YouTube campaign content. A notable systematic work in the United States by Williams and Gulati (2007) found that only 10% of Senate candidates established YouTube channels in 2006. Interestingly, some of the first systematic findings are from outside the United States. Examining YouTube content in the Finnish elections of 2007, Carlson and Strandberg (2008) found that content was mostly positive and unlikely to be a repurposed TV ad. Reflecting on the visibility of minor players in their study, Carlson and Strandberg (2008, p. 173) close with the following statement: “[T]he new technology makes it easier for citizens to produce and disseminate political information and thereby play a role in postmodern election campaigns.” In his convention paper “RooTube,” Rob Salmond (2008) finds that the YouTube content of minor parties was more lengthy, policy focused, and positive than the content from major parties in Australia’s 2007 federal election.

One undercurrent of the literature is the expectation of huge growth. Looking at the 2006 campaign, it was common to say that YouTube would be exponentially more important in the next cycle. Journalists Cillizza and Balz (2007), for example, project YouTube politics going

Research Question

A compelling theory emerges that technological change motivates production of political video content from new sources. Specifically, citizens are empowered by the democratization of video editing, production, and distribution. Amateur videographers may not be able to equal the professionals, but if they can come close enough their work will resonate more with viewers for having been produced by someone more like themselves. With the barriers to producing quality video content breaking down, citizens will want to communicate through video about the subject of politics which is important to their lives. Through sheer numbers and harnessing collective intelligence, the citizenry can affect how politics is communicated. In capturing this phenomena, Winograd and Hais (2008, p. 153) highlight the sheer volume of possible communication: “[E]ach voter can become his or her own campaign office and flood the nation’s political speech with unfiltered ideas from every corner of the country.” Ultimately, in the words of Vassia Gueorguieva (2008, p. 295), YouTube and online video sharing can “weaken the level of control that campaigns have over the candidate’s image and message since anybody, both supporters and opponents, can post a video and/or create a page on behalf of the candidates.”

A corollary to this theory is that technological change can promote different formats of political communication. Certainly, ordinary citizens may look at politics differently and undertake new communication formats. These citizens would, for example, have less of a stake in preserving the attack ad format. Beyond citizens, even the campaign participants themselves have an incentive to find new ways to communicate. Without prescribed formats of campaigning, candidates can pursue a rich variety of formats to communicate with voters. Established political participants will be affected by the opportunities and expectations of the online video-sharing environment. Writing in Wired, Clive Thompson (2009, p. 40) makes the case for new formats on YouTube: “We’re developing a new language of video - forms that let us say different things and maybe even think in different ways.”

One characteristic of formats that technological change may encourage is greater length. The 30-second format that dominates contemporary American politics is a product of the institutionalized media market. There is certainly no evidence that this length facilitates parsimonious explanation of politics. On the contrary, it is an insufficient length for explaining or offering solutions to the profound challenges facing the American polity. Removed from the institutionalized 30-second media environment, candidates, the media, and ordinary citizens can use the opportunity provided by technological change to engage in longer forms of communication. Although lengthier discussion is not sufficient, it is necessary for a debate that reflects the nature of the challenges facing America.

While a compelling theory, it is an empirical question whether this captures what is really happening on YouTube. If supported, we would expect to find a YouTube environment characterized by innovative formats of communication and substantial citizen participation. If not, and user-generated sites reflect a normalization ascribed to the earlier Web (Margolis & Resnick, 2000), we would expect to see a campaign dominated by candidates repurposing existing communication for use on YouTube. To test which of these outcomes best captures the
landscape of YouTube politics, this study will answer several empirical questions about YouTube communication. They are: 1) What is the balance between user-generated and candidate content? 2) What formats are being emphasized in the YouTube campaign? 3) Are communicators taking advantage of the potential for longer messages? 4) What is the balance between positive and negative content? The answer to these questions will provide a systematic portrait of YouTube politics.

Methodology

In order to provide a systematic portrait of campaign content on YouTube, this study uses a unique research design. It strives to be the first YouTube campaign research that is empirical, systematic, and longitudinal. The research design recognizes that historical context can improve understanding of YouTube and the 2008 election cycle. Thus, the same content analysis methodology is applied to the YouTube campaigns of both 2006 and 2008. Since, however, this article’s principal purpose is to illuminate the 2008 YouTube campaign and capture contemporary use of the venue, the most comprehensive results and tables are dedicated to the 2008 campaign with the 2006 results incorporated where they can best provide context for the 2008 results.

In each campaign, the YouTube presence of all major-party Senate candidates was assessed. Ten days prior to the election (24 hour period centered on October 28, 2006, and October 25, 2008), a keyword search was done for the candidate’s name in YouTube. For each of the Senate candidates, the ten most popular (highest page rank) videos related to the candidate were identified. Fortunately, the high prominence of Senate candidate names meant that minimal filtering was needed to eliminate videos associated with another individual having the same name as the Senate candidate; unfortunately, the only major exception required filtering out videos from the fandom of the Backstreet Boys, who coincidentally have a member sharing a name with Wyoming Democratic Senate challenger Nick Carter. For 2008, videos must have been uploaded in the last year to increase the likelihood that uploading had some plausible campaign motivation. Not all candidate searches located 10 videos. Ultimately, the search identified 496 videos for the 66 candidates in 2006 and 633 videos for the 69 candidates in 2008.

Each of the videos was then analyzed for key features. First, the length was identified in total seconds. The number of page views was also recorded. The provider of the content was then categorized. The focus was entirely on who produced the content, not who uploaded the video. Thus, if a candidate’s campaign uploaded a segment from a local TV news station, it was coded as content produced by the local television news station. Next, the format (ad, speech, debate, etc.) was identified. The classification system was based on factors such as context, production values, and length. To provide the most complete picture, 30 unique categories were established. Since the categories are largely self-explanatory, elaboration is deferred to the results where specific examples are illustrative.

Lastly, videos were coded for valence. Although a subjective measure, this has been a major concern of early YouTube content analysis including two medical journal articles on whether YouTube videos portrayed immunization in a positive, negative, or neutral way (Ache & Wallace, 2008; Keelan, Pavri-Garcia, Tomlinson & Wilson, 2007). I coded the videos based on whether the principal impression was promoting a candidate, criticizing a candidate, or a
mixed impression. This approach is similar to the author (Carlson & Strandberg, 2008) classification of Finnish campaign content as “positive” or “negative” in the *Journal of Information Technology & Politics*.

An additional step was taken to identify the Top 12 most popular YouTube videos each year. As shown by Carlson and Strandberg (2008), special attention to the most viewed videos during a campaign is a very effective approach for capturing the main thrust of the YouTube campaign. They found that the ten most popular videos in the Finnish election accounted for half of all views. Thus, special care is taken to consider the most popular videos each year. The day before the election, the candidate names were searched again to get updated viewership figures. The Top 12 videos across all candidates were identified. For 2008, videos related to presidential politics were ineligible for the Top 12 list but remained in the full results. Without this exclusion, videos called up by Joe Biden and John Kerry searches would have dominated the list but revealed nothing about Senate politics.

**Results**

*Most Popular Videos*

The most popular videos convey much about the YouTube campaign experience. The twelve most popular videos in 2006 accounted for about two-thirds of all video views. In other words, the total number of views for the Top 12 videos was equal to the views for all the other 484 videos added together and doubled. In 2008, the most popular dozen had declined to one-third of all page views, but still represent a large share of YouTube activity. Table 1 depicts the Top 12 most viewed videos of each campaign.

The list of most popular videos provides strong evidence to reject the notion that citizens are competing in any meaningful way with professional, institutional participants. In 2008, nine of the twelve videos were produced by the candidates and parties. The other three were an interest group ad, a flattering floor speech by a candidate, and a press conference clip. Candidates actually might have more control over the messages in these twelve clips than they would on the typical local television station where mediated news stories about the campaign supplement paid candidate messages. Indeed, the content of a television station may better resemble the 2006 YouTube campaign when the news media had a little higher profile.

Despite the increased variety of content producers in 2006, the year was still dominated by the campaign combatants themselves. The assessment is strengthened by recognition that the amateur videographers who caught the Allen and Burns gaffes were opponent staffers. They were amateurs, yes, but amateurs functioning as part of the institutionalized campaign who presumably used information from their organization to facilitate opponent tracking. Ultimately, that would leave as the only two truly independent citizen generated clips an 18-second message by a citizen wishing Michael J. Fox well irrespective of his role in the Missouri Senate campaign and a mashup of Fox and Limbaugh media clips. Overall, the presence of these two clips on the list conveys more about citizen interest in entertainment celebrities than in competing with established players for campaign messages.
The most popular videos also provide little evidence to support the theory that technology is providing incentives for new formats. More than half (13 of 24) of the most popular YouTube videos were repurposed 30-second television ads. The dominance of television ads among the most popular videos is especially great in 2008 when they represent three-fourths of the Top 12 list compared to one-third of the list in 2006. The ads are all either harshly negative ads or positive ads featuring a compelling disability or both in the case of Parkinson’s-suffering Michael J. Fox criticizing Jim Talent’s position on stem cell research. One positive ad portrays a candidate bringing his prosthetic arm out from under a table to pop open a beer bottle, which demonstrates that the candidate is resourceful and someone with whom you would want to share a beer. The other positive ad shows a disabled veteran praising Mark Udall through voice-assistance technology. The negative ads include some colorful ads such as Jim Slattery’s gigantic establishment figure hosing regular people with gasoline. With Republican celebrities like Victoria Jackson and John Ratzenberger telling viewers not to think poorly of Hollywood because of Al Franken, an NRSC ad in Minnesota prompted left-leaning bloggers to try to top themselves in denigrating the celebrities as B, C, D or E list.

One other characteristic of some of the most popular ads is that they may have crossed the line into unethical campaigning. In 2006, voters flocked to YouTube to view the RNC ad that attacked Tennessee candidate Harold Ford. While there, they could decide for themselves...
whether the ad had racist undertones as some had suggested. In 2008, the most viewed Senate campaign video was the Elizabeth Dole ad attacking her opponent Kay Hagan for raising money from an atheistic organization. People could make up their own mind whether Senator Dole crossed the line by juxtaposing Hagan’s face with another person saying “there is no god” at the fundraiser. The same controversy also prompted the seventh most popular 2008 video when Hagan rebutted the Dole ad.

Many of the other popular videos are repurposed content from traditional campaign events such as speeches or debates between the candidates. Some videos, however, do suggest YouTube-motivated content. There is one point-counterpoint mashup on the list. Of course, it hardly took a mashup to link Michael J. Fox to Rush Limbaugh since Limbaugh criticized Fox and news stories covered the conflict. YouTube and the webcam also clearly have increased the face to the camera talk format, such as the citizen and Kennedy clips on the list. There is, however, nothing new about head-on approaches, which have long been more popular in other countries (Holtz-Bacha, Kaid, & Johnston, 1994). Thus, YouTube may prompt candidates to forego more traditional American style campaigning for a less glamorous, more earnest communication format.

Although music videos are not new, YouTube does seem to increase the incentive to produce them for political use. The format is represented on the list by a music video produced by the 2008 John Cornyn campaign. The video uses the familiar music refrain “Big Bad John” to present Cornyn as a tough Texan. The lyrics emphasize that Cornyn will fight for the people of Texas: “The Senate wasn’t ready [for Cornyn], said pay your dues... Ya se I’m from Texas where we do things quick and the way this place is run is about to make me sick. Big John. Big Bad John.” Although this is a rare example of a campaign producing unconventional content, it is difficult to give the Cornyn campaign too much credit for looking ahead. After all, a self-congratulatory music video would seem ripe for the time honored Internet technique of parody. Indeed, the campaign workers of opponent Rick Noriega were even relieved of the burden of having to write a new chorus. They could work with “Big Bad John.” By changing the intonation of “bad,” it was no difficult task to evoke the more common meaning in their parody video criticizing Cornyn. The Noriega campaign video about big, bad, ineffective John Cornyn missed out on the Top 12, but was viewed more than 25,000 times.

The list gives room for debate about the value of the signature YouTube strategy of videotaping gaffes. Although one cannot know for sure the extent to which George Allen’s misstep captures an actual character flaw, it does reveal how YouTube can expose candidates who speak differently to different audiences and articulate candid thoughts about politically relevant matters. The clip of Conrad Burns sleeping at a hearing is less clear as what can be taken for a lack of interest in a key issue affecting Montana might be better seen as a product of a demanding travel schedule that could affect anybody regardless of interest in the issue.

A close cousin of videotaping gaffes is filming the response of a candidate to being unexpectedly approached on the street. The value of this person-on-the-street interview format would seem to depend on whether the goal is roll-the-tape accountability on a politically relevant subject or the type of celebrity inquiry featured on TMZ. The format is represented on the Top 12 list by a clip of Harold Ford being approached on the street for an impromptu response to a question about his attendance at a Playboy Super Bowl Party. Ford’s response suggests that the clip can be safely characterized as TMZ politics: “I like football and I like girls and I have no apologies for that.”
The most popular videos provide little evidence that YouTube is providing an incentive for longer messages. In fact, the 30-second length dominates the list and two other videos are actually shorter (Ford comment and Fox well wishes). Overall, nine of twelve videos in 2008 and five of twelve in 2006 were 30 seconds or less. Length probably has the most impact on the press conference clip in which Norm Coleman’s press secretary refuses to discuss a lobbyist gift scandal. While a news story might show only the first refusal to answer the question, YouTube could show the same question asked many different ways with the same refusal repeated for 3 minutes 43 seconds in a way that reveals that the reporters really want to ask and the press secretary really doesn’t want to answer the question. The only clip longer than 4 minutes is the over seven minute 2006 interview of Michael J. Fox by Katie Couric, who remained prominent on YouTube in 2008 with her Sarah Palin interview.

All Videos

Examining all the videos in the study, the YouTube presence of candidates is still dominated by content created by the establishment political culture. Table 2 shows the content producers of all YouTube videos in 2008. The candidates themselves are far and away the most frequent content producers with responsibility for one-third of videos. The second largest content producer is the opponent of the candidate for whose name the search was conducted. Combined with the party of the opponent, the voice of the opponent is represented by about 21% of the videos. Another 20% of the videos are from conventional television stations whether local, national, or C-SPAN. Combined, then, the candidates, their parties, and the media represent at least three-fourths of all videos.

The residual one-fourth share substantially overstates the role of nontraditional participants. Some of the balance represents interest groups and non-television media outlets. In almost every case, the 4.1% of other candidate views are not from minor parties. Rather, they are produced by failed major party candidates from the primaries. The virtual absence of third party candidates should not be dismissed as merely an artifact of not searching for their names although that methodology certainly worked against them. Third parties and their candidates could have been part of the 20% of opponent-produced videos, but they were not.

Ultimately, the number of truly independent videos is very small. While the number of ostensibly unaffiliated videos is a noticeable 12%, many of these are produced at the behest of established institutions but are not identified as such. There are many reasons why the producers are not identified. The candidate may not have an official YouTube channel and it’s just easier to encourage staffers to use their own channels. Attaching formal credits to a video adds an extra editing step that may be omitted for convenience. Of course, the candidate may also want the material to look independent. Strong evidence for these explanations is the intimacy of many of the independent/unidentified clips in which candidates are shown in private discussions or closely held meetings that would have required high levels of candidate cooperation. Also many of the unaffiliated clips are public events in which the actual content producer is unclear but the candidate largely controlled the event.
Overall, content produced by ordinary citizens was rare and undistinguished in 2008. Looking at the scattered assortment of independent videos, it is difficult to classify their contribution to the campaign as anything other than minimal. Perhaps the most compelling and easily the most popular clips were comedy sketches associated with the YouTube presence of Joe Biden and John Kerry that originated in Presidential politics. Although some amateur Sarah Palin comedy sketches were identified by searches for Joe Biden and Ted Stevens, they were not nearly as good or popular as the ones produced by the professionals at “Saturday Night Live.” Indeed, it was “Saturday Night Live” and Tina Fey that dominated YouTube viewership in the presidential campaign (Snider, 2008). An independently produced video in the Michigan race does take a citizen’s approach to physics: “[Carl Levin] is the guy whose nose is so long from all the lies he’s been telling that it’s created its own gravitational pull that just sucks his glasses right off his face.” Failed promise is also evident on the so-called Wall Street bailout about which the public had a different view (opposed) than establishment politicians (supported). Unfortunately, the YouTube campaign contribution on the bailout was a 29-second face-to-the-camera statement by a citizen punctuated by profanity directed at Max Baucus. Although this may have captured how many citizens felt, it hardly advances the debate. Another of the few citizen contributions was a 45-second mashup of Republican Jim Risch that was “enhanced” by morphing a dunce cap on him and distorting his voice. Indeed, the low quality of independent videos precludes offering a model for how these contributions can elevate the campaign.

The landscape of ordinary citizen contribution was marginally more vibrant in 2006 when the Senate election did not have to compete with the presidential election for citizen attention. Even so, the overall balance of content providers in 2006 was quite similar to 2008. Candidates were the top content producers. They exceeded opponents by more than 2 to 1. In 2006, television stations were a slightly higher percentage than in 2008, a decline that can be at least partly credited to greater copyright enforcement, especially by Comedy Central. The videos of independent producers appear slightly more prevalent in 2006. There were some music videos that showed creativity and involvement in the campaign. A number of citizens also created point-

<table>
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<th>Content Producer</th>
<th>Percent (n=633)</th>
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<tr>
<td>Candidate</td>
<td>33.0</td>
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<tr>
<td>Opposing candidate</td>
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</tr>
<tr>
<td>Independent/Unaffiliated</td>
<td>12.2</td>
</tr>
<tr>
<td>National television station</td>
<td>8.7</td>
</tr>
<tr>
<td>Opponent’s party</td>
<td>8.5</td>
</tr>
<tr>
<td>Local television station</td>
<td>6.8</td>
</tr>
<tr>
<td>Other candidate</td>
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<tr>
<td>Interest group</td>
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</tr>
<tr>
<td>Candidate’s party</td>
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</tr>
<tr>
<td>C-SPAN 2.5</td>
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<td>AM/FM radio station</td>
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Table 2
Content Producers of YouTube Senate Campaign 2008 Videos
counterpoint presentations using titles to link opposite viewpoints. By 2008, the old-style titles that gave rise to a more policy focus had largely disappeared. There were also a few earnest face-to-the-camera testimonials about the Senate contests.

Examining the format of all 2008 videos, it is clear that YouTube generally has not motivated new formats of political communication. In fact, the YouTube presence of candidates is dominated by the same ad format that dominates the spending and visibility of candidates outside YouTube. As shown in Table 3, the brief ad format (one minute or less) represents about half of the YouTube presence of Senate candidates. Although the study did not verify that ads ran on television, their frequent labeling as the nth TV ad and conformity to broadcast regulation give little doubt that most represent repurposed TV ads.

<table>
<thead>
<tr>
<th>Format</th>
<th>Percent (n=633)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brief advertisement</td>
<td>44.1</td>
</tr>
<tr>
<td>Candidate event speech</td>
<td>8.4</td>
</tr>
<tr>
<td>Long advertisement (&gt;1 minute)</td>
<td>6.0</td>
</tr>
<tr>
<td>News story</td>
<td>5.8</td>
</tr>
<tr>
<td>News interview</td>
<td>5.5</td>
</tr>
<tr>
<td>Candidate face-to-camera talk</td>
<td>5.4</td>
</tr>
<tr>
<td>Debate between the two candidates</td>
<td>4.6</td>
</tr>
<tr>
<td>News debate</td>
<td>3.5</td>
</tr>
<tr>
<td>Music video</td>
<td>2.8</td>
</tr>
<tr>
<td>Personal testimonial</td>
<td>1.9</td>
</tr>
<tr>
<td>Congressional floor proceeding</td>
<td>1.6</td>
</tr>
<tr>
<td>Comedy sketch</td>
<td>1.6</td>
</tr>
<tr>
<td>News conference</td>
<td>1.3</td>
</tr>
<tr>
<td>Person on the street interview</td>
<td>1.1</td>
</tr>
<tr>
<td>Subject documentary</td>
<td>1.1</td>
</tr>
<tr>
<td>Biographical sketch of candidate</td>
<td>.9</td>
</tr>
<tr>
<td>Canvassing</td>
<td>.9</td>
</tr>
<tr>
<td>Participation plea</td>
<td>.6</td>
</tr>
<tr>
<td>News commentary</td>
<td>.6</td>
</tr>
<tr>
<td>Event ambience</td>
<td>.6</td>
</tr>
<tr>
<td>Congressional hearing</td>
<td>.5</td>
</tr>
<tr>
<td>Doctored slam</td>
<td>.3</td>
</tr>
<tr>
<td>Comedy news talk</td>
<td>.2</td>
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<tr>
<td>Ad parody</td>
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<tr>
<td>Private interview</td>
<td>.2</td>
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<tr>
<td>Protest</td>
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<tr>
<td>Travelogue</td>
<td>.2</td>
</tr>
</tbody>
</table>

The dominance of brief ads is symbolic of a YouTube campaign that largely failed to motivate new formats of political communication. The YouTube presence of candidates is almost entirely repurposed material from communication that originated outside of YouTube. Perhaps the most compelling case for YouTube-motivated format is the 5.4% of videos in which the candidate faces and just talks to the camera. Although the format existed before YouTube, fewer of these videos would have been produced without it. Candidates seem to be drawn to the authenticity of this low-tech format on YouTube, even if their TV spots gravitate toward higher
production values. In any event, this format is a long way away from ordinary citizens using democratized production and editing to compete with professional content.

A variety of other YouTube-motivated content represents a small portion of video formats. Another format dominated by candidates themselves is the long ad of more than a minute. Sharing production values with their shorter counterparts, these ads represent 6% of the videos. An additional one percent of the videos are biographical sketches of the candidate. Other YouTube-motivated formats were shared by candidates and ordinary citizens. The most elaborate music video was a 3 ½ minute video produced by the Republicans featuring animated Democratic Senate candidates. The repeated refrain suggests that getting people in the Christmas mood was not the major purpose of the song 12 Days of Christmas: “On the third day of Christmas, the liberals gave to me, Al Franken ranting, two liberal Udalls and a tax hike for every family.” Other YouTube-motivated content includes personal face-to-camera testimonials (1.9%), comedy sketches (1.6%), person-on-the-street interviews (1.1%), and doctored slams (.3%).

While YouTube motivated little new content, the repurposed videos do reflect diverse forms of political communication. The second most common format was the event speech (8.4%). News media products also obtain heightened availability on YouTube. 5.8% of the videos represent a news story run by broadcast journalists. YouTube also features interviews with the candidate alone (5.5%) or as part of a debate with multiple guests (3.5%). Although all these formats were originally created for another purpose, repurposing content that interests voters can enhance the campaign environment.

As with content producers, the 2008 data on format is similar to 2006. The share of brief ads in 2006 was virtually identical to 2008 (43.5% vs. 44.1%). Just as in 2008, no other format reached even 10% in 2006 and the difference between years was never more than a net 5%. The most noticeable difference was the point-counterpoint critique, which accounted for 3% of videos in 2006, had disappeared by 2008 as the technology of titles became passé. Overall, it seems that in 2006 people were having a little more fun with politics as the more amusing formats of music video, ad parody, comedy sketch, and Letterman-type comedy news talk together accounted for 9.2% in 2006, but only 4.8% in 2008.

It also appears that arguably the two most pernicious YouTube-motivated formats have declined. The most important is the person-on-the-street interview which declined from about 2% in 2006 to 1% in 2008. Of course, accosting candidates on the street can be an effective technique to get a genuine candidate response to a question. It is also prone to abuse. The best example is 2006 when a person dressed in a gorilla suit confronted a candidate with a question. It is hard to be distinguished addressing a person in a gorilla suit. Indeed, in 2008, there was much debate about whether Democratic Presidential candidates looked distinguished answering a snowman’s question about global warming in the 2008 YouTube presidential debate.

Fortunately, the format that I call “doctored slam” represents less than one percent each year. The format uses technology to distort the appearance or voice of a candidate for the purpose of mean-spirited ridicule. This format is far from its humorous cousins like JibJab that use caricature for humorous effect. It is one thing to circulate a candidate gaffe that actually happened, but quite another to use technology to exaggerate a candidate’s misstep. A lowlight for this format is a video multiplying the debate stumbles of Ben Nelson.
The evidence about whether YouTube is motivating longer formats of communication is mixed. The dominant length in 2008 was the 30-second format, which accounted for one-third of all videos. The 60-second length is a huge drop to 5.2% of all videos. Beyond the dominance of the brief ad format, the results indicate a willingness to pursue lengthier communication. Looking at the length quintiles, 20% of all 2008 videos were 30 seconds or less, 40% of all videos were 36 seconds or less, 60% of all videos were 99 seconds or less, 80% were 222 seconds or less. There were very few long videos. Only 1.6% of all videos exceeded 10 minutes in 2008. These 2008 findings are comparable to the lengths in 2006. In 2006, the quintiles were: 20% of all videos were 30 seconds or less, 40% were 32 seconds or less, 60% were 70 seconds or less, and 80% were 175 seconds or less. As in 2008, long videos were rare in 2006 with only 1.2% of the videos exceeding 10 minutes in length. Combined, these figures show that communication exceeding 30 seconds receives some visibility on YouTube. A voter looking for sustained issue discussion, however, would still be better off with a full televised debate than anything available on YouTube.

Although the videos are short, they are not overwhelmingly negative. The well-established subjectivity of valence advises caution about exact percentages, but the distribution of 2008 videos as 36% positive, 22% neutral, and 42% negative gives little doubt about the big picture. All valences are well represented on YouTube. This was also true in 2006 when all valences were also above 20% and negative was the most common category. It is hardly surprising that much of the negativity is from repurposed TV ads, the neutrality is from media content, and positive content is from promotional ads and speeches.

The results further indicate that YouTube is a very favorable environment for Democrats. In 2008, the search for a Republican candidate name was more likely to generate Democratic-produced videos (29.6%) than videos produced by the Republican candidate or Republican Party (26.1%). Searches for Democratic candidates, in contrast, generated videos produced by the Democratic candidate or Democratic Party 46% of the time compared to only 12.6% for Republican-produced videos. Beyond the Democratic advantage in creating videos, little difference was seen between the parties in either format or valence. In short, the major party difference is that Democratic candidates enjoyed greater control over their YouTube presence than Republican candidates. While the empirical evidence clearly shows a Democratic advantage in YouTube content, it doesn’t necessarily support the theory that the Democratic ideology is more closely aligned with the technology. After all, the advantage could result from the Democrats spending more on Web campaigning than the Republicans (Winograd & Hais, 2008) in a good electoral year for Democrats.

Finally, the common assumption of dramatic growth in the importance of YouTube campaigning receives limited support from the evidence. First, the 2008 Senate election on YouTube had no equivalent to 2006 when the role of YouTube almost certainly changed the race in Virginia and may have changed the outcome in Montana. Obviously, in 2008, anything could account for the narrow difference between Coleman and Franken in Minnesota, but there is little evidence to suggest that YouTube was decisive. The most likely impact was in North Carolina where YouTube enhanced accountability for television ads. The North Carolina and other popular 2008 clips, however, could not compete with the viewership for 2006 videos. Outside of the most popular videos, there is evidence of some growth in campaign video views although it pales in comparison to the broader increase in YouTube views. The median number of views for the population of 10th most popular videos (i.e. the last video to get in the study for each
candidate) increased from 131 views in 2006 to 998 views in 2008. The overall median of videos in the study increased from 1,640 views in 2006 to 3,197 videos in 2008. This gap closes as one moves up to the 90th percentile for which the 36,286 views in 2008 was only a 43% increase over the 25,296 views in 2006. This modest growth and low impact in 2008 is strong evidence for rejecting the assumption of dramatic growth in YouTube campaigning.

**Conclusion**

The 2008 Senate campaign on YouTube provides little evidence to support the theory that democratized video editing, production, and distribution motivates new formats and producers of political communication. Rather, YouTube has broadened access to repurposed communication from campaign participants. This is the conclusion from a content analysis of both the most popular videos and a much broader range of campaign videos. The strong similarity between 2006 and 2008 adds greater weight to the results. YouTube campaigning has settled into a pattern that favors established political participants and traditional formats of communication.

There is certainly no evidence that democratized video is prompting new ways for ordinary citizens to hold Senate candidates accountable for their policy choices. Even the exuberant claims of accountability through YouTube in 2006 weren’t policy based, but more generally raised questions about fitness to govern in a diverse society. If there were a subject primed for policy accountability in 2008, it would have been the government program to buy troubled financial assets. The opinion of citizens differed sharply from politicians, especially Senators who ostensibly required deficit-raising add-ons to pursue the goal of saving the financial system. Although the parties agreed (mostly) not to campaign on the issue, the open field for citizen involvement was occupied by a 29-second rant.

The strongest case for accountability being promoted by YouTube might be holding candidates accountable for their ads that may have crossed the line into unethical campaigning. While YouTube has famously held candidates accountable for thoughtless comments, there is an even greater imperative to hold candidates accountable for decisions made after thought. As a decision made after at least some thought, running an ad is much closer to the type of decisions that Senate candidates will make as officeholders. This potential for holding candidates accountable for their ads is more significant since candidates may have quickly pulled their ad after a controversy arose. Further, in the fragmented media market, many people are not exposed to television ads at all either as broadcast ads or in news story ad watches. Having ads on YouTube allows people to go back and make up their own mind whether the controversy represents fake outrage by the opponent or poor judgment by the candidate.

Overall, the findings must be comforting to candidates, especially Democrats, who have kept more control over their message on YouTube than they might have thought possible. The YouTube presence of Senate candidates is dominated by candidates themselves communicating in traditional formats supplemented by the familiar products of the mainstream media. Through two election cycles, candidates have shown an ability to effectively repurpose communication for use on YouTube. There is even a little irony in people choosing to view 30-second ads that have historically had the gotcha appeal of providing accidental exposure to undesired messages. There is more irony in candidates happily repurposing 30-second ads that often convey the message that the people know best how to solve the nation’s problems without the added
inconvenience of citizens taking some control of the debate. If ordinary citizens had any insight into the profound challenges facing the Senate electorate in 2008, they weren’t sharing it on YouTube.

Notes

1. The study is open to replication. The methodology uses only publicly available videos and viewership figures. The SPSS dataset is available on request.

2. In the rare instances when the same video appeared more than once for a given candidate, only the most popular was included to avoid repeats. Conversely, an accurate appraisal of the YouTube presence of candidates required allowing the possibility that the same video would occasionally appear once on each of the two competing candidate lists. Independent Democrat Joseph Lieberman is included. Richard Lugar in 2006 and Mark Pryor in 2008 did not have major party opposition.

3. To account for buffers, the 30-second category includes videos from 30-34 seconds and the 60-second category includes videos from 60-64 seconds. Thus, brief ads are less than 64 seconds long.

4. The 10th most popular video for the 22 candidates in 2006 and the 8 candidates in 2008 whose name did not produce 10 videos is considered to be 0 for purposes of this calculation. This relatively open field for any video, even one with no measurable viewership, to get into the study provides some empirical, systematic assurance that an unreasonably high popularity threshold is not a major contributor to the minimal presence of citizen-generated videos. It remains possible, however, that the less popular excluded videos could systematically differ from the more popular included videos for selected candidates with a high YouTube presence.

References


YouTube and Facebook: Online Video “Friends” Social Networking

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Abstract

This paper examines the links to YouTube from the Facebook “walls” of Barack Obama, Hillary Clinton, and John McCain over two years prior to the 2008 U.S. Presidential election. User-generated linkage patterns show how participants in these politically-related social networking dialogues used online video to make their points. We show a strong integration of the Web 2.0 and new media technologies of social networking and online video. We argue that political discussion in social networking environments can no longer be viewed as primarily textual, and that neither Facebook nor YouTube can be viewed as isolated information environments. Their interlinkage pattern, combined with links to other sites, provides a multidimensional communication environment which participants must navigate in order to gain a full understanding of the issues. Civic life is becoming more sociotechnical, and will therefore involve engagements with ideas as they are constructed by others out of disparate information sources and their interlinkages.
Introduction

In the 2008 U.S. general election the internet, social networking sites, online video, and blogs played a more significant role than they ever had before [13,20]. Not only did all Presidential candidates have extensive websites, but all were offered and utilized Facebook sites, YouTube channels, and many other new media features of the internet. YouTube and CNN partnered to carry the Presidential debates to a new demographic. Facebook and CNN.com partnered to cover the inauguration on the internet and embed streaming video of the event with ongoing status postings. Barack Obama’s innovative use of information and communication technologies (ICTs) is credited with his ability to raise record amounts of money from multiple smaller donors, and the new whitehouse.gov website promised to utilize many features of Web 2.0

Use of the internet for political purposes has grown dramatically over the last decade. Smith & Raine [6] report that the percentage of American adults who report using the internet to obtain news and information about political campaigns rose from 16% in Spring 2000, to 31% in Spring 2004, and then to 40% in Spring 2008. They also report that internet use for political purposes most recently includes watching online videos (35% of all American adults in 2008) and using social networking sites such as MySpace or Facebook (10% of all American adults in 2008). For young people (18-29 years) the internet has become a primary source of news about politics.

Smith & Raine’s [6] data also show that thirty percent of all internet users have social networking profiles. Forty percent of social network users say that they have used the social networking site to engage in political activity, including discovering friends’ political interests or affiliations (29%), getting campaign or candidate information (22%), signing up as a friend of a candidate (10%), and joining a political group (9%). Twenty seven percent of young people reported using social networking sites as a source of information about the 2008 campaign [13]. As far as politicians are concerned, candidates for House and Senate seats in 2006 were more likely to update their Facebook profiles when they were in competitive races, and their Facebook support was correlated with their final vote share [18,20].

Social networking sites can be viewed as a new type of online public sphere [2,3,4,5,7,8], or context that encourages civic discourse and debate. To the degree that social capital is important to a healthy civic environment [14], social networking tools and online communities are seen by some as being a positive augmentation to real life communities and as an antidote to diminishing social capital [15,17,20]. However, other researchers have questioned whether participants in online communities are actually meeting new people and to what degree the discourse in these communities is exposing participants to new ideas or simply reinforcing already held beliefs [10,11,12].

The inter-linkage of internet sites provides a context in which to judge their significance and scope. Studies of interconnections among posts in political blogs have shown that they tend to be polarized and insular, with many links among similar blogs and few posts that move across ideological boundaries [1,11], although this effect might be more pronounced for the handful of so-called “A-list” blogs than for other blogs [9].

There has been little attention to the linkage patterns of politically-oriented community networking sites or to the interlinkage of these sites with online video sharing sites such as YouTube. In the metaphor of social networking sites as online public spheres, linking from a
social networking site to an online video would be like bringing a video into a public discussion and showing it to everyone as part of the discussion. Thus, the content of the video becomes as much a part of the discussion as the words themselves.

The use of the social networking tool Facebook by candidates and voters allows researchers an unprecedented opportunity to observe retrospectively and unobtrusively political conversation as it unfolded. We have begun examining the wall posts on the Facebook sites of the three major 2008 U.S. Presidential candidates – Barack Obama, Hillary Clinton, and John McCain – during a two-year period prior to the election. Figure 1 shows a portion of Hillary Clinton’s wall on March 28th, 2008. Wall posts are unthreaded comments from Facebook users who have become “friends” of the wall owner. Others may view wall posts but may not contribute. In previous work [16] we have discussed the distribution of posts and characteristics of posters in this Facebook corpus, and we have described linkage patterns both within Facebook and between Facebook and external sites. Here we focus on the links that users posted specifically to YouTube from the three walls. Our goal is to understand in a preliminary way how YouTube and Facebook were related to each other by the linking behaviors of Facebook users.

Method

The data for this study was gathered from the Facebook Wall pages for each of the candidates. The overall procedure for collecting the postings consisted of running a Java program that connected to and downloaded the wall content as an html page. As each page was downloaded it was parsed to extract the information for each posting. This information was written to a MySQL database and made available for subsequent retrieval and analysis. The following sections detail the steps of the process for collecting and organizing the wall post data.

Data Source

The Facebook Wall component for each of the candidates is reachable through a direct URL. As there are hundreds of thousands of postings, the Facebook site distributes these postings across multiple Wall pages in descending order by time. Each page displays approximately 20 postings and can be uniquely addressed by the URL of a candidate's Wall and a numeric index. For example, a Wall page with index 0 contains the most recent 20 postings made to the Wall. A Wall page with index 1 contains the next most recent postings and so on.

Each posting displayed on a Wall page contains the display name of the user who posted the comment, the day and time they made the post, and their posted message. The postings are ordered vertically with the most recent postings appearing at the top. Some postings display additional user information such as affiliated school.
Figure 1. A facebook page from Hillary Clinton’s wall on March 28, 2008.
**Data Capture**

We developed a Java program to assist us in gathering the hundreds of thousands of postings made on each candidate's Wall. The program automatically connects to a Wall page and then downloads and extracts the information for each posting displayed on that Wall. The extracted information is then written to a MySQL database. A typical run of the program begins with a specified Wall page URL gathered from a candidate's Facebook site. As noted above, each Wall page can be uniquely identified by a root Facebook URL combined with a numerical index. The Java program takes advantage of this by iteratively downloading and extracting pages 0 through N where N is the last (oldest) page of Wall postings. For example, the URL for the first ever set of postings on Barack Obama's Wall at the time of this writing is "http://www.facebook.com/wall.php?id=6815841748&page=26736". The root URL includes the Facebook identifier followed by a unique id for Obama's Wall, followed by an index, in this case, 26736. For each page that is downloaded, the individual wall postings are extracted by parsing the HTML source code (also called scrubbing). The extracted information for each posting was then written to a MySQL database. The extraction program is run once for each candidate and its output is stored. Subsequent runs of the program are designed to only update the database to contain those postings on the Wall that were made since the earlier runs.

**Data Storage**

For each posting extracted from the Facebook Wall pages we stored the following.

- **Wall Id** - a unique identifier for each of the candidate's Facebook Wall. This is also used in the root URL for the Wall.
- **User ID** - a unique identifier for the user. This information is not visible on the page but is embedded in the HTML source.
- **Timestamp** - the date and time the message was posted.
- **Message Content** - the text of the posting.
- **Network** - the listed network of the user. In some cases there are multiple networks. These are extracted using a subroutine that downloads and parses user profile pages.

**Results**

**Corpus**

We harvested the wall posts from the Facebook sites of U.S. Presidential candidates Barack Obama, Hillary Clinton, and John McCain from September 1, 2006-September 30, 2008. In this time period, a total of 76,045 individuals created 687,626 postings on the three walls. Participation on the three walls was not equal, with Obama’s wall containing 324,780 postings (47.2%), Clinton’s wall containing 316,330 postings (46%), and McCain’s wall containing 46,516 postings (6.8%). For this study, a JAVA program was written to extract all postings that match the regular expression “[Hh][Tt][Tt][Pp]” (which finds any occurrence of the letters “http” in order, but regardless of capitalization) and a domain name matching the regular expression
“[Yy][Oo][Uu][Tt][Uu][Bb][Ee]” (which matches occurrences of the letters “youtube” in order, but regardless of capitalization). This filtered the posts and selected only those that contained an active hyperlink to a YouTube video (URLs lacking the “http” prefix would not appear as active links in Facebook). Overall, there were 39,600 posts (5.7%) that included hyperlinks, with 9,497 of those posts including links to YouTube (1.4% of all posts, 24% of all link-containing posts). Obama’s wall had 4,467 YouTube links (47.03% of all YouTube links), Clinton’s wall had 4,283 YouTube links (45.10% of all YouTube links), and McCain’s wall had 747 YouTube links (7.87% of all YouTube links). These percentages are in line with the relative percentages of all posts across the three walls.

YouTube and the Top Ten Link Domains

In Robertson, Vatrapu & Medina (2009), we reported the top ten domain names to which posters linked from Facebook (Figure 2). In all, 21,467 links (54%) went to these top ten domains. Forty two percent of the top ten links (23.3% of all links) went to YouTube, followed by links inside of Facebook (18%), and links to various blogs (10%). The remaining links were distributed more or less evenly across news sites (cnn.com, nytimes.com, and yahoo.com), candidate websites (barackobama.com and hillaryclinton.com, but johnmccain.com was not in the top ten), popular professional news/blog sites and news aggregators (huffingtonpost.com and realclearpolitics.com) and a collection of other blogs (multiple sites within the blogspot.com domain).
Wall Crossing

The walls were open for postings from any Facebook member, so individuals could post on multiple walls. Posters are uniquely identified in Facebook, so it was possible to determine whether individuals posted on more than one candidate’s wall. We used “wall crossing” as one measure of the breadth of engagement of Facebook posters. Figure 3 shows the percentages of all individuals and the percentages of individuals posting YouTube links who posted to one candidate’s wall (Obama, Clinton, or McCain), to the walls of two candidates (Obama+Clinton, Obama+McCain, or Clinton+McCain), and to the walls of all three candidates. In both cases, the relative percentage of posters decreased dramatically as the number of cross-wall postings increased.

Figure 3. Percentages of all individuals and the percentages of individuals posting YouTube links in the three wall crossing contexts.

Figure 4 shows the percentage of all postings within each wall crossing category that contained links to YouTube. We were surprised to find that the percentage of YouTube posts increased as the number of walls increased. That is, individuals with broader participation profiles were more likely to post YouTube videos. In fact, the majority of postings (66.24%) from people who posted on all three walls contained links to YouTube.

Figure 4 shows the percentage of all postings within each wall crossing category that contained links to YouTube. We were surprised to find that the percentage of YouTube posts increased as the number of walls increased. That is, individuals with broader participation profiles were more likely to post YouTube videos. In fact, the majority of postings (66.24%) from people who posted on all three walls contained links to YouTube.
Approximately 73% of posters in the overall corpus posted only once (“unary posters”), and there was a very long tail to the distribution of posters in terms of their posting frequency. We also used frequency of posting as an indicator of engagement and depth of involvement with the political dialogs occurring in Facebook. In a related study [16] we showed differences in patterns of Facebook posting across frequency category, but postings with YouTube links always showed distinctively different patterns. We divided the corpus of link-containing posts into five categories: posts from unary posters (a single post), low frequency posters (2-10 posts) moderate frequency posters (11-100 posts), high frequency posters (101-999 posts), and extreme posters (>1000 posts).

Figure 5 shows the percentage of posters across the poster frequency categories for people who did not link to YouTube versus those who did. The most striking finding in this data is the difference in relative percentage of postings for unary posters. A large majority of posters who did not link to YouTube were unary posters (74.81%) whereas the percentage of unary posters who did link to YouTube was much less (27.11%). In general, the relative percentages of
posters across the poster frequency categories was much flatter for YouTube-linking posters than for non YouTube-linking posters.

Figure 5. Percentage of individuals who posted links to non YouTube sites and YouTube sites across the five poster frequency conditions.

Figure 6 (from Robertson, Vatrapu & Medina 2009-a) shows the relative percentages of links to each of the top-ten domains (with blogs aggregated into one category) across the five posting frequency groups (the percentage of posts in each frequency group adds to 100%). Links to YouTube dominate in all frequency categories and, unlike the other categories, the relative percentages of links to YouTube do not change across the frequency groups.

Verbosity

Elsewhere [16] we reported that the number of words in posts was higher for moderate frequency posters than for low or high frequency posters. In this study, however, we found that the number of words per YouTube post did not differ across the five poster frequency conditions (mean words per post = 23.92, 26.63, 28.10, 27.03, 25.58, and 26.22 for the unary, low, moderate, high, and extreme conditions respectively), $F(4,2562)=1.56$, MSe=969.68, ns.
Link Contexts

Approximately 61% of all of the YouTube links in our corpus were posted with no text. In the remaining cases, it is possible to discern something about the intent of the poster by the context of the accompanying text. In Robertson, Vatrapu, & Medina 2009-b, we identified five link contexts. Here we again propose those contexts as purposes for posting links to YouTube videos:

- Evidence: A video is provided in order to provide evidence for a position of belief or assertion. Sometimes the poster asks a question.
- Rebuttal: A video is provided in order to rebut a prior statement or assertion or to counter a widely held position, belief.
- Action: A video is provided in order to encourage action, for example donating money or joining a cause.
- Ridicule: A video is provided in order to ridicule, embarrass, or otherwise show someone in a bad light
- Direct Address: A poster directly addresses a candidate and provides a video

A user may post a video in order to achieve multiple goals. In the following section we present a brief and informal analysis of the textual context surrounding links to YouTube.
example text in this section is quoted verbatim with the exception of user names or id’s which have been replaced with the text “[Name removed]” or swearing which is replaced with “[***]”.

Evidence.

• “Barack Obama is not the only candidate who talks to younger voters...see the YouTube videos! http://www.youtube.com/watch?v=jp_mn1_z9UY&eurl=http://www.facebook.com/hillaryyclinton”

• “Obama supporter changing his mind http://www.youtube.com/watch?v=G6LtKDwVo-6”

• “This is called a primary source. Hillary CSPAN vote footage http://www.youtube.com/watch?v=t8fknhbB-Xo&feature=related I will take the President at his word, that he will try hard to pass UN Resolution and will seek to avoid war, if at all possible.”

• “The Truth about McCain, I’ll wait another four years for a better candidate http://www.youtube.com/watch?v=cLzWDmxUeLI&feature=related”

• “Tibet: The Truth http://youtube.com/watch?v=Xsoc4-QnpIY >Riot in Tibet: True face of western media http://youtube.com/watch?v=uSQnK5FcKas&feature=related”

• (also Action) “Obama lied to the people of Ohio on NAFTA. Send this to news media in Ohio!! The voters deserve to know http://www.youtube.com/watch?v=_LtbLEKHis0 >Here is some media links... lets send it out! http://www.nbc4i.com/midwest/cmh/about/contact.html http://www.daytondailynews.com http://www.ohio.com/about/contact.html http://www.wkyc.com/company/contact/”

• “Obama’s Tricks? http://www.youtube.com/watch?v=XwzVLP2NcjI&feature=related”

• “will a fellow obama supporter or obama moderator explain why he is aligned with this organization http://www.youtube.com/watch?v=XRLPG_HplRA”

• “[Name removed] Michael, >Watch it and find out... http://www.youtube.com/watch?v=sTFsB09KhqI”

• “McCain’s YouTube Problem Just Became a Nightmare http://www.youtube.com/watch?v=GEiZIR3zp4c”

Rebuttal.

• “Colin Powell didn’t endorse Obama.... http://www.youtube.com/watch?v=auco5TU8Y9g”

• “Die Hard Obama people will tell you that Obama is not against it. But he is. You just heard it. But as I said..he talks differently depending on who he is talking to. >Just watch this: http://www.youtube.com/watch?v=VHEli4XKRmM”
• (also Action and Direct Address) “McCain is the true flip flopper. Don’t believe me? Actually watch this, and tell me about the video to prove you did. Your probably too scared. How can you stand behind your candidate and then call the other a flip flopper? That is hypocrisy at it’s peak. http://youtube.com/watch?v=GEtZIR3zp4c >Oh and were not fighting a war, we’ve just invaded a country. Usually in war there are two sides in uniforms fighting against each other and you have the whole rules of engagement and war rules and such. >Don’t use the word hypocrite my friend, watch that video and respond to me, don’t avoid it.”

• [Name removed], a joke huh? Sen. McCain is a great man. How can you call someone the served our country a joke. Yes he does agree with President Bush on some issues, but there are also many which he does not. So before you start calling him a joke maybe you should take a look into it for yourself. McCain choose Gov. Palin because she a reformer like himself and is not in politics for her own personal interests. She is a strong woman and is going to BE a great VP, he didn’t need her to boost is campaign. http://www.youtube.com/watch?v=AtY_deSusQ8&feature=related http://www.youtube.com/watch?v=_zk0Hq0abZM“

• “What [Name removed] can’t get his head around is tat the same people that told us that Iraq had WMD s and Al Qaeda and tey had links to 9/11 are the same ones throwing this rhetoric out in our faces. >The hardest part of my job is linking Iraq to the war on terror. >GWB http://youtube.com/watch?v=3_Ds4O3z-Xc”

• “Double standard - Imus v. J. Wright. http://youtube.com/watch?v=g0pNjhZEqdQ >What does it tell you about what Obama wants to enable and encourage?”

• “Why does Hillary Clinton act as if her husband did not sign the NAFTA in 2004? She is so fake. http://www.youtube.com/watch?v=L28wLOES5eU”

• “Obama rebuts his accusers... personally... http://www.youtube.com/watch?v=eBGIQ7ZuuiU”

• “Yup Obama’s a liar! >everyone write write write: http://www.youtube.com/watch?v=_LtbLEKHsi0 >to Lou Dobbs (CNN) and Dan Abrahms (MSNBC) before it’s too late!!”

• (also Action) “The Clintons ARE lying and distorting Obama’s record. Don’t think Obama was against the Iraq war from the start? Watch this video from 2002 and educate yourself: http://youtube.com/watch?v=sXzmXy226po...”

• “No [Name removed], Hillary played dirty... Obama didn’t. I don’t have anything personal against her, but the best democrat won. >Anyway, even Fox agrees McCain is a joke http://youtube.com/watch?v=3aMDJP4VxY4”

Action.

• “Ask Obama to run, in a video: http://www.youtube.com/watch?v=SMiL98CpDLU >Then enter it here: http://www.studentsforbarackobama.com/getinvolved.html#YouTube >Show your support!”
• “everyone write write write! http://www.youtube.com/watch?v=_LtbLEKHi0 >to Lou Dobbs and Dan Abrahms before it's too late!!”

• “TO ALL OBAMA SUPPORTERS! >Watch this video, where a Clinton advisor says, > Indiana, those people are [****]! They are stupid  http://www.youtube.com/watch?v=e-MzByUHHzw >before Clinton's election in 1992. SPREAD THIS VIDEO AROUND, IT NEEDS TO GO VIRAL!!! THIS IS THE REAL CLINTON AND IF THE PEOPLE IN INDIANA FINALLY REALIZE IT, OBAMA WILL WIN!!! >SPREAD THE VIDEO NOW!!! http://www.youtube.com/watch?v=e-MzByUHHzw”

• “yeah.. >please pass this around about the Bosnia trip! http://www.youtube.com/watch?v=Pe5AU-tic”

• “McCain supporters pass this video along: http://www.youtube.com/watch?v=LCbrveq1XbQ

• “Watch this. Pass this link on and get some good media coverage: http://www.youtube.com/watch?v=Nc5lHXkrdQ8”

• “All McCain supporters!! Watch this news-- http://youtube.com/watch?v=jiFsxp5qOpM

• “Tell everyone about this. No one seems to care. >Same finger at the same point of the same speech given at two different events on the same day. http://www.youtube.com/watch?v=DeygBj4Zw6No”

• http://www.youtube.com/watch?v=Zhkq11ULCxcw >Is it possible to put these videos up on this page? Would someone make an ad since the media's not picking it up? >Sigh. I'm resigned to voting for a loser again on Tues. I know that's not what you want to hear.”

Ridicule.

• “HILARIOUS parody of Obama by Christopher Duncan! The Donald Duck part is especially funny! Enjoy! http://www.youtube.com/watch?v=c8N_VAdYOgU”

• “WOW! He does not get it!!!!!! http://www.youtube.com/watch?v=7o84PE871BE&eurl=http://www.rushlimbaugh.com/home/today.guest.html”

• “Rush Limbaugh has a crush on Hillary and his crazy [***] operational chaos ~LOL >Today will be a BIG DAY for Hillary! http://www.youtube.com/watch?v=EoOGvkhKp2o&eurl=http://www.realclearpolitics.com/video_log/”

• “Sorry [Name removed], but everytime Khayam speaks I feel like he should be doing a two step and singing that he represents the Lollipop Guild. http://www.youtube.com/watch?v=k_CAs3q7G48 >Rep. Khayam Raza (D-Munchkinland)”

• “Palin’s idea of VP http://www.youtube.com/watch?v=loUHRv3ipLE&feature=related”

• “McCain Brain...lol... http://www.youtube.com/watch?v=9qUVQDmL77s”

• “Obama is a preacher. Go start a church.  
  http://www.youtube.com/watch?v=1C7FStyVKvE”

Direct Address.

• “McCain run, run, run! video tribute to John McCain:  
  http://www.youtube.com/watch?v=U1QHLSfAqO8”

• “Dear Senator McCain, I wish you talked more about nuclear safety and security. This issue should be on top of your agenda. Nuclear terrorism is not a joke, and the United States have way too many nukes to keep them safe and secure... >Here is a little tip for you: http://www.youtube.com/watch?v=0yKDmlF6C3I”

• “JOHN! I made a 30 second commercial for you on YouTube:  
  http://www.youtube.com/watch?v=HaTddfODbKA >Enjoy my friend.”

• “YOU ARE A REAL HERO MCCAIN!!! ALL OF OUR SUPPORTERS SHOULD WATCH YOU IN ACTION!!! HEHE ;-)  http://www.youtube.com/watch?v=fm9rLDU-Sif”

• “To the Hillary Campaign, I would contact the creator of this video:  
  http://www.youtube.com/watch?v=r1ATFhHhMQc >This is just such an emotionally charge spot that presents all of the great reasons to support her, I would highly recommend you contact the creator if you haven t already, because running this spot on TV and at events will make people the wake-up and energize them behind Hillary. It s powerful, to the point. >Suggest you post it on hillaryclinton.com just like Barack posted that rather lame music video on his site.”

• “ hill - look - if you really want to know how i feel about the dnc resolution - in this post, most notably, michigan, please watch this:  
  http://youtube.com/watch?v=um5QHGxmoBE >i am not going to recount the arguments and points proposed therein. the onus is on you to watch (if you have not already, and let it be known, i hope you have already). i d like to know what you have to say / think in these regards.”

• “Hillary, marry me, baby!!  http://www.youtube.com/watch?v=J2IEczSCuWQ >#sigh*”

• “BRUSH IT OFF BARACK!!!!!!!!!  http://www.youtube.com/watch?v=zZJex9Ge2-Q”

• “Obama your not very supportive of critiques! I suggest you leave my comments up!  
  >Now for people that want to know why to Vote for Hillary review this:  
  http://youtube.com/watch?v=4gexyfVpFMU”

• “A message to Hillary – DON’T Mock Obama and his Supporters!!!  
  http://www.youtube.com/watch?v=w7PXAJABO_4 >Cheers”

  A significant next step in our research program is to characterize the context of wall postings and their relationship to different types of posters more thoroughly.
Summary of Results

In this study we focused on the pattern of posts containing links to YouTube on the Facebook walls of the three major candidates for U.S. President in 2008. The findings reported here can be summarized as follows:

- A small amount of the total activity (1.4%) on the walls of the candidates involved linking to YouTube, however approximately a quarter of all posts that contained links were pointed to YouTube.
- YouTube dominates the top ten sites to which Facebook posters linked. 42% of the links in the top ten went to YouTube.
- Breadth and depth of posting matter in the use of YouTube. Posters who are highly involved in Facebook political discourse, as evidenced by the number of different candidates’ walls on which they posted and the number of posts they made over two years, tend to post more links to YouTube.
- Text surrounding links to YouTube suggests that linkers have at least the following motives:
  - Providing evidence to others for a point of view, belief, or position
  - Offering rebuttals or negative evidence to others against a point of view, belief, or position
  - Encouraging others to engage in political action on the internet and in real life
  - Sharing funny or satirical content with others and ridiculing politicians
  - Influencing a politician by direct request, and encouraging or discouraging a politician by direct statements of support or distaste

Discussion

Social networks, Facebook in particular, and online video, YouTube in particular, are important components of Web 2.0 technologies. These technologies are characterized by user-generated content, multi-way communication, and multi-media content. In this study we have shown that social networking and online video in the context of political discourse are tightly connected by user-generated interlinking. For highly active social networkers, blogs are also providing important contexts for comments and opinions. The ecology of political discourse using these tools moves seamlessly among multiple user selected, and often user created, content in multiple forms.

Public discourse is an essential aspect of public spheres and online discussion is an integral component of online public spheres. However, going forward “discussion” can no longer be viewed as primarily textual. Neither Facebook nor YouTube can be viewed as isolated political discourse environments. Their interlinkage pattern (combined with links to other sites) provides a multidimensional communication environment which participants must navigate to gain a full understanding of the issues. Civic life is becoming more sociotechnical, and will therefore involve engagements with ideas as they are constructed by others out of disparate information sources and their interlinkages.
The sociotechnical construction of ideas in the online public sphere will require visualization and navigation environments that can transcend applications (i.e. move seamlessly among Facebook, YouTube, blogs, official websites, etc.) and information modalities (i.e. text, video, interactive graphics, etc.) to provide an integrated sense of civic involvement. Increasingly, being knowledgeable about civic matters may involve greater technical sophistication and access. The current tight coupling of YouTube and Facebook is just the beginning of the evolution of e-government and e-participation to more complex, but hopefully more useful, sociotechnical contexts.

The information network that is generated by one’s friends in a social networking environment such as Facebook will become an increasingly important source of learning and participation. In the context of politics, research is needed on how these friend-generated information spaces are used to make decisions about candidates and issues, develop political identities and affiliations, and participate in “techno-civic” life.

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References


John McCain gets BarackRoll’d: Authorship, Culture, and Community on YouTube

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Abstract

The 2008 presidential election provides a clear example of how new media, in its support of individual expression, can be used to support and sustain community action among large groups of people. While this election does not owe its outcome entirely to new media, new media provided platforms upon which portions of the election played out, namely through YouTube, cell phone and email networking, facebook, and blogs. Specifically, this cultural studies analysis explores the viral YouTube video “John McCain gets BarackRoll’d” as an example of a text that utilizes the affordances of new media to construct a text from other fragmented texts. While this text is clearly constructed for individual expression and makes visible and tangible the human desire to create and transmit individualized messages, it is also a semiotic construction that utilizes a series of symbols to broadcast to other individuals for whom these symbols are shared and culturally significant. Much like the role print technology plays in Benedict Anderson’s imagined community, this YouTube text, while being fluid and easily appropriated, also represents an effort toward the establishment of commonality between individuals who might otherwise never interact. In other words, YouTube videos are examples of individual uses of technology to establish community and a sense of continuity within that community through the use of shared symbols.
The development of new media has created a technological shift that allows individuals to easily take on the role of author of their own cultural messages. The critical theorist Walter Benjamin predicted a similar shift resulting from the age of mechanical reproduction. In 1935 in his *The Work of Art in the Age of Mechanical Reproduction*, Benjamin suggested, “the distinction between author and public is about to lose its basic character” (p. 28). While he is referring to an era of mechanical reproduction, Benjamin’s description appears to predict the age of digital reproduction in which contemporary users of new media switch fluidly in one moment to the next from their role as “reader” to “author” of a text. New media allows consumers to access an infinite number of texts while affording them the ability to react in turn with their own individual thoughts, responses, and ideas through any number of vehicles including blogs, YouTube, and social networking sites like Facebook.

The 2008 presidential election provides a clear example of how new media, in its support of individual expression, can be used to support and sustain community action among large groups of people. While this election does not owe its outcome entirely to new media, new media provided platforms upon which portions of the election played out, namely through YouTube, cell phone and email networking, Facebook, and blogs. Specifically, this cultural studies analysis explores the viral YouTube video “John McCain gets BarackRoll’d” as an example of a text that utilizes the affordances of new media to construct a text from other fragmented texts. While this text is clearly constructed for individual expression and makes visible and tangible the human desire to create and transmit individualized messages, it is also a semiotic construction that utilizes a series of symbols to broadcast to other individuals for whom these symbols are shared and culturally significant. Much like the role print technology plays in Benedict Anderson’s imagined community, this YouTube text, while being fluid and easily appropriated, also represents an effort toward the establishment of commonality between individuals who might otherwise never interact. In other words, YouTube videos are examples of individual uses of technology to establish community and a sense of continuity within that community through the use of shared symbols.

This essay will begin with a discussion of how to address YouTube and its relationship to media theory. A description of the text under investigation will follow. Due to the relative lack of research that specifically addresses the questions of new media, this essay will draw upon existing television media literature, including Stuart Hall and John Fiske, in addition to new media theorists, such as Lev Manovich and Henry Jenkins, to explore the nature of YouTube authorship. Using Benedict Anderson’s concept of *imagined community* this essay will then address questions of individuality and the creation of community through technology. The essay will conclude with a discussion of the implications new media technologies have on authorship, community, and political commodities.

**YouTube: New Medium, Vehicle, or Tool?**

Literary critic and critical theorist Walter Benjamin in his *The Work of Art in the Age of Mechanical Reproduction* argued that the technological advances of mechanical reproduction, coupled with the growth of the press, created a scenario in which readers were increasingly capable of becoming writers. He predicted that, “the distinction between author and public is about to lose its basic character” (p. 28). While his argument refers to a change within traditional media, his suggestion that “[a]t any moment the reader is ready to turn into a writer” (p. 28)
provides an extremely apt description of a user of new media who now can move seamlessly from viewing television coverage of a political event to constructing and broadcasting a response via YouTube. This new role as media reader/writer has interesting affects on the analysis of new media.

Exploring the role of authorship of the reader/writer within new media is problematic insofar as it is difficult to pinpoint what type or types of media are being authored when referring to new media. Lev Manovich, in his *The Language of New Media*, draws attention to this through the use of the term *new media object* to describe what might otherwise be seen as distinct media, everything from a digital still image, to a computer game, to a Web site, and to, indeed, the Internet itself. Therefore, he suggests the Internet can be seen as both a platform for a series of types of *new media objects*, like digital images, digital video, and Web sites, as well as a *new media object* of its own. The Internet can be viewed as a vehicle for traditional media, a tool for the production and dissemination of traditional media, or as a source for a new medium that is specific to Internet technology. Limiting this discussion to YouTube, the next layer of complexities of authorship in new media becomes clear. The texts broadcast by YouTube range from pirated versions and clips of television shows, to fan fiction, to individual chatter, to family videos. YouTube provides a platform from which traditional mass media can be rebroadcast, remixed, or recreated. However, YouTube is also a location where new and individual uses of the site exist independent of mass media. There are so many possible uses of YouTube that its role as a new medium or as a platform for multiple and hybrid media (both traditional and new) can easily become confused. Is YouTube itself a medium? Or is it a vehicle for multiple media? Or is it a tool for creating media? This conflation of media, media platform, and media tool makes a media studies analysis of YouTube a daunting task. In order to discuss the media, cultural, and political implications of YouTube, or, indeed, any new media, it is first necessary to determine what type of media object it is and what media lens to view it through.

Certainly this question is complex and deserved of ongoing investigation, however, for the purpose of this discussion YouTube will be treated as a medium in itself and the distinction between types of texts and associated affordances on the site will be treated as generic distinctions. YouTube meets the principles of new media, as laid out by Lev Manovich in *The Language of New Media*. YouTube, like all Web sites, is digital, modular, and automated. Due to the social components of YouTube it is also infinitely variable. It changes with every visitor to the site. Finally, YouTube is an example of transcoding, in which media becomes computer data. Transcoded data has a dual identity: “…computerized media still displays structural organization that make sense to its human users…from another point of view, its structure now follows the established conventions of the computer’s organization of data” (Manovich, p. 45).

The choice to treat YouTube as a distinct medium, as opposed to a genre of social software or Web site, offers several affordances to this analysis. Due to similarities of presentation between television and YouTube videos, treating YouTube as a medium allows this analysis to draw upon traditional television media theory, whereas treating YouTube as a genre of social software, alongside Facebook and MySpace, would not allow for the use of television theory. Furthermore, treating YouTube as a distinct medium suggests the discussion of generic differences that make the video in question particular. The distinction between “John McCain gets BarackRoll’d” and other YouTube videos, for instance, the “Yes We Can” video or rebroadcast news coverage of an Obama interview, is essential to understanding both the implication of the video and YouTube itself. Finally, YouTube allows for a series of activities
associated with the text, namely, view text, comment, embed, and subscribe, etc. These activities are a part of the overall experience of the medium itself. While these characteristics of YouTube will not be discussed at length within this analysis, treatment of YouTube as a medium permits a detailed examination of the characteristics and affects of these particular activities.

By no means am I suggesting that YouTube should always be analyzed as a distinct medium. It can be argued that YouTube is not a medium in itself and that, rather, it constitutes a platform for multiple media or that it is a media tool or that it constitutes a genre of media. However, to date, this evasive quality seems to be a characteristic of new media. While Manovich does not explore this quality in detail, his definition of the term new media object as including “a digital still, digitally composed film, virtual 3-D environment, computer game, self-contained hypermedia DVD, hypermedia Web site, or the Web as a whole” (p.14) suggests a nested nature of new media. If the Internet itself is a new media and it contains other new media within it, it becomes necessary to discuss the media and their implications on micro, meso, and macro scales depending on what characteristics are under examination. Taking a lesson from quantum physics’ study of light—in which light is both a particle and a wave depending on how it is tested—I would posit that the treatment of platforms such as YouTube, at least for the time being, should depend on the phenomena under investigation. Since this analysis addresses a particular YouTube video, “John McCain gets BarackRoll’d,” the authorial affordances that YouTube offers, and the influence YouTube has on the construction of a community, a micro-level inspection of YouTube itself, as opposed to other social software or the Internet as a whole, suits the analysis. Therefore, all texts available through YouTube will be discussed as texts that are created through a similar process of construction and the details of that construction—such as text selection, alteration, and/or creation—contributes to generic distinctions.

**John McCain gets BarackRoll'd**

Like many contemporary texts, an understanding of the YouTube video “John McCain gets BarackRoll’d” requires an understanding of the text fragments from which the video was constructed. In order to explore the meaning and implications of the video, these fragments will also be explained. This video evolved from a series of YouTube video phenomena that began, more or less, with RickRolling. RickRolling is an Internet meme that works on a falsely advertised link, often received in an email. The link is masked in some way, claiming to be a link to something of interest. However, rather than connecting to what it says, the link leads to a YouTube version of Rick Astley’s 1987 music video “Never Gonna Give You Up” in which Astley performs the song while dancing. The use and appeal of this particular video is unclear. Internet sources have referenced a number of characteristics, including alleged homoerotic undertones (encyclopediadramatica.com) and 1980’s “fetishism” (O’Brien, 2008).

According to a poll conducted by Survey USA over 18 million Internet users were RickRolled by April 2008. RickRolling now extends beyond the limits of the Internet and has been used as a prank in instances from college basketball games, scientology protests, NPR news coverage, and Carson Daly’s late night show. Most recently, in November 2008 Rick Astley

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1 RickRolling actually evolved out of an old Internet joke called Duck Rolling, which was a link leading to a duck on wheels.

2 [http://www.youtube.com/watch?v=oHg5SJYRHA0](http://www.youtube.com/watch?v=oHg5SJYRHA0)
herself RickRolled the Macy’s Thanksgiving Day Parade by performing the song on a float ostensibly dedicated to children’s characters.

An August 2008, as a spin off to the RickRoll video, Hugh Atkin, a well-known producer of YouTube viral videos and Barack Obama fan, created “BarackRoll,” as a parody of the Rick Astley music video. In it Atkin splices together a series of clips of Barack Obama speaking in order to show Obama speaking the words of “Never Gonna Give You Up” while the song plays in the background. In keeping with the original music video’s format, this video also includes clips of Barack Obama dancing on the Ellen Degeneres Show in a manner that is vaguely reminiscent of Rick Astley. The other clips that appear in the video include those taken from press conferences, interviews, speeches, and other campaign events. As of December 2008, BarackRoll had almost 5 million views on YouTube.

In September 2008, Atkin created the follow up to “Barack Roll” with “John McCain gets BarackRoll’d.” This video makes use of the blank screen that appeared behind John McCain at the Republican National convention to play the “BarackRoll” video. The BarackRoll video appears to interrupt McCain’s speech, much like a RickRoll prank. Although it did not actually happen, the video is cut in such a way as to make it appear as though McCain was “BarackRoll’d” as a prank. The clips of McCain show him appearing to respond to the video as an annoyance while an enthusiastic audience, including Cindy McCain and Sarah Palin, chants “Obama! Obama!” As of December 2008, this video had approximately 2.6 million views.

The “John McCain gets BarackRoll’d” video also appears within the context of a series of other YouTube videos that, while not directly referenced within this video, nonetheless create a genre of election videos of which this video is a part. These videos include clips of real and doctored election coverage, individual rants, support videos—like “Yes We Can,” attack ad style videos—such as “McCain’s YouTube Problem Just Became a Nightmare,” and parodies of support videos—like “john.he.is,” to name a few. These videos often reference and feed off of each other much like the evolution of the “John McCain gets BarackRoll’d” video. These videos are generally youth focused, ranging from the humorous, to political critical, to sentimental, to apathetic. However, in the months leading up to the election, the trend of videos, in number videos, but more impressively in time viewed on YouTube, was clearly in support of Barack Obama. According to Tube Mogul, Obama’s YouTube channel was watched for 14.5 million hours, compared to McCain’s channel at 488, 152 hours (Ramirez, 2008).

While it is important to reference some of the other videos that make up the context of the “John McCain gets BarackRoll’d” video, it is also critical to note that viewers of this video may not have seen all of the contributing videos referenced in this analysis. Any given viewer of “John McCain gets BarackRoll’d” would understand the video differently based on how much interaction he or she had with RickRolling, BarackRolling, and the genre of YouTube election video. The next section will discuss the affects that a user’s context has on the way he or she authors or interprets a given video.

3 http://www.youtube.com/watch?v=65I0HNvTDH4
4 http://www.youtube.com/watch?v=_TiQCXpbKg&feature=related
5 http://www.youtube.com/watch?v=1z2fPi2VtQI
6 http://www.youtube.com/watch?v=GEtZI3p4c
7 http://www.youtube.com/watch?v=3gwqEneBKUs
New Media/New Authorship

The process of construction of and interaction with a YouTube text can be seen as a process similar to the encoding/production and decoding/interpretation of a television text. Stuart Hall, in his *Encoding/Decoding*, discusses the difference between what is encoded into a television text—or what the producer/encoder of the text intends the audience to understand from that text—and what is decoded—or drawn from the text by the viewer/decoder. Hall’s map for how messages are encoded and decoded into television texts involves a series of “moments” within the production process in which codes are applied and later decoded by an audience. Hall developed this theory for textual analysis to explain how an audience does not passively accept a text, but rather constructs meaning for the text based upon his or her background.

The steps involved in the encoding and decoding follow. First, information from the “wider socio-cultural and political structure” is selected for encoding by the producer/encoder. This information is then encoded using particular meaning structures to make a text. This television text constitutes the “meaningful discourse” that the encoder and decoder have in common (p. 165). The process of decoding is a reversal of encoding; the decoder decodes the text based on his or her own set of meaning structures. The way in which the decoder understands the text, eventual feeds information back into the socio-cultural and political world of which the individual is a part. However, “the codes of encoding and decoding may not be perfectly symmetrical. The degree of symmetry—that is, the degrees of “understanding” and “misunderstanding” in the communicative exchange—depend on the degrees of symmetry established between the positions of the “personifications” of the encoder-producer and decoder-receiver” (p. 166).

Hall’s map for the encoding and decoding of television media is a valuable lens for viewing YouTube media. YouTube texts are created through a similar process; however, YouTube, and other new media, expand the potential for text production. Since YouTube allows for the possibility of the individual production and dissemination of “television-like” texts, it opens up the encoding process; anyone with Internet access and a few simple tools can encode a video that could be viewed around the world. With slight adjustments, Hall’s model for symmetry within communicative exchange can be expanded from the “one to many” model of television to the “many to many” model for YouTube.

Viewing “John McCain gets BarackRoll’d” through the lens of Hall’s theory of encoding, the importance of the information that is selected from the “wider socio-cultural and political structure” comes under investigation. Clearly this text is intertextually constructed upon many references to other texts in the “wider socio-cultural and political structure”: the RickRoll and BarackRoll videos, the prank nature of the RickRoll video’s use online and off, the candidates in question, the Republican National Convention, the presidential race, etc. All of these references are used to construct a text. The text cites these references as symbols that, when combined, suggest another larger meaning.

Although the political intentionality behind the video is not necessarily immediately apparent without knowledge of Atkin’s support of Obama, it references the image of Barack Obama as being “in” on the RickRoll and BarackRoll memes and therefore youthful, internet-savvy, even hip (as far as contenders for the presidency go). On the other hand, McCain is the one being pranked in the video and is portrayed as humorless, unaware, and old fashioned. This video is reminiscent the way Andrew Wernick suggests a 1989 Polish election poster featuring
an image of Gary Cooper from *High Noon* asks “whether the picture presented is a mirror or a window, whether what you see is your enemy or yourself. Which side are you on?” (1991, p. 126). “John McCain gets BarackRoll’d” asks the viewer which side they are on, that of humorlessness and the status quo or of technological savvy, playfulness, and change.

However, the text might be read in any number of ways depending upon which of the intertextual fragments of the video the viewer has seen and how her or she relates to those fragments. Hall’s theory of encoding and decoding leaves room for this asymmetry in decoding a text. One individual might decode the text in a way reads the text as one that is supportive of Barack Obama as a youthful candidate for change. Another individual might read in references to Obama’s irreverence and celebrity status and, therefore, to John McCain’s tried and true methodology. Yet another individual might miss the references to RickRolling or mistake the event as an actual occurrence.

Despite the fact that Hall’s model provides for messages to be decoded based on different meaning structures, he offers only three positions from which the television text can be decoded: (1) the dominant hegemonic position, (2) the negotiated code (a mixture of adaptive and dominant readings), or (3) the oppositional code (understanding the dominant code and resisting it) (Hall p. 171-173). These interpretive levels allow for a viewer who does not read the encoded meanings, or who reads them but interprets them as something other than the intended meaning. However, it does not lend itself directly to the interpretation of the multiplicity of “personifications” of viewers/decoders and the multifaceted media experiences an individual can have online. While the theory of encoding/decoding is valuable for looking at new media, the distinct decoding positions limit the discussion of YouTube texts. As a result of the vast amounts of information available online, those who use the Internet have an increasingly heterogeneous experience online. While there are viral videos that many or even most Internet users see, the wider socio-cultural and political structures that any two Internet users draw from may be vastly different. The increased access to information and rate of informational change shines a light upon some lack of subtlety in Hall’s model that may not be visible or problematic in the context of traditional media. Maintaining the pieces of Hall’s theory that are helpful to the analysis once it is expanded into a many-to-many model, namely the idea of encoding and decoding data within a medium, other theories that problematize the distinction between author, audience, and text offer more subtlety to the analysis of a YouTube text.

Drawing upon another analysis of television media, John Fiske’s work *Moments of Television: Neither the Text Nor the Audience*, opens up the understanding of author, text and receiver, broadening the position of viewer/decoder of a text in a way that is more appropriate for the understanding of YouTube texts. Fiske suggests that media studies of television often creates an over simplified and artificial distinction between the text and the audience. This division between text and audience misses the complex authorial activities that a television viewer engages in while watching a television show. For Fiske the text is not independent of the audience, instead it is at least partially determined by the audience. Rather than discussing the text as something that is encoded with meaning upon its creation and then simply decoded by the audience upon its consumption in hegemonic, negotiated or oppositional ways, Fiske suggests that the audience plays an authorial role in the production of the television text. He posits that through his or her own interpretation of the text the viewer attributes meaning to the text that may be dramatically different from the encoded meanings. Fiske’s understanding of the ways in which viewers read meaning into television creates a moment in which the decoder of a text is
YouTube and the 2008 Election Cycle in the US

simultaneously the viewer and author of the text, dissolving the categories of audience and text. He suggests that television viewers author the texts they watch by changing the storylines, situations, and symbolism in such a way as to make them more meaningful. Fiske posits that individuals are not content simply to consume the stories distributed to them but that they also need to own them, to author them. He is interested in how people “turn the products of the industry into their popular culture” (p. 544). Drawing upon the work of Michel de Certeau, he suggests that people claim what is provided for them by mass media through acts of evasion, appropriation, and alteration.

Arguably, people have always acted to subvert the systems within which they function through appropriation and alteration. What is different in the case of new media is that new media tools, such as YouTube, make acts of story appropriation and alteration tangible and distributable. Fiske argues that the television audience was already deeply connected to the authorship of the television text. The tools available through new media support Fiske’s assertion; these media answer the call for an audience to have the ability to tangibly author and re-author stories—and then to distribute them. New media act as venues for the constant and collective reinterpretation of meaning structures that are displayed within mass media. Through YouTube, and other media like it, contemporary users of the site are saying that they are not content to just hear stories and passively accept them; they are saying that they have always made their own meanings—and now they want to broadcast them.

Fiske’s explanation of the meaning making process is clearly applicable to YouTube, where we see this process made tangible now that individuals have the tools to easily and tangibly re-author storylines in a way that can then be disseminated within the same medium. In the case of “John McCain gets BarackRoll’d” the author, Hugh Atkin, made use of a series of texts to respond to the texts of the Republican National Convention and the campaign. Taking the context of the convention, Atkin authors a new scenario for the convention. On his blog he explains: “after McCain delivered his acceptance speech in front of an alternately green and blue screen, it was too good an opportunity to pass up….It would be kinda awesome if John McCain does get BarackRoll'd at some point before the end of the campaign...” Atkin saw a moment and a scene that he would like to see played out: McCain gets BarkacRoll’d at the convention, and he created that event. Not only did he imagine it might happen, but he created documentation that shows it happening. Although he goes on to explain that the footage is not of a real event, the video is introduced on his blog as though it happened. The title says: “This seemed to get cut from the coverage of John McCain's acceptance speech.” Atkins re-authored and re-scripted a historical moment, and then he broadcast his re-scripted history. Through the use of new media tools, he took what would have been a “wouldn’t it be funny if…” joke scenario, and created the event, broadcasting it 3.2 million times on YouTube (and still counting).

New Media, Meaning, and Community

In their introduction to Democracy and New Media, Thorburn and Jenkins, discuss the evolution of the role of new media in national politics. They suggest that there will be no decisive moment in which the power of new media alters American politics in the ways of previous traditional media, such as radio and television. This is in keeping with the nature of new media as a slippery definition; many Americans may not notice the slow creeping of new media into their daily lives. After all, they still read the New York Times or the New York Post, watch
CNN or Fox News, they just do so on their laptops, iPhones, and blackberries. The cultural changes associated with constant access to information anytime and anywhere may not always seem that apparent, but the devices of modern life change the culture of travel, connection, and communication, to name a few.

These cultural changes Thorburn and Jenkins suggest, are important steps on the way to political changes. They say, “the effects some have ascribed to networked computing’s democratic impulses are likely to appear first not in electoral politics, but in cultural forms: in a changed sense of community, for example, or in a citizenry less dependent on official voices of expertise and authority” (p. 2).

Looking at the ways in which communities and culture are created and how new media like YouTube effects community and culture becomes an essential piece in understanding the long-term effects YouTube might have on politics and our society. If new media objects like YouTube videos can be understood as cultural artifacts that citizens can easily encode and distribute, what are the implications of this new affordance on culture and communities? Indeed, how do the artifacts themselves affect community? Looking at mass media and advertising use of cultural signs offers some insight into how the production and reproduction of, to use Stuart Hall’s terms, “meaningful discourse” contribute to the “wider socio-cultural and political structure.”

Semiotics is built upon the idea that “human intellectual and social life is based on the production, use, and exchange of signs” (Danesi p. 28). The “production, use and exchange of signs” is what allows communities—imagined or otherwise—to form, the extension of the ability to exchange those signs through technology results in the formation of Anderson’s imagined communities. Media semiotics concerns itself with the ways in which mass media utilize and recreate familiar signs in order to produce meaningful imaginaries for their audiences. Marcel Danesi, in his Understanding Media Semiotics, offers Superman as an illustration of how a familiar sign, that of the mythic hero, can be recycled and retooled in such a way as to remain culturally recognizable and, at the same time, fresh and relevant. He says, “Heros are character abstractions, in short, who embody lofty human ideals for all to admire—truth, honesty, justice, fairness, moral strength, and so. Modern-day audiences feel this intuitively, as did the ancient ones…” (p. 34). Danesi suggests that our ability to understand signs, such as Superman, comes from our ability to read connoted meanings, or culturally significant meanings that have “cultural history behind them” (p. 34). By drawing upon familiar story lines, character roles, and other culturally recognizable signs, mass media can tap into relatable symbolism and, thus, into community. In other words, mass media utilize technology to distribute symbols across large geographic distances. The symbols that are distributed create a commonality upon which an imagined community can form. These common symbols serve as culturally significant symbols, or “meaningful discourse,” because they serve as a mediator for a community and, thus, for a culture.

Through his investigation into nations and nationalism, Benedict Anderson coined the term imagined community to refer to communities, such as nations, that exist only as a result of an imaginary that ties them together. Rather than being built, like smaller communities, around a reasonable expectation of interaction, nations are constructed around shared symbolism. Anderson argues that such communities are imagined because the members “will never know most of their fellow-members, meet them or ever hear of them, yet in the mind of each lives the image of their communion” (p. 6). Nations, and other imagined communities, are social
constructions and exist only because the members of the community perceive the group and see themselves as a part of it. Every member of the community holds in their minds an image of what it means to be a part of that community; this imaginary is built on common symbolism, such as ideographs, morals, stories, and/or information. The creation of the community relies on the existence of commonality in order to provide a foundation upon which people can build a community together. These communities are distinguished “by the style in which they are imagined” (pg. 6).

According to Anderson, print technology, map-making, and museums, to name a few examples, help in the establishment of communities, like nations, that need a constructed sense of commonality in order to envision themselves. Museums, maps, newspapers and the like created a means for individuals in different physical locations to access the same information and the same vision of their community. By having access to the same information across large distances individuals with disparate lives and experiences could establish commonality with others. This created a sense of a community built on a technology of information communication. The people who access this shared information build meaning around that information and—despite not physically interacting with the members of their imagined community—are able to construct a sense of a continuous community for themselves. This continuity becomes the basis of a political community within which decisions for the whole are made on the basis of the individuals that make it up and their vision of the goals, needs, and characteristics of the community.

It is important to note here that other aspects of Anderson’s theory of imagined community touch upon colonialism and the ways in which nationalism not only permits, or even encourages, the domination of other peoples. While this aspect of his work is insightful, it is not within the scope of this analysis. This analysis is primarily concerned with Anderson’s suggestion that technologies provide new ways of producing and distributing the concepts that help to produce an idea of a community. With the acknowledgment that the envisioning of an imagined community is not always the privilege of those who are subject to it, this analysis draws upon Anderson’s theory that the imaginary constructed by every member of a community is spurred by similar information, experiences, and locations, or, in other words, common signs.

Conclusion

People, as Fiske says, “turn the products of the industry into their popular culture” (p. 544) because they desire to connect with, indeed, to create and share culturally significant signs. The human desire to create and disseminate individual texts is a desire for individuality; however, it is also a desire to connect to culture through actively engaging and re-authoring culturally significant signs. What makes the individual creation of such texts particularly interesting is their affect on the ways in which community can be envisioned.

The technological affordances granted by tools such as YouTube endow users with the ability to engage cultural signs and use them to tangibly explore and display the ways in which they connect to their culture. Arguably YouTube videos are not only instances of individual expression for the sake of itself, rather they are also cultural artifacts created from cultural signs. In much the same ways as newspapers and other print technology allowed for the creation of communities beyond the reasonable expectation of personal interaction, new media, like YouTube, allows users to extend their cultural reach and to establish and engage with other new
imagined communities. However, unlike print technology, new media allows community members to both receive—or decode—and transmit—or encode—meaningful cultural messages. Thus new media, like YouTube, create communities that are imagined because members cannot interact with most fellow-members; however, these communities are flexible and in continuous renegotiation because the imaginaries of the individuals who make up the community are constantly being rebroadcast in tangible expressive forms. As a result, the demarcation of the community is very difficult to establish.

The video “John McCain Gets BarackRoll’d” makes use of a series of symbols that are culturally significant to a number of communities: Americans, YouTube users, political satirists, those who Rickroll, etc. Atkin utilizes symbols from a series of communities, those that have been broadcast to him in mainstream media, as well as those symbols that have been broadcast via many-to-many media such as YouTube, and engages them to construct a complex text that constitutes another culturally significant sign or “meaningful discourse.” His video, along with being entertaining, is a statement on the current political environment, on the candidates as individuals, on the power of viral videos. His video is not only about self-expression, it is about collective interpretation of a cultural moment. While his favor of Barack Obama is public knowledge, the video is not only significant in reference to his political opinion; it is also significant as a cultural artifact that is representative and meaningful within several communities.

The recycling and re-encoding of cultural symbols is nothing new. What is new is the recycling and re-encoding of cultural symbols by those who were formerly designated the decoders of cultural symbols. Both of these instances of symbol use—that of the traditional encoders and the traditional decoders—results from the same desire: the search for a sense of community and shared meaning. The slippage between the roles of “reader” and “author” results in many more points of cultural creation and, through technology, imagined community building.

New media, such as YouTube, rather than providing only a venue for individual expression and meaning making, works as a tool to help people better engage and re-create existing cultural signs and meanings in order to connect to other individuals. Humans are constantly in search of the knowledge that we are individual, but not alone in that individuality; we crave community acceptance as well as the sense of powerful individualism. The age of “John McCain Gets BarackRoll’d” is one that contains examples of a powerful cultural symbols resulting from many-to-many production. What YouTube, and other new media show us, is that people want to broadcast themselves.

Broadcasting implies receipt of a message; the desire to broadcast oneself is synonymous with the desire to feel connected, to know that the meaningful symbols encoded into a YouTube video are grasped by others out there. That is the desire to touch a common ground, to create community; that is not “depthlessness.” It is the opposite; it is connectedness. This connectedness may be shallow, but it is connectedness nonetheless.
References


The proliferation of online campaign content has brought an end to an era of broadcast media dominance over US national politics; and has resulted in the drastic reconstruction of the traditional fundraising machinations of American politics. Since the mid-1990s, there have been growing discussions on Internet activism and how new media has impacted participatory democracy and social justice in the United States. The increased usage of the Internet in political campaigning has also impacted some of the foundational ways that politics has historically been conducted in the United States. This paper analyzes a framework posited by Andrew Chadwick which conceptualizes the ways in e-democracy is transformative for political engagement. Further, this paper argues that during the 2008 Presidential campaign president-elect Barack Obama attained unprecedented success through the utilization of the internet as a primary vehicle for his political campaign. Obama’s innovative approaches to US politicking have led to one of the most transformative eras in US political history and catapulted him to an overwhelming victory for President of the United States.

In 2004, Howard Dean’s campaign during the Democratic primaries marked the first time a candidate successfully funded a campaign by utilizing the internet for fund-raising and partisan politicking. Four years later, the 2008 presidential election season was further redefined by a new dynamic of interaction between political candidates and the electorate. Led by charismatic candidate presidential candidate Barack Obama a new culture of US voters became empowered by the plethora of political punditry available online. The result was a presidential election battled almost exclusively on the internet, with the candidates immersing themselves in a frenzied campaigning of US citizens.

In order to understand the effects of internet on the US political environment, e-democracy must first be conceptualized. Andrew Chadwick, author of the “Handbook of Internet Politics”, conceptualized a framework for e-democracy which utilized a technology-centered approach to elucidate the broader implications of political behavior related to voter participation. Chadwick’s framework conceptualizes e-democracy in the Web 2.0 environment as being comprised of seven key components. (Chadwick, 2008) Chadwick’s seven themes are:

1. the internet as a platform for political discourse
2. the collective intelligence emergent from political web
3. the importance of data over particular software and hardware applications
4. perpetual experimentalism in the public domain
5. the creation of small scale forms of political engagement through consumerism
6. the propagation of political content over multiple applications
7. rich user experiences on political websites
Consider research conducted by the Pew Research Center for the People and the Press which found that throughout during the spring of the 2008 US presidential campaign season, a full 46 percent of all Americans used the Internet, e-mail, or phone text messaging for political purposes. (Rainie, et al., 2008) That was the percentage of those who received news and information about the campaign, used e-mail to discuss campaign matters, and used phone texting for the same purpose. (Rainie, et al., 2008)

Richard Rogers author of *Information Politics on the Web* argues the internet is a disruptive technology in which official versions of reality and policies to shape it by government are routinely shattered by citizen journalists and activists. (Rogers, 2004) It is because of this capacity for disrupting the status quo and undermining the elite that is the key to re-democratizing American politics and media because it changes the nature of political participation and removes the barriers of information professionalization. Political information was the province of professional journalists, pollsters, and commentators, who themselves were the property of giant media corporations. The internet as forum for political engagement has demonstrably changed this reality in the United States.

The internet has reshaped notions of American political identity and community and has established the internet as a legitimate medium of the market place of ideas. The proliferation of online campaign content has also brought an end to an era of broadcast media dominance over US national politics; and has resulted in the drastic reconstruction of the traditional fundraising machinations of American politics.

The Obamachine actualized the seven concepts described by Andrew Chadwick as being important for e-democracy. The Obamachine first and foremost established the internet as its political platform. Then through careful tracking and analysis of the “collective intelligence” of the electorate and the ways in which they utilized the internet the Obamachine was able to specifically tailor their campaign messages to precisely target potential voters. The Obamachine revolutionized the key elements of a modern US political campaign through the combination of multi-platforms of online communication with traditional campaign methods. His campaign was not concerned with any one particular hardware or software web app to deliver its campaign messages and often experimented with a variety of online platforms. The multiplatform success of Obama’s campaign was evidenced by the number of innovations he initiated to engage potential voters, “MyBarackObama.com, VoteforChange.com, YouTube, Wikipedia, emails, text messages” all of which were web apps that were previously untested for the purpose of political campaigning. Through this propagation of political content the Obamachine provided rich online user experiences for their potential voters and stimulated electoral participation from a pool of unregistered voters. Lastly, the Obamachine’s fund-raising strategies politically engaged small money donors (previously considered unimportant to a political campaign) and produced a money-making juggernaut which netted well-over 700 million US dollars. (OpenSecerets.org, 2009)

Senator Barack Obama’s presidential campaign successfully demonstrated that the internet can enable Americans to have more creative involvement with the political process to the benefit of their overall political engagement.
Exploring YouTube, Civic Engagement and Perceptions About the Role of the Internet in Civic Engagement Among College Students

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This study examines self-reports of college students’ perceived civic engagement and use of YouTube.com for socio-political reasons. For communication scholars, civic engagement is concerned with the relationship between communication and community life (Shah, McLeod, & Yoon, 2001). In recent years, several studies (e.g., Shat et al., 2005; Shah, McLeod et al., 2001; Moy et al., 2005) have shown that certain internet activities are positively related to civic engagement. Drawing on this research, the present study investigated both consumption and creation of socio-political YouTube content:

RQ1: How is consumption of YouTube media for socio-political reasons associated with civic engagement?
RQ2: How is creation of YouTube media for socio-political reasons associated with civic engagement?
RQ3: How is consumption of YouTube media for socio-political reasons associated with perceptions about the role of the internet in civic engagement?
RQ4: How is creation of YouTube media for socio-political reasons associated with perceptions about the role of the internet in civic engagement?

Method

Because this study concerns young adults’ uses of YouTube.com, students from undergraduate classes at a large Northwestern state university were recruited to participate in an online survey. The use of a convenience sample in this study was a limitation. Further, the demographics of the sample are unrepresentative of the college student population. Because of these limitations the results of this study cannot be generalized to the population of interest: college students in the United States.

YouTube media measures assessed (1) use of YouTube.com for political and social issues and (2) creation of socio-political YouTube media. Civic engagement was measured via self-reports of various civic activities developed from previous research. Perceptions of the role of the internet in civic engagement were also measured. As this study was exploratory, many of the measures used had to be built. The validity of these measures have not been previously tested. Despite these limitations, this study offers an important exploratory look into socio-political YouTube use. Cross-tabs were used to assess RQ1 and RQ2. Correlation was used to assess RQ3 and RQ4.
Discussion of Results

Overall, two different profiles of socio-political YouTube use emerged. Consumers of YouTube socio-political media reported that they were no more civically engaged than non-consumers. However, those who created socio-political YouTube media reported being significantly more civically engaged than non-creators.

Further, this study shows a difference between self-report of these two uses of YouTube for socio-political purposes and opinions about the role of the internet in civic engagement. Consumption was overall positively related to the perception that the internet is a legitimate location for civic engagement. Unlike consumption, creation was not significantly related to holding the perception that the internet is a legitimate location for civic engagement. Creators were more involved in their community than non-creators and their higher level of engagement in the community corresponded to not feeling as strongly about the importance of engaging the internet community.

When considered together, findings from this study indicate those who partake in the more passive consumption behavior may envisage themselves as civically engaged in part due to their online engagement in a Web 2.0 participatory network. However, their seeking out of socio-political content online does not spill over into action as they do not hold the perception that it is necessary that they go beyond their internet activities and take community action.

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“I’m In!”: Hillary Clinton’s 2008 Democratic Primary Campaign on YouTube

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In January of 2007, when New York Senator Hillary Clinton announced her candidacy for President, she said she was “In it to win it!”1 Clinton was far from being the first female candidate to seek the White House, but she was one of the first female candidates to voice a very real expectation that she could win. For a while, in 2007, it seemed like being elected was a very real possibility. In the Democratic Primary, Clinton received 17,267,658 votes, only 166,000 votes less than the victor. This was more votes than any candidate had received in any primary prior to 2008. Throughout the Democratic Primary, the Clinton campaign used YouTube as a tool to get the candidate’s voice out there. The Clinton campaign posted 353 videos over an 18-month period and continued to post videos after she lost the primary. This project explores the rhetorical strategies of six of Clinton’s videos using Mikhail Bakhtin’s concept of speech genres to understand some of the ways the candidate made use of this technology.

The Clinton campaign videos reflect the campaign’s many attempt to find the appropriate type of speech for online communication. Appropriateness is a difficult concept because, as Bakhtin pointed out in Speech Genres and Other Late Essays (1986, p. 60), “each utterance is individual, of course, but each sphere in which language is used develops its own relatively stable types of these utterances. These we may call speech genres.” The deployment of various genres of speech requires a set of cultural knowledge about the form and style of speech within a communication sphere. The Clinton campaign’s stylistic choices reflect their cultural knowledge of digital technology as a communication sphere. Early stylistic choices by the campaign show a miscalculation of the technology and the culture of the space; it was not until late in the process that the campaign found an appropriate rhetorical style.

The first stylistic choice addressed in this project is the campaign as dialogue approach. This approach can be seen in two of the campaign’s early videos: “I’m In,” posted to YouTube 22 January 2007 and “Let the Conversation Begin,” posted to YouTube 13 February 2007. In these two videos, Clinton talks about her Presidential campaign as an ongoing dialogue and stresses the campaign videos as a means of interacting with voters. These videos encounter three issues that ultimately make the stylistic choice unsuccessful in the online environment. First, the videos demonstrate a conflict between the primary and secondary speech genre. Primary speech genres are simple genres that are picked up through socialization to various types of discourse; secondary speech genres are more complex types of speech such as a novel or scientific discourse. Secondary speech genres often become the setting for primary genres. In the case of the Clinton campaign videos, the secondary genre of political video, which has its own developed set of cultural expectations, becomes a setting for the primary speech genre of an intimate dialogue. Unfortunately, the nature of video as asynchronous communication causes the primary genre of dialogue to lose its authenticity. The second problem the campaign encounters is the violation of the cultural norms of the technology being used. Individuals’ previous experiences with interactive sessions online gave them a set of expectations for free and open communication.

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1 This study is part of a larger research project funded by the Rensselaer Humanities, Arts, & Social Sciences Fellowship Program.
communication that the campaign violated when filtering the interactions taking place. Finally, Clinton’s speaking style in the videos seems out of place for the communication sphere depicted in the videos. The candidate seems uncomfortable with the conversational style of the videos, and she falls back on using the forensic style that has been comfortable for her in the past. This causes Clinton’s attempt at dialogue to look more like a debate.

The second stylistic choice addressed in this project was parody. This choice can be seen in two of Clinton’s later campaign videos: “Sopranos Parody,” posted to YouTube 19 June 2007, and “Presents,” posted to YouTube 19 December 2007. In these videos, Clinton used humor and strategic ambiguity to address two of the issues plaguing the campaign: her relationship with her husband, former President Bill Clinton, and the ongoing issue of Clinton’s “inability” to conform to “appropriate gender roles.” The strategic ambiguity in these texts is derived from the double-voiced discourse present in each video. When Bakhtin discussed the utterance, he noted the presence of several cultural forces acting on an utterance at any one time. Parody is the result of two active voices within a double-voiced text; the simultaneous and conflicting nature of the voices leads to what Bakhtin calls the hidden polemic. The Clinton “Sopranos” video shows the candidate parodying a popular television show about a mob family. The video offers layers of commentary on the candidate’s relationship to her husband and her role as powerful “Washington Insider.” The “Presents” video shows the candidate parodying a Martha Stewart type character who is wrapping holiday presents for the nation. This video comments on the relationship between Clinton’s roles as homemaker and policymaker. The strategic ambiguity of these texts allows the candidate to comment on these issues, while encouraging viewers to construct their own interpretations of the texts.

The last two videos reviewed in this study can be loosely grouped together as what will be called documentary style videos. These videos are interesting because, while they were not the most popular videos Clinton released during her campaign, they demonstrate the candidate’s attempt to target specific voting groups. The two videos discussed in this section were: “Nurse for a Day,” posted to YouTube 16 August 2007 and “Ask Hillary,” posted to YouTube 10 January 2008. These documentary style videos are some of the strongest in Clinton’s campaign because they make use of two of the strongest aspects of the candidate’s speaking style. The videos depict Clinton speaking in a forensic style, interspersed with clips of supporters talking about their personal relationships to the candidate and the campaign. Traditionally, this speaking style has made Clinton look too severe. However, when the forensic style is juxtaposed with images of individuals offering personal testimony, Clinton’s policies seem more accessible. The combination of elements of feminine style and forensic style allows the candidate to access feminine social norms while still speaking in a form that is considered presidential.

When Clinton entered the primary race, and said she was “In it to win it,” that seemed a distinct possibility. The advantage Clinton held early in the campaign was the impression that she was the inevitable winner. This impression turned into a problem later in the campaign when it appeared that she believed she was entitled to win. Many individuals began to view Clinton as part of the Washington establishment, and the focus of the Democratic Party was on moving away from the establishment. Although Clinton did not win the election, her rhetorical missteps and later adaptations to YouTube as a communication sphere offers insight to future politicians attempting to understand the culture of this space. Overall, the nearly 18 million votes Clinton received demonstrate the incredible progress female candidates have made, and her failures may offer valuable information for the women who follow in her footsteps.
Every election cycle there is a struggle for politicians to reach politically low involved citizens. Yet, for years, politicians have been optimistic about the ability to reach more potential voters with the rise of the Internet as an information tool, including those who are not highly engaged in the political process. Last year, all candidates intended to expose all citizens, but young adults in particular, to campaign videos posted on YouTube.

There is no clear picture yet which political audiences are most attracted by YouTube and for what reasons they access the site. The objective of this study is to examine whether the level of election interest explains why some young adults were accessing election videos on YouTube more often than others. Many variables are involved in whether individuals adopt a mass medium, for instance the World Wide Web, and which particular Internet sites or specific sections of those sites are visited to acquire information. The 2008 U.S. presidential election campaign offered an opportunity to study how young adults used YouTube based on their political involvement.

A survey of 224 students at a Midwestern college demonstrates that by putting election clips on YouTube a large majority of young adults in college can be reached. Overall, most participants watched at least one YouTube video related to the 2008 presidential election. Still, 28 students, or 12.5 percent, reported that they had not watched any of those videos.

Participants reported the use of YouTube on a four-point scale. Subsequently, based on their level of political involvement, the students were ranked in four groups. YouTube use was analyzed in a one-way between subjects analysis of variance based on levels of involvement in the 2008 U.S. presidential election cycle. The results showed a significant effect for political involvement, $F(3,219) = 10.093, p < .001$, $\eta^2 = .12$. Young adults with the highest level of political involvement ($M = 3.33, SD = .886$) were more likely to watch political videos than the low involvement group ($M = 2.47, SD = .863$).

Similar results were obtained for the questions whether students actively searched for election clips on YouTube and whether they watched clips on blogs and news media Web sites. This was also the case for watching clips from broadcast news shows and fragments of entertainment programs dedicated to the elections and related political topics.

Importantly, there was no statistical difference between any of the involvement groups for watching campaign advertisements. This was the case for official ads authorized by either John McCain or Barack Obama as well as for advertisements from interest groups pertaining to any of the two presidential election candidates or other social causes.
Overall, the results present a picture that a highly involved audience of young adults watched more YouTube videos about issues related to the 2008 presidential election than lower involved students. In most of the comparisons the differences between the highest and the lowest group are rather large. On the other hand, there is not much difference between the groups other than the highest involvement unit. In other words, the high involvement group is driving the main effects found for election involvement on YouTube use. Although election campaign teams fruitfully can use YouTube to reach voters occasionally, they still need to explore how to attract larger viewership for online advertisements. Future research should determine why young adults are less interested in campaign ads than other election content.
YouTube Politics: YouChoose and Leadership Rhetoric During the 2008 Election

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During the election cycle of 2008, YouTube launched YouChoose, a viral forum designed for each candidate to share his/her respective messages and platforms with potential voters. In the somewhat rare extant literature on YouTube, initial portrayals of its political influence appear to be positive; for example, Tan (2007) reported that 70% of voters believed that YouTube could influence the results of the 2008 election. Due to this media- and technology-saturated political atmosphere of the new millennium, an analysis of the political dimensions of YouTube is warranted.

The intent of the present study was to utilize YouTube to discover the common characteristics of each presidential candidate’s choices of leadership rhetoric as expressed through his or her video clips posted on YouChoose. The findings that emerged were then critically analyzed to glean an understanding of the influence of YouTube upon these rhetorical choices. The following research questions guided the study:

RQ1: What common characteristics of leadership are expressed by the presidential candidates in their respective video clips on YouTube?

RQ2: Which leadership characteristics occur most frequently in these clips?

RQ3: What do these findings indicate about a) the format of each candidate’s video clips, b) the YouTube consumer who views these clips, and c) the medium of YouTube itself?

Method

Both qualitative and quantitative research methods were employed to examine the YouTube video clips from the sixteen candidates who competed in the 2008 presidential race. The introduction and farewell videos of each candidate were analyzed for leadership utterances. Categories were formed through a grounded theory approach, while frequencies of the leadership traits were discovered through a content analysis of the data. Intercoder reliability (Cohen’s kappa) for the categories was calculated at .90, and was thus considered acceptable for the study.

Results

The analyses revealed the following categories of sixteen leadership traits, by descending order of frequency: candidate as advocate for the people (39 mentions, 14% of total mentions); moral accountability (38, 14%); courage (35, 12%); unification (30, 11%); persistence (23, 8%); crisis management (20, 7%); change (15, 5%); hard work (13, 5%); diplomacy (12, 4%); foresight (11, 4%); experience (11, 4%); service (10, 4%); love of America (7, 2%); optimism (7, 2%); family (6, 2%); and hope (4, 1%). Overall, the video clips posted by the candidates appeared to be more character-driven than experience-driven.

Implications

These results confirm, in part, Benoit’s Functional Theory, which posits that each candidate’s discourse would focus on two topics: issues (policies) and character (Benoit et al., 2005). However, unlike Benoit’s (2003) finding that policies are more important to the voter than character, the present study suggests that candidates use more discourse about character than policy. This phenomenon may be due to the medium of YouTube facilitating the emergence of a new perception in politics: that of the postmodern constituency. On YouTube, “politics is no longer bound by the
traditional barriers of time and space” (Grove, 2008, p. 28). Nor is politics bound by barriers of convention: The short, amateur and sometimes controversial videos on the site defy more predictable and often censored traditional media. Additionally, they are viewed as self-contained and out of context by the audience. The length of the video clip on YouTube is one indication of the medium’s more fragmented approach to politics: Because the allowable time is scarce, the candidate needs to choose the most salient topics to his or her campaign to include in the clip, as well as grab the attention of the user. As *Time* magazine stated, “Web video is like a pop single: an attention-getting hook is important” (Poniewozik, 2006, p. 74). Consequently, the candidates may try to accommodate the postmodern constituency on its own terms; as of March 2008, Barack Obama’s campaign was posting two to three videos on YouTube every day, for example (Grove, 2008). While not every candidate may hold this perception, it is ubiquitous enough to influence his or her choice of message; the findings of the present study suggest that the candidate is mindful that utterances about character may resonate more with the YouTube audience than about policy.

The unfiltered nature of YouTube presents another implication; unlike television political broadcasts, YouTube contains no commentary by political pundits. This is significant in light of Steeper’s (1980) findings demonstrating the influence of political commentary on the public in shaping its attitudes following presidential debates. After viewing the videos on YouChoose, users may draw different conclusions about the candidates than they might have from watching the candidate solely on television. By virtue of its unfiltered dimension and absence of political commentary, YouTube could present a paradigm shift in future political ads and videos.

Finally, with the emergence of YouChoose, political candidates now find themselves as willing participants in YouTube politics, a ‘buffet-style’ variety of politics. When these candidates are placed next to each other in the same forum for equal consideration, this enables the casual voter—the postmodern constituent who may find appearance, likability, or the character of the candidate more appealing than that candidate’s basic policies—with a new political alternative from other media. This also allows for less of a commitment from the user than actively searching for each candidate’s official campaign Web site. Consequently, this new style of YouTube politics promotes passive voter engagement rather than active engagement. Were the findings from Lazersfeld et al.’s (1968) seminal study applied in this context, the user who visits the Web site of the candidate is likely already a supporter of that candidate; thus the medium only “reinforce[s] the partisan.” However, the user who visits YouChoose to compare candidates may still be undecided or indifferent. Perhaps, YouTube will reinforce the findings of Lazersfeld et al., and “activate…the indifferent…and convert…the doubtful” (p. 101).

References


The Use of Video in Candidates' Web Sites and E-Mail

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The Lesson of Video in Campaign E-mail:
To foster identity and mobilize

The new architecture of e-mail designed by the Barack Obama campaign basically changed political communication. This new era is not conceivable without video and web 2.0 applications. The Obama e-mail and in part, the Clinton e-mail implemented video as a visual strategy for fundraising and mobilization. In addition the Web 2.0 applications enable participants to respond interactively with various options. Thus voters have the chance to participate in campaign activities with just a mouse click.

The combination of video and donation forms as well as the involvement of volunteers through Web applications is impressive and unique. The use of video helps to evoke strong emotions that can lead to a donation or registration. The e-mail is much more personal if it contains a video presenting the candidate or volunteers talking in front of the camera beside the main context. Consequently the pictures can become narrative by expressing unity and connectivity and can enhance the common identity between supporters. Of course this kind of mobilization via e-mail could achieve tremendous success; only because it was accompanied by a personal, face-to-face communication.

Image building with Video

The visual strategies on Hillary-TV and Barack-TV led to two very different ways of image building. While Barack Obama was presented as powerful and heroic, Hillary Clinton was shown as a neighbor, a people’s person. Each way of creating the candidate’s image is committed to a special context of media coverage and polls. Barack Obama has been named “Rock star of American politics” in the press, and he can use his image as charismatic leader in an affirmative way without transmitting political content.

Hillary Clinton had to fight against her image as a cold person. With her video “The conversation begins in Iowa” she tried to change her public perception to that of a neighbor, who is warm and close. While Barack Obama fosters his image in an affirmative way, Hillary Clinton tries to alternate hers. At the end of March 2007 polls still reported that 47% of Americans perceived Hillary Clinton as a candidate with a cold personality. The purpose of these videos is not only to affect the candidate’s image, it is also to step outside the candidate’s Web site and the Web itself in order to reach media coverage in print media. YouTube is the first step on this trail, because placing a video on this video sharing platform means to place it in an environment outside the small circle of supporters visiting the candidate’s Web site. YouTube boosts the video’s chance to be noticed by a wider audience, particularly if it is a kind of provocative clip.
Summing up, video strategies of Hillary Clinton and Barack Obama differed in their strategic objective. In each case video was a useful tool to either change or emphasise the candidates’ image in the 2008 presidential campaign. The Internet and in particular, *YouTube* can prove to be tremendously effective to spread political information on the Web and beyond.²

² The Poster will document the second part of this analysis: *Image building with Video*