

**Does More Klout Lead to Victory?
Measuring Online Influence During the 2012 Election**

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THE IMPORTANCE OF ONLINE INFLUENCE

Political communication is, above all else, an effort by political elites to connect with and inform the public in order to motivate political activity. In other words, political communication aims to be as influential as possible. For campaigns, communication influence is generally measured in retrospect by counting votes on Election Day. However campaigns, and those who follow them closely, constantly strive to evaluate how effective their communication is, because the greatest level of influence during a campaign generally leads to the greatest number of votes. In the current era of online political communication, successful messaging is not merely broadcast to the masses; it is rebroadcast, forwarded, and personalized by Internet users and political supporters via social networking sites, Twitter, and blogs. While the online communication of campaigns has become more sophisticated, the methods used to evaluate it have been limited to basic methods, until recently.

Over the past few years several companies have designed methods to measure overall online influence including not only how many people receive messages through social networking sites, but how much their ideas are accepted, amplified, and forwarded by followers. Klout, one of the most widely used online influence measurement companies, offers a useful method of measuring overall online influence that potentially provides a more comprehensive and reliable measurement of online political communication effectiveness. This study is the first of which the authors are aware, which collects time series Klout data in order to measure, compare, and evaluate online influence of those running for national political office.

In this study we examine whether Klout may offer a more nuanced evaluation of the effectiveness of online campaign communication. Which campaigns are more successful than others in terms of their online influence? Does Klout serve as a useful proxy for other less

available data? How do changes in the course of a campaign alter how influential a campaign is? We use Klout data collected daily over a six-month period to provide preliminary conclusions to these questions. In the next section, we summarize the relevant literature regarding the influence of campaigns and their increased social media use. Next, we elaborate on Klout, why it was selected, and why it provides a useful tool to measure campaign communication and influence, followed by analysis of the Klout data for each of the leading presidential candidates over the first six months of 2012, including a comparison with other online influence measurement tools and traditional measures of campaign success such as public opinion polls. Finally, we offer some conclusions and plans for future research leading up to and following the 2012 election in November.

SCHOLARSHIP ABOUT THE INFLUENCE OF AND USE OF SOCIAL MEDIA BY CAMPAIGNS

At the heart of this study is the intention to understand political campaigns. Political campaigning literature has, at its core, always sought to answer one simple question – do campaigns matter, and if so, how do they? The determination to study influence of a specific type – in this case, of social media strategy and implementation – is simply an extension of this classic question. Thus we draw on theory-grounded understandings of campaign communication and influence in order to motivate our expectations of Klout scores as a potentially useful political metric.

While messaging and communication have played central roles in campaigning throughout American political history, researchers have questioned the effectiveness of campaign influence for decades. The effects of media and messaging by campaigns were

generally thought to be small after the widely supported book *The Effects of Mass Communication* concluded that media effects on public opinion were minimal (Klapper 1966). However, a seminal study published by McCombs and Shaw a dozen years later (McCombs and Shaw 1972) showed that the media does have substantial influence over the public in terms of agenda setting. This reinvigorated research on how campaigns try to use media to try to generate influence (McCombs and Shaw 1991). While there are a variety of findings about the degree to which media use by campaigns affect voters, studies over the past 15 years offer substantial evidence suggesting that campaigns do play a major role in shifting public opinion and voter choice, generally termed “campaign effects” (Iyengar and Simon 2000; Johnston and Brady 2006; Grabe and Bucy 2011). Much research has specifically highlighted the most effective strategies in presidential campaign communication (Owen 1991; Polsby et al. 2012; Jamieson 1996; Grabe and Bucy 2011). Moreover, presidential campaigns are by far the most covered, the most watched, and the most expensive campaigns in United States politics, making them particularly important to examine when considering campaign influence (Gulati, Just, and Crigler 2004).

While the existing literature generally supports the belief that the media use and communication strategies of campaigns do affect voters, the means to measure this influence remained largely ephemeral. However the data now available as a result of the internet provides the opportunity to measure the changes in communication tactics including the increasing use of social media by campaigns. Casual observers of political campaigns can see that political communication strategies employed by campaigns have become increasingly social over the past decade. In terms of research on the evolution and use of social media online by campaigns, Williams and Gulati have conducted several studies of website design and social networking use

by campaigns and have seen dramatic changes over the past few election cycles (Williams and Gulati 2007, 2009, 2009, 2010, 2010). In 2010, they evaluated how 836 Congressional campaigns used Facebook, Twitter, and YouTube, and noted both a high adoption rate and very fast diffusion rate over just a few election cycles. Facebook was launched in early 2004, with YouTube beginning a year later and Twitter emerging mid-2006. Facebook was first available to candidates during the 2006 campaign, and only 16% of Democrats and Republicans running for the House adopted a Facebook profile that year. By 2008 that number had spiked to 72%, and increased again to 82% in 2010 (Williams and Gulati 2011). The 2010 midterm election marked only the second election in which YouTube was available to Congressional candidates, with use again jumping from 28% in 2008 to 72% in 2010. Twitter is the youngest of the three sites, and although 2010 was the first election cycle in which it was available, nearly three-fourths (74%) of all House candidates adopted a Twitter account, even more than YouTube although it had been available during previous election cycles (Williams and Gulati 2011).

As expected, Senate campaigns, which are larger and better funded, innovated at a faster rate and used each of the social networking platforms to a higher degree than those running for the House. A striking 98% of Senate candidates had a Facebook account, 90% had a YouTube channel, and 94% opened a Twitter account in the first election where it was available (Epstein 2011). Moreover, we know that candidates are integrating social media use into their campaign strategies in new and innovative ways, not always aligning with more traditional campaign tools such as television advertisements (Bode, Lassen, Sayre, Kim, Shah, Fowler, Ridout, and Franz 2011). The 2012 Presidential candidates all utilized social networking extensively in their web presence, as reflected in the extensive media coverage of social media use in the 2012 election cycle, deeming 2012 the definitive “social media election” (see Yaverbaum 2012, Jacobs 2012,

Towns 2012, for just a few examples). It seems obvious that social networking tools have already become standard fare for campaigns and will likely be used by all serious candidates running in future elections. Today, campaigns have made the use of social networking the norm in their communications strategy.

Regardless of the increasingly social online presence of campaigns, the methods used to evaluate political online influence of these strategies have been limited to fairly rudimentary methods. During the 2008 election a comparison of the number of Facebook friends of Obama and McCain was used to show the dominance of the Obama campaign in its use of social networking (Owyang 2008). By 2010, the number of Twitter followers became an important measuring stick of the online reach and was used to show how GOP candidates used the newest online tool to help secure major electoral victories (Calabrese 2010). Yet these numerical measurements merely quantify how many people may see a message sent by a campaign, rather than clarify what types of messages are most effective or how campaign communication did or did not precipitate political attitudes or action.

METHODOLOGY

WHY KLOUT?

Online influence is big business today with a growing number of companies offering services designed to measure, increase, and effectively utilize one's online social influence. While none of these are explicitly political in design, they can be used to evaluate and potentially boost political influence online, just as they could with the influence of an individual or business. Among these various companies, Klout is arguably the most sophisticated and by far the most

popular.¹ Klout was founded in 2008 to help online users measure and leverage their influence, or the ability to drive action by using online tools. Klout provides users with a Klout score, a number from 1-100 that represents the aggregation of multiple pieces of data, or signals, about a person's social network activity. These signals include any online action taken in response to web content that is created or shared (Klout 2012). A few examples include likes on Facebook, retweets on Twitter, or comments that web users receive on any content they create or share on leading social networking sites. Klout computes the score by applying a score model, or algorithm to these signals (Klout 2012). On August 15th, 2012 Klout expanded their model to incorporate information from over 400 signals, derived from seven different social sites including Facebook, Twitter, Google +, LinkedIn, foursquare, Wikipedia, and Klout itself. It is important to note that the data used in this study were generated using the previous algorithm, which utilized just over 100 signals from five different sites and did not include information from Klout or Wikipedia.²

Klout is making strides regarding the transparency of their methodology, but to this date has not released the details of their algorithm, which is a concern for those who place a large amount of faith in its accuracy. For the purposes of this study, the specifics of the model are less important than whether the Klout score provides a stronger measurement of online influence than other more rudimentary forms of online measurement and whether it can be used to gauge the effectiveness of online political communication both during and after political campaigns. A few benchmarks are very helpful in providing context for the Klout scores used in this research. First, the average Klout score is around 20, with higher scores becoming increasingly difficult to

¹ As of August 16, 2012, Klout.com ranked as the 422nd most popular internet site in America, and 800th globally.

² We are continuing to track Klout scores and will have updated data following the election based on the new Klout model. All data presented in this paper and all details of Klout scores presented in this paper are based on the earlier score model, unless otherwise noted.

attain.³ Therefore there are more scores in the 30s than there are in the 50s and it is exceptionally rare to have a score nearing the maximum of 100. In addition, the score is based on a rolling 90-day window of activity weighted toward recent activity. Thus a day or two of inactivity should not dramatically hurt a score, but a few posts that motivated tremendous activity can boost it quickly. Finally, the Klout score takes into account how much content a person creates compared to the amount of engagement they generate. In other words, posting less often but generating consistent activity amongst one's network and beyond is more influential than a high volume of posts with little action generated.

DATA COLLECTION

We chose to consider a timeline beginning on January 1st, and ending June 30th, 2012. This gives us roughly 6 months of data to examine, and includes all of the major presidential primary contests, beginning January 3rd with the Iowa caucus, and ending with the June 5th contest in New Jersey, by which time Governor Romney had effectively won the Republican nomination for president.

In order to obtain our data, we gained access to Klout's API (Application Programming Interface), which allows us the ability to retrieve data directly from Klout as it updates on a daily basis. To do so we established a Google Doc which utilized a formula calling Klout's API, and updated it on a daily basis. We have full data for each day with two exceptions – January 20th and February 18th. We have no reason to believe there is anything systematically different about those particular instances of missing data. We chose to include all major candidates for the presidency in 2012 in our data collection, and include them in our analysis to the extent we are able, though sometimes missing data in other data sources prevents us from doing so. We

³ According to the newer expanded algorithm the average score is now 40, though it remains increasingly difficult to increase the score the higher it is.

collected for both personal and campaign accounts where appropriate. In this analysis, we use the official campaign accounts in the cases where candidates have multiple accounts. Generally speaking, candidate account Klout scores are somewhat lower than personal account scores. It should be noted that we collected data for all major candidates for office at the levels of House of Representatives, Senate, and President for 2012, though our analysis and discussion in this project is limited only to the candidates for president.

Other data are obtained from four major sources. First, we obtained information on presumed influence within individual social media platforms by detailing the number of followers each candidate has on Twitter and the number of likes he or she has on Facebook.⁴ Additionally we obtained data from an alternative measure of social media influence, called Peer Index. Each of these was obtained at the end of the collection period, in August of 2012. Finally, we chronicled polling data from Pollster.com, a leader in aggregation of polls. We include at various times data from both individual state primaries and caucuses, as well as updated national poll averages by candidate by day to the extent that they are available throughout our period of data collection.⁵

ANALYSIS

First, we thought it useful to consider descriptively the trajectory of the Klout scores of each candidate. Klout scores by day are shown by candidate in Figure 1 below. Generally speaking, Klout scores increase monotonically for two candidates – President Barack Obama and Governor Mitt Romney. This is interesting considering that although President Obama was the clear nominee for the democratic nomination from the beginning of our timeline, Governor

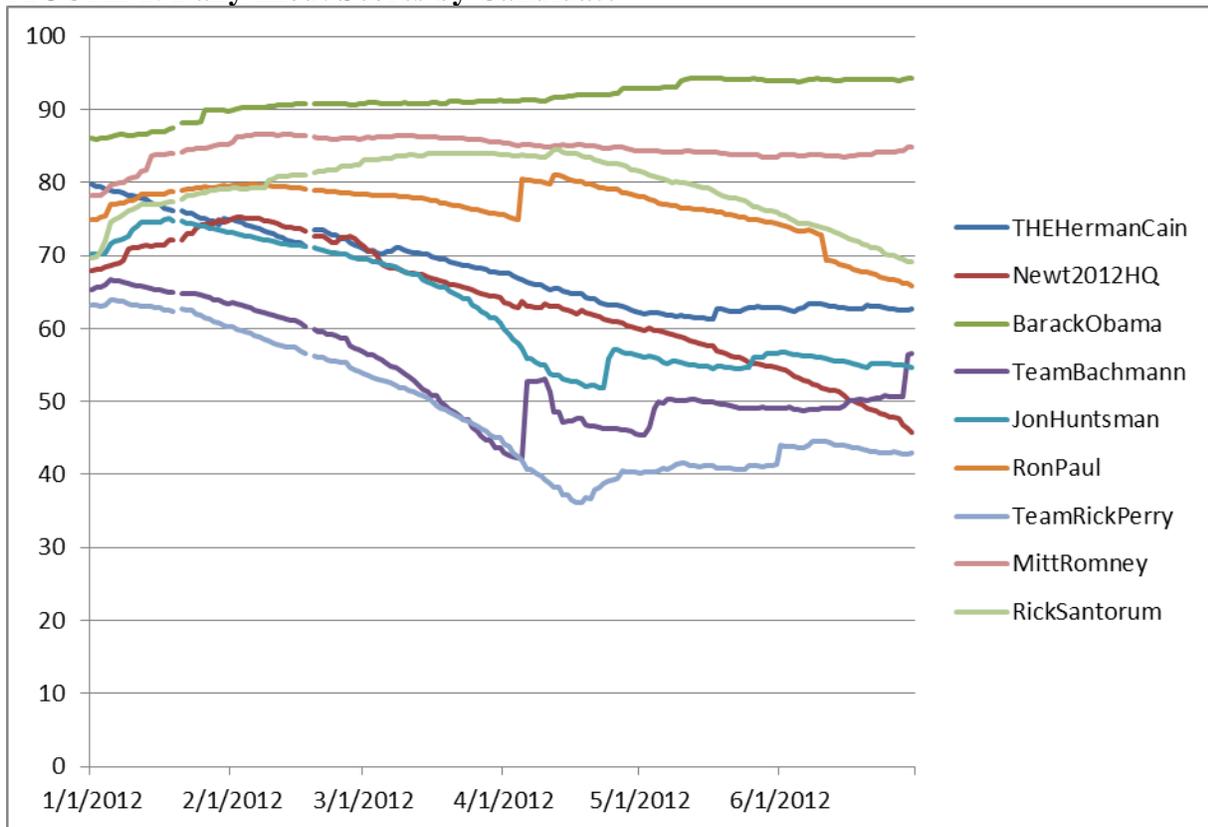
⁴ We considered alternative measures for Facebook – including fans and friends – but at this point “likes” seemed the most relevant measure.

⁵ All Pollster data are publicly available from <http://elections.huffingtonpost.com/pollster/2012-general-election-romney-vs-obama>.

Romney was in serious dispute at various points throughout the primary season. However, his social media influence as captured by his Klout score does not seem to have suffered even when his vote margins did.

Other candidates followed different paths. As a general rule, once they had dropped out of the official running, their Klout scores also decreased. For some candidates, including Jon Huntsman, Rick Perry, and Michelle Bachmann, a rebound in Klout score was experienced eventually after the low of dropping out. Newt Gingrich experienced a significant decrease throughout the primary period, prior to when he officially ended his campaign but after his poll numbers were no longer suggesting he was a viable candidate.

FIGURE 1: Daily Klout Scores by Candidate



Interestingly, despite the extensive shifts in polling leaders throughout the primary period, relative Klout scores remain fairly stable between candidates throughout the period in question. While we suspect the lack of volatility in the Klout scores is a result of the rolling 90-day window that Klout uses, it is still notable that Klout scores may serve as a more reliable indicator of long term viability of candidates than polling, which jumps around mightily. Throughout our collection, President Obama consistently led in Klout score over all Republican candidates for president. Governor Romney was a consistent second, though he was nearly bested by Rick Santorum during the latter's April surge. Santorum and Ron Paul were a close third for most of the contest, with Herman Cain occasionally vying for a top spot as well. Newt Gingrich and Jon Huntsman were close behind, with Michelle Bachmann and then Rick Perry in last in terms of Klout for the bulk of the primary period. For perspective, the all-time high we see in this period of time is by President Obama, at 94.31 on May 17th, and the low is 36.11 by Rick Perry on April 17th and 18th.⁶ All candidates' Klout scores decreased from the first month to the last month of our sample, with three exceptions: Barack Obama, Mitt Romney, and Rick Santorum. This suggests that Klout scores are at least roughly indicative of overall success in the political realm, given that those three men did the best in the primary period.

We were also interested in how Klout scores compare to other social media metrics. To examine this, we performed simple correlations between Klout averages throughout our time period, and the measures of Twitter followers, Facebook likes, and the Peer Index score.

Correlations are shown in Table 1 below.

⁶ Barack Obama's Klout score of 94.31 is exceptionally high, on par with one of the most popular celebrities active on social media, Lady Gaga. As a side note the only person who earned a perfect score of 100 was Justin Bieber. The new algorithm has affected some of these scores by taking into account some offline activity of followers, as a result Obama has moved to the top of this elite Klout list, something that we will continue to monitor.

TABLE 1: Comparing Klout scores to other social media metrics using correlations

	Correlation with Klout
Twitter followers	0.58
Facebook likes	0.62
Peer Index	0.28

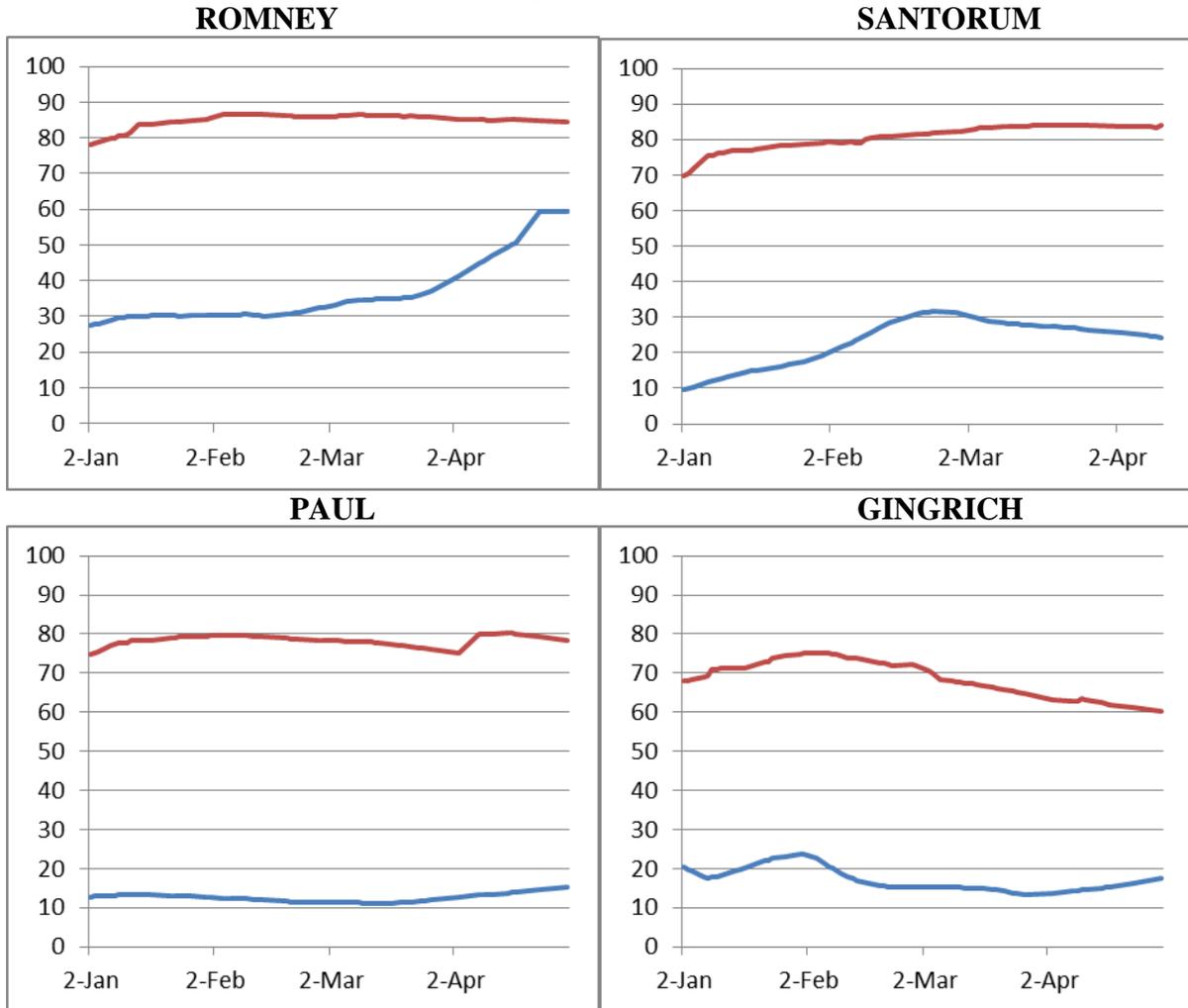
Generally speaking, it appears that Klout scores vary most strongly with Facebook likes. This is particularly interesting given that Klout originally considered only Twitter information in its measure (though now considers a wealth of social media data). Additionally, although Facebook and Twitter measures vary fairly strongly with Klout scores, one rival social media influence score, Peer Index, does not seem to be co-varying with Klout scores as a general rule.

We also compared Klout scores to public opinion data, using nearly-daily poll averages available from Pollster.com. Unfortunately, Pollster.com provides data only for the four candidates that stayed in the running for the Republican nomination the longest – Romney, Santorum, Paul, and Gingrich – and so we can only compare Klout scores to public opinion for those four candidates.

We first looked for trends between Klout scores and public opinion scores graphically. The four graphs showing each candidate’s Klout score and public opinion polling over the course of the primary season are shown in Figure 2 – red lines indicate Klout scores and blue lines indicate public opinion polling numbers. As can be seen in each graph, there are not strong patterns evident to the naked eye. To some extent the trend lines seem to go together for most candidates, but because both measures are essentially averages (Pollster aggregating a number of polls and smoothing them, and Klout using the past 90 days of information to generate its scores), the trends are devoid of the jumps we might expect to see in response to major campaign

events, and which might help point out whether Klout scores actually co-vary with public opinion polling, as well as whether one precedes the other.

FIGURE 2: Klout Scores and Public Opinion by Candidate



Note: red lines indicate klout scores; blue lines indicate Pollster public opinion scores.

We then calculated correlations between Klout scores and public opinion polling averages for each individual candidate. Interestingly, these varied fairly dramatically. Romney and Paul had relatively low correlations between Klout scores and public opinion polling, at 0.21 and 0.24 respectively. Gingrich and Santorum, on the other hand, had fairly high correlations, at 0.68 and 0.88 respectively. Given the dramatic ups and downs of the campaigns of both

Santorum and Gingrich, this might suggest that the less predictable candidates have stronger correlations between Klout scores and public opinion polling. Part of this strength of correlation might simply have to do with variation in scores. Gingrich and Santorum were at any given time leading in the polls and dead last in the polls, whereas Romney was typically the frontrunner and Paul was generally polling last or near to it. Still, this suggests that Klout scores may be a useful proxy for public opinion in some circumstances.

In the future we intend to continue this investigation by incorporating statewide vote margins for each primary to see whether a win has a measurable effect on Klout scores, or whether Klout scores can actually predict electoral success in a primary setting. We will also extend this investigation to candidates for lower public office to see if the trends we have identified persist in that context.

CONCLUSIONS

At the most fundamental level, this study attempted to evaluate the utility of Klout as a useful political measure. Generally, Klout proved to be a useful metric used to explore campaign influence or online communication. For researchers interested in these fields, Klout is easily accessible and seems to work as a reasonable proxy for other harder to get data including internal polling or web metrics that often help drive campaign strategy. In addition, the stability of Klout scores may serve as a particularly strong proxy for public opinion polls over a longer period of time. Klout scores provide the opportunity to externally evaluate the effectiveness of online campaign communication strategy during a campaign as opposed to simply connecting the dots after each election. It also is a much more sophisticated measurement of online presence and influence than the rudimentary measures available previously, such as Facebook likes or retweets

on Twitter. In addition, it offers an easy way to track changes in online influence over time, as it is updated daily.

There are, however, some very important challenges that Klout poses to scholars wanting to use it as a reliable measurement tool. First and foremost the algorithm used to determine the Klout scores is not publically known. This lack of transparency leaves a measure of doubt as to how accurate and reliable the Klout scores are. Besides the fact that the Klout does not make their score model public knowledge, the model is changed regularly to incorporate more signals from more sites. While Klout is very clear about when and why they make updates to the model, it still poses a challenge to using it as a long-term comparative tool because scores from before an algorithm update do not necessarily correlate perfectly with scores after. For example, after the recent August update to Klout scores, we saw scores for the candidates in our sample jump fairly dramatically – an average of 19 points and as much as 39 points for a single candidate. Moreover, because of the 90 day moving average, there is now no evidence of this jump within Klout itself. This highlights the importance of collecting data in real time, rather than retroactively.

This study offers substantial promise for future research. First, we plan to expand our research to include all congressional candidates and continue daily collection of Klout scores through the elections in November. This will offer the opportunity to test how useful Klout scores are in evaluating congressional and Senate campaigns along with the presidential races. In addition we will have definitive election results as well as final campaign donation data, which will offer great opportunities to test the effectiveness of using Klout to measure campaign communication influence. We will be able to test the correlation between the margin of

victory/defeat and Klout score and to determine if Klout scores can effectively help predict electoral victory.

The authors are also excited to perform time series analysis on the data collected. This will shed light on the extent to which Klout leads and/or follows other measures. If Klout scores are merely a lagging indicator then their usefulness as a method of evaluating campaign communication strategies may remain somewhat limited. Regardless, it will be possible to measure the effect of particular events in the political course of a particular campaign, election, or event. The potential usefulness of this measure is clear, but more investigation is warranted as to the practicality of applying it to real time election data.

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