

Internet Search and Elections in Established and Challenged Democracies (www.voterecology.com)

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Overview

In this project, we analysed Google Trends in elections in four countries and demonstrated the power of search data as a very effective social analytical tool. There is a significant opportunity for the development of a Google Voter app that makes transparent how voters are searching around particular political parties, candidates, issues and scandals in an election campaign. By looking at how Google searches create a 'halo' of related searches – such as how dismissive remarks about women in the workplace can lead to searches about women's status in society – we showed how voters can make leaps between arguably trivial events and information. In particular, this provides very specific evidence of how search contributes to knowledge, in this case to voter enlightenment. As informed voters are key to democracy, it is compelling proof of the value of making search results available to the public. These insights also are of great value to the political players themselves, especially parties, candidates and strategists.

Our research with Google Trends showed that most people do not sit around spontaneously searching for party or policy information during elections, but they are drawn to search when (through other sources in the media ecology, including online sources) they learn of something weird or unexpected happening on the campaign trail. Despite the arguably trivial nature of the events that trigger Google searches in elections, these spikes in searching during the campaign can lead to enhanced voter information in meaningful ways. For example, we found that people were drawn to Google in large numbers in conjunction with politicians' gaffes in the United States and Britain. Sometimes gaffes such as Mitt Romney's 'binders full of women' during the 2012 presidential debates led to searches about broader societal issues (in this case women and advancement). At other times, there was no 'leap' into searches for broader social and policy 'themes and the Google audience just revelled in reliving the gaffe itself. Gordon Brown's regrettable rant about a 'racist'

voter in 2010 led to searches for the event, but little interest in searching for more information about immigrants and British society.

While gaffes are an interesting window into how voters learn in unusual and unexpected ways via online search in elections, we also found other ways to use search to learn about voters. In troubled democracies or failing states such as Italy and Egypt, search patterns allow us to peer beneath the surface of parties and candidates to see how people struggle to gain and understand information about elections in turbulent times. Here, these 'Google Voters' are often more interested in charismatic leaders and causes, with less concern for searching for parties and policies.

We have completed the academic research to establish the theories and methods outlined above. Much of our work is listed and/or available on a public website, www.voterecology.com. Going forward, we are particularly interested in developing a Google Voter app that would train users how to best use Google to match political interests to issues, candidates and parties during campaigns. We envision this as a civic education app – in other words, we are not interested in connecting citizens to specific parties or candidates during campaigns, but rather helping voters to move beyond campaign events to find more political information with which to make better-informed voting decisions.

Internet search is a potentially disruptive mode of communication in elections, in established and struggling democracies alike. As scholars, we are fascinated with what this can add to the existing canon of knowledge about voting behaviour. Online data, including search trends, social-media content, networks and geo-location, all contribute new and unprecedented layers to our ability to study voters. The challenge is in both fitting them into existing theories and methodologies – as well as understanding that this huge trove of data will call for the development of new tools and even new theories in order to harvest the new wealth of data.

Method and main nerd findings

Our project was funded by the ESRC Google Analytics Social Science Programme. Full outcomes are listed on the project website, www.voterecology.com. The principal investigator was Prof. Andrew Hoskins (University of Glasgow) and the senior researcher was Prof. Sarah Oates (formerly University of Glasgow, now at the University of Maryland College Park). Prof. Oates was the founder and chair of the Google UK Research Forum, a research exchange seminar that helped to create the ESRC Google Analytics Social Science Programme. The research assistant on the project was Dr. Filippo Trevisan. Ms Dounia Mahloully, a PhD student at the University of Glasgow, also contributed to the project.

The project was ambitious and fulfilled its goal of looking at how search functioned in elections in the United States (2012 presidential), the United Kingdom (2010 parliamentary), Italy (2013 parliamentary) and Egypt (2012 presidential). We employed an inductive methodology, meaning that we examined the issues and events of each targeted election, made educated questions about the types of

searches that people would conduct, and then examined the Google Trends history surrounding these campaign issues and events. The team had linguistic and cultural experts in all of the elections and country areas (Trevisan speaks native Italian and Mahloulou speaks fluent Arabic). We also looked at related searches that were linked to our original search query studies.

We quickly found that events sparked the most searching (and hence the most measurable search activity) in the United States and the United Kingdom. We were interested, in particular, in augmenting existing understandings of the new media 'ecology' brought about by the changes in information communication technology. Thus, at the same time we were developing new methodologies and theories relating directly to search behaviour in elections, we were also fitting this into broader, historic understandings of the role of the media in elections and society more generally. A discussion of the theoretical benefits and challenges to using search (particularly Google Trends) as a social-science research tool is outlined in this open-access article by Trevisan in the interdisciplinary internet studies journal First Monday (click [here](#) to access a copy).

To summarise, the article notes that a central 'search engine' field of inquiry has yet to emerge. The use of search engine data to address social research questions is spread across many disciplines, which makes search valuable across fields but not critical to any one particular area. The article highlights a shift in thinking about the role of search engines in social science – that social scientists should focus on what search engines reveal about the broader population in addition to studying search engines as institutions. The article identifies and discusses methodological challenges in using search engine results in social science studies, notably the relationship of search results to more established social research methods, concerns over the representativeness of search engine data, the problems of matching search-engine results data with other types of evidence as well as the limitations of data available through public portals such as Google Trends.

We used case studies to develop the methodology: elections in the United States, Great Britain, Italy and Egypt. For this briefing, we will summarise and present key figures and tables (for those seeking the full theoretical and methodological explanations, we are happy to provide a paper by Trevisan, Hoskins and Mahloulou from the 2014 American Political Science Association annual meeting).

Established democracies: The UK and the U.S.

Our research found that there are predictable peaks of search behaviour in elections that are linked to campaign/party events, mass media events (i.e. staged televised debates), gaffes or scandals involving candidates or other figures in the campaign as well as external events or crises such as the attack on the U.S. embassy in Benghazi on September 11, 2012 (as reflected in Figure 1). Figure 1 identifies the peaks in search traffic and shows the variation in search traffic for Barack Obama (blue) and Mitt Romney (red). It is particularly interesting to note the way that scandals or gaffes cause changes in search behaviour. In particular, there was a surge of interest

in Romney in the online release of his comments about the '47 per cent' of Americans who allegedly won't ever pay taxes and care about fiscal responsibility in mid-September 2012.

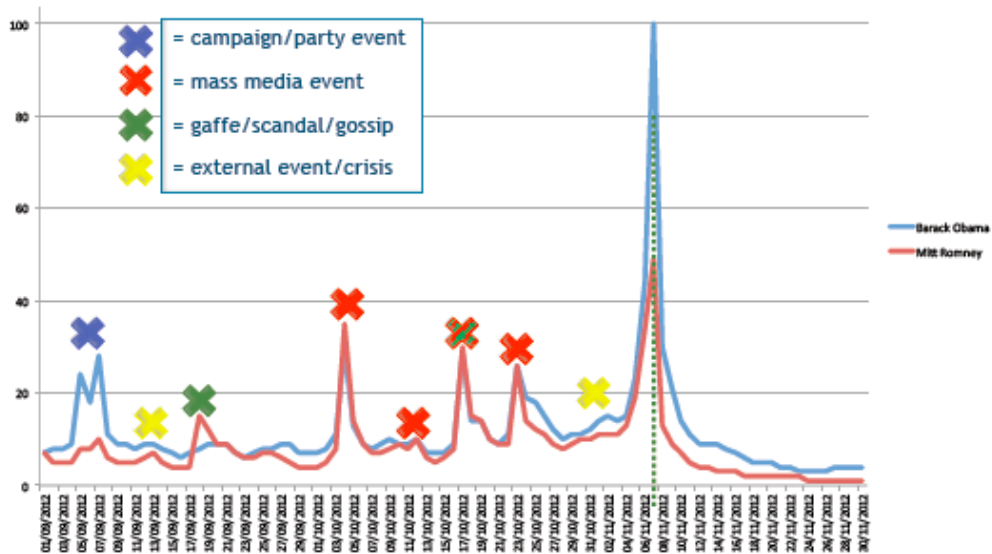


Figure 1: Search popularity for “Barack Obama” and “Mitt Romney” in the United States, September-November 2012 (Google Trends score on Y axis, date on X axis).

When this chart is compared with Google search trends in the British 2010 general elections (Figure 2), it is clear that the ‘outsider’ party (the Liberal-Democrats) received an unusually high level of attention from the searching public. Peaks for Nick Clegg, the leader of the Liberal-Democrats, outstripped those of the major parties just after the televised leader debates.

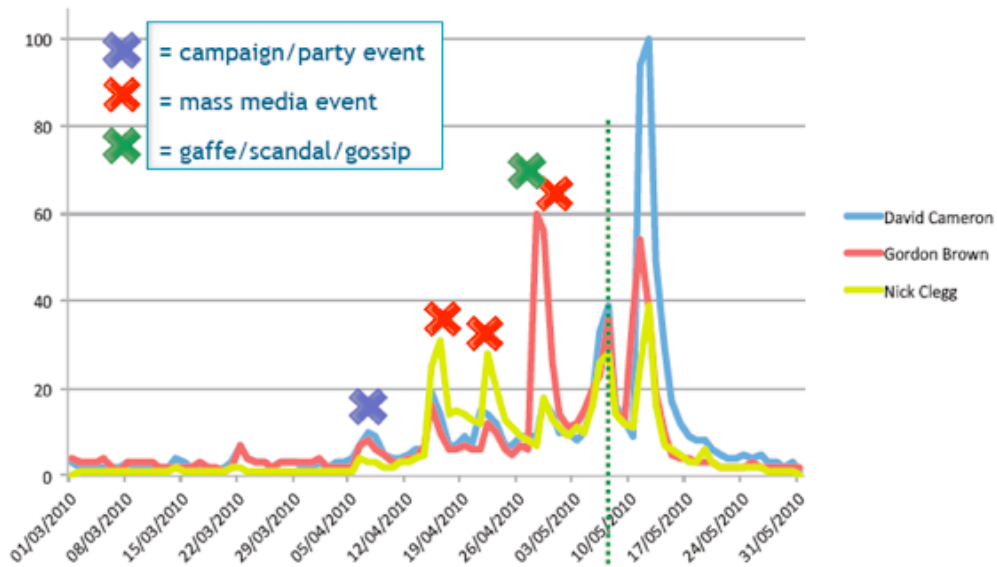


Figure 2: Search popularity for “Gordon Brown,” “David Cameron” and “Nick Clegg” in the United Kingdom, March-May 2010 (Google Trends score on Y axis, date on X axis).

Here Google Trends can show us the measurable effect of the policy that allowed – quite unusually – for a third-party candidate to participate on an equal footing with Conservative and Labour leaders in the televised election debates in 2010. Also, the effect of Gordon Brown’s gaffe in leaving his microphone on to complain about a constituent who he deemed a ‘racist’ is clearly seen in the search peak around April 28-29, 2010.

In Figure 3 and Table 1 we can see how Google Trends shows us a societal response to the ‘binders full of women’ gaffe by Romney in the second presidential debate.¹ Figure 3 shows a greater volume of searches for ‘gender equity’ and ‘women’s rights’ in the United States after the comment on October 20, 2012. By calculating the mean and median of the searches, the heightened interest in the issues can be expressed as a score as seen in Table 1.

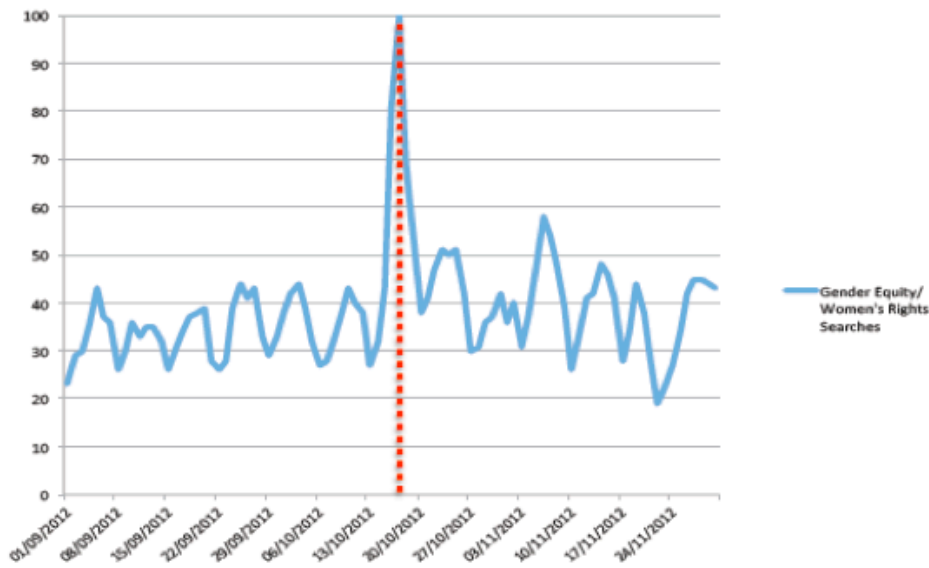


Figure 3: Search popularity for “gender equity” and “women’s rights” in the United States, September-November 2012 (Google Trends core on Y axis, date on X axis).

Dates	Average Google Trends score	
	Mean	Median
Before “Binders full of women” (1 September-15 October)	34.48	34.5
After “Binders full of women” (18 October-30 November)	40.5	41

Table 1: Average Google Trends daily score for gender equity and women’s rights issues before/after “binders full of women” gaffe by Romney.

It should be noted that the analysis of the search trends after Brown’s ‘bigot-gate’ did not show a heightened interest in information on the immigration debate in the

¹In response to a debate question about whether he supported helping women achieve more leadership positions, Romney said that he had “binders full of women” candidates to help him fill posts when he was governor of Massachusetts. This answer was seen as dismissive of the broader point and as out of touch with the real challenges of gender equity in the United States.

United Kingdom (the voter had complained to Brown about immigrants taking resources from needy families in her community).

Challenged democracy: Italy

Italy and Egypt presented very different challenges for the Google Trends research because of the frailty of political institutions in both countries. Search patterns for Italian political leaders (in Italian) in the 2013 Italian elections were subject to sharp increases and declines, mirroring the weak parties and political chaos that dominated the elections in the shadow of the Berlusconi era as seen in Figure 4. Even after parliament had been dissolved in anticipation of the elections, it was unclear which parties and candidates were going to run for office. An ‘outsider’ leader named Beppe Grillo (a popular comedian-cum-politician at the head of a self-styled ‘renewal’ movement organised through MeetUp.com) came to dominate in search patterns following the initial period of instability (i.e. from mid-January 2013 onwards).

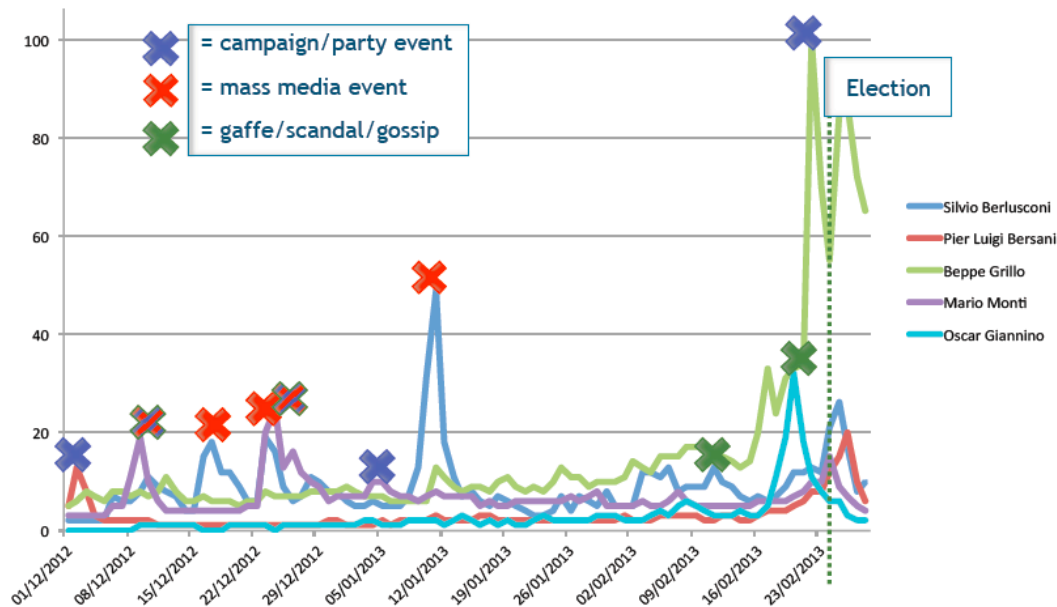


Figure 4: Search popularity for Italian party coalitions’ leaders on Google.it, Dec. 2012-Feb. 2013 (Google Trends score on Y axis, date on X axis).

While analysts might be quick to dub this as an example of the internet changing politics, in fact the Grillo phenomenon was not evidence of online populism replacing politics as normal. First of all, politics as ‘normal’ had been in steady decline in Italy, making it far more likely for outsider candidates to attract considerable interest in a single election. In addition, online users in Italy are rather overwhelmingly young, more so than in other Western countries, so the sample is somewhat skewed toward those with less interest in the aging, troubled traditional parties in Italy, as well as the medium of television that had constituted a cornerstone of political campaigning during the Berlusconi years.

Grillo’s unusual antics, background and more sophisticated online marketing all drove more online interest vis-à-vis other political parties. Nor was this completely a choice on the part of outsider candidates, as the heavily politicised broadcast sector in Italy is aligned with traditional power bases and rarely gives voice to those who do not have relationships with the media outlets. Thus, the Google Voter experience in Italy shows the necessity of considering the use of search against the full background of the media ecology and political developments more broadly.

Transitional state: Egypt

In Egypt, we were interested in what search patterns could reveal in a nascent and troubled electoral democracy. By looking at searches (in Arabic) we quickly established that search peaks do not coalesce around political parties or candidates. This was unsurprising in that political parties have failed to establish credibility among Egyptian citizens. However, search patterns were often much more focused by those who challenged the political sphere, particularly those who came to be known as ‘martyrs’ of the revolution (Figure 5).

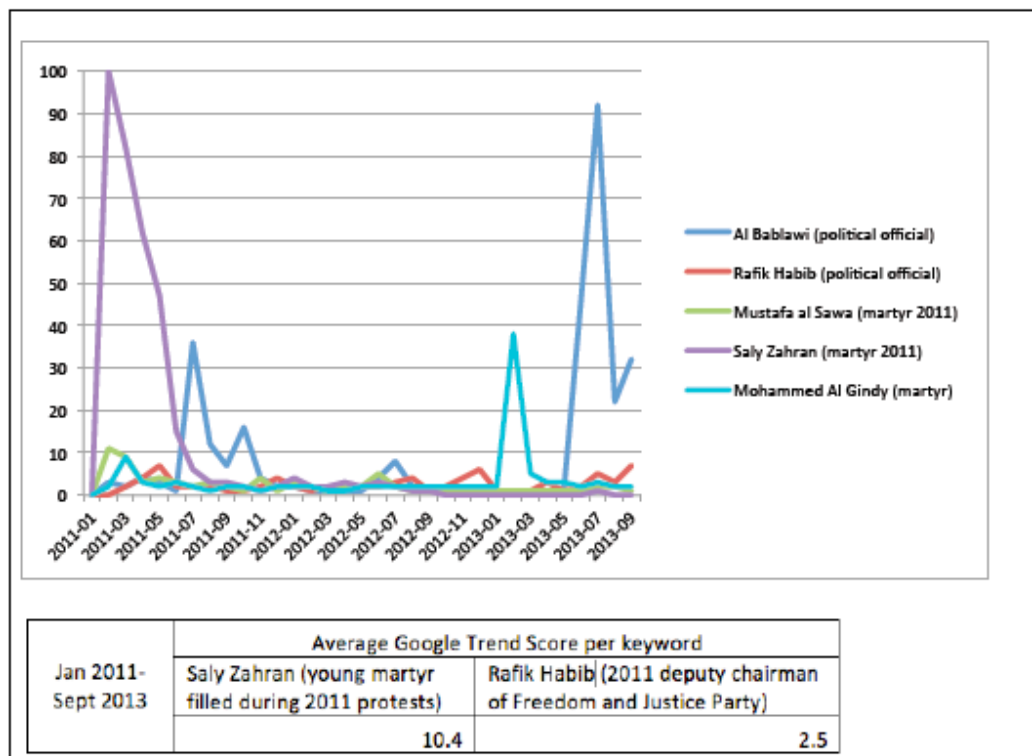


Figure 5: Search popularity for less prominent members of the political establishment, activists and “martyrs”, January 2011-September 2013.

This probably reflects that the mainstream political elite were seen as a corrupt class. As such, it is difficult to expect Egyptian voters to view parties and candidates free of the lens of distrust from decades of authoritarian rule. As Egyptians, disillusioned with the traditional news media that for decades collaborated with Mubarak’s regime, turned to the internet for political information, search patterns exposed a strong residual interest in ‘revolutionary’ politics at a time in which elite politicians were attempting to establish a new constitutional order. Therefore,

Google Trends data illuminates how citizens in a fragile and emergent democracy negotiate knowledge acquisition in an electoral period. This gives us a new way of understanding how citizens approach elections in post-authoritarian states, which provides incredibly valuable insights on how societies may be able to overcome oppressive state legacies.

Challenges

The key challenge to our research was to find a way to present Google Trends as a valid and reliable social-science indicator. We were unable to access any information beyond that which is presented to the public via the Google Trends website. This information is still very useful, as we have shown through a range of publications and presentations. However, this means that the level of granularity of the results is limited. All of the results we analysed are prey to the ecological fallacy, i.e. we are trying to explain individual behaviour through aggregate results. However, as the volume of Google searches is so high in these countries (indeed, in most countries) we are confident that these are robust findings.

As we disseminated our results, a common issue was the perception that Google Trends were not 'real' data. In particular at the beginning of the project, there was relatively little academic literature on the use of Google Trend data. This literature has increased and a critical mass of studies has emerged to justify a 'best practice' in Google Trends use. The challenge of integrating search data, via Google Trends, into social-science inquiry is discussed below as an opportunity.

Opportunities

Our project confirmed our hope that Google Trends could provide new ways of understanding public thought and behaviour. Much of the Google Trends focus has been on business modelling, which is useful and interesting. However, Google Trends can provide so much more than predicting the need for stock or changes in demand for various products (including medical supplies). It offers a way to understand how citizens seek knowledge in a range of situations. For our project, we were particularly interested in how voters seek information and we looked at this in four different types of democracies. We gained insights that we could not have had without search data.

This creates an opportunity to package and market Google Trends more aggressively as a knowledge tool.

We really welcome feedback, and for any queries, please do not hesitate to contact members of the research team (Emails listed on first page).