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Research Proposal-- Information Seeking Behaviors: Indicators of Electoral Popularity

Objective: The proposed research will identify correlations between data generated from online seeking behavior and election outcomes.

Introduction

Political campaigns thrive on data and ensuring their candidate garners as much media exposure prior to Election Day. In the modern political environment, voters have access to politicians thanks to an aggressive traditional media advertising schedule, an even more aggressive digital political campaign on the internet, and endless offline voter contact activities during the election cycle. In this scenario, the voter is the consumer of political information operation plans. In a different situation, the voter has the opportunity to seek information about political candidates and becomes the information seeker. A voter can act on this position much more easily now thanks to the internet, various political websites, and social media platforms online. When someone wants to research a candidate, it is natural to query a politician's name online via a search engine, such as Google Search. In many cases, individuals use Wikipedia as a resource to learn about a politician, too. Today, individuals can easily research a political candidate online and seek additional digital material that can help the voter determine political preferences leading up to Election Day. The voter who actively looks for information is displaying "seeking behavior"¹ and "information demand behavior."² This type of behavior can implicitly reveal sentiment or preference thanks to the information seekers' activities online.

Frameworks

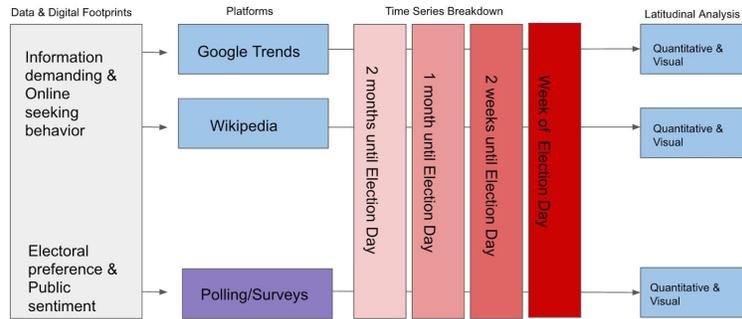
Online information seekers reveal their interest in a political candidate; a curiosity that prompted them to seek more information or to keep abreast of any developments occurring on the campaign trail. These

¹ Bright, J. and Yasseri, T. (2013) "Can electoral popularity be predicted with socially generated big data?" Oxford Internet Institute, University of Oxford.

² MacDonald, R. and Mao, X. (2015) "An Alternative Way of Predicting the Outcome of the Scottish Independence Referendum: the Information in the Ether." Adam Smith Business School, University of Glasgow.
http://www.gla.ac.uk/media/media_392985_en.pdf.

activities can be interpreted as preferences during the campaign cycle. The proposed research will identify correlations between data generated from online seeking behavior and election outcomes. Socially generated data from Google Trends, Wikipedia, and other social media platforms help researchers understand collective movements and aggregated sentiment.³

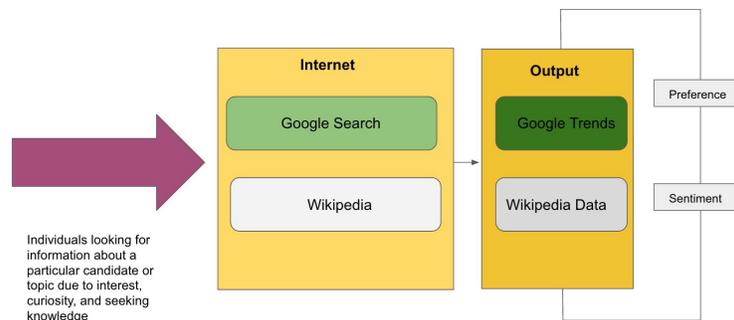
Figure 1: Proposed conceptual framework



Source: Own work

As the research project progresses and more data are mined and curated, this research project will take a latitudinal approach in studying seeking behavior during election cycles and observing how the data trend evolves over time.

Figure 2. Online seeking and information demand behavior & predictability model



Source: Own work (graphic)

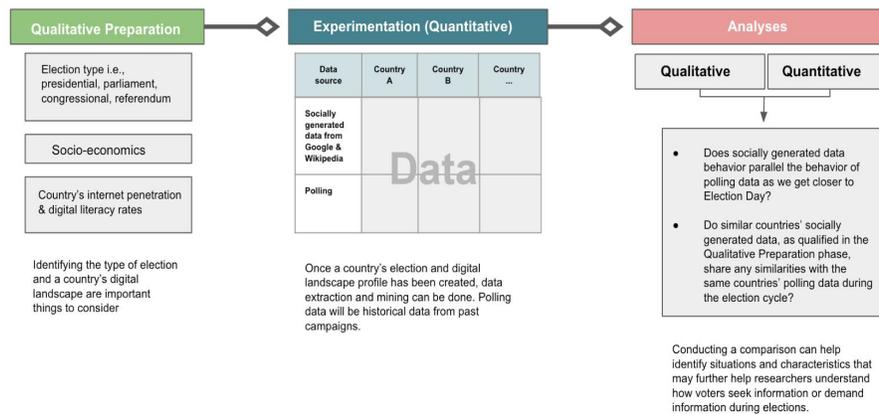
³ Margetts, H., John, P., Hale, S., and Yasseri, T. (2015) *Political Turbulence: How Social Media Shape Collective Action*. Princeton University Press.

Researchers and computational social scientists found search volumes on both Google Trends and Wikipedia platforms predicted the election winners in Iran (2013) and UK (2010).⁴ Computational social scientists and data scientists continue to study Wikipedia to see if there are any correlative or predictive capabilities that can be applied to other subjects and areas of interest. In a study conducted by Mestyán, Yasseri, and Keretes, page views and edits on movie pages on Wikipedia were useful in predicting the financial success of a movie.⁵

Research Design & Methodology

The research will validate the hypothesis by utilizing qualitative and quantitative approaches. The first step is the qualitative preparation, which primarily focuses on organizing data and qualifying what variables are important to note when curating pertinent data for study.

Figure 3. Proposed Methodological Framework



Source: Own work

In the qualitative phase, the first step will focus on classifying countries based on election type. At this point, it is important to understand the type of election that will be studied i.e., presidential, parliamentary, 50+1 majority, electoral college, etc. The next step in the qualitative preparation phase is identifying search terms to input and track on Google Trends and Wikipedia. The purpose of classifying

⁴ Yasseri and Bright, op. cit.

⁵ Mestyán M, Yasseri T, Kertész J (2013) Early Prediction of Movie Box Office Success Based on Wikipedia Activity Big Data. PLoS ONE 8(8): e71226. doi:10.1371/journal.pone.0071226.

these countries based on election type and other variables is to ensure the research outcomes for varying election cycles and countries can be compared appropriately. After the qualitative assessments are done, each respective country's relevant online seeking search volume data during the election cycle will be pulled from Google Trends and Wikipedia.

This research will contribute to the current literature on electoral popularity using Google Trends and Wikipedia during election cycles. There are three (3) ways this research project will contribute to the current dialogue: 1) Highlight the role demographics play in information seeking behavior data as an indicator of electoral popularity; 2) It will identify when information seeking behavior data from Google Trends and Wikipedia are more predictive in certain types of elections compared to others. For example, an electoral popularity prediction may be much more accurate in an election that declares the candidate with the most votes (50% +1) as the winner; and 3) It will assess how sentiment and electoral preferences evolve over time.

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