

DSC 630 Predictive Analytics

Assignment 11.3: Case Study: How Persuasion Modeling Helps Political Candidates Win Elections

Overview

Introduction

One of the topics discussed in *Predictive Analytics: The Power to Predict Who Will Click, Buy, Lie, or Die* by Eric Siegel is how President Barack Obama was able to win his re-election campaign in 2012 with the help of a somewhat newer tool, one that hadn't been used — at least to this extent — in a presidential election before. That tool was persuasion modeling.

While it is pretty well known that the Obama re-election campaign used an analytics team that implemented a “Moneyball”¹ strategy, what most people didn't know until it was spoken about after the election is that this campaign also benefitted greatly by defining potential votes at a very narrow level, and it took micro-targeting of voters to a whole new stratosphere. The 2012 Obama campaign was monumental in its use of data to help predict and sway potential voters, and it set the stage for the next US presidential election — the 2016 election is a totally different paper! — and all elections

¹ <https://en.wikipedia.org/wiki/Moneyball>

to follow; by its use of applying an advanced form of predictive analytics that identifies those rare gems — genuinely persuasive voters — the dynamics of elections and politics have been altered forever.

Background

It has been repeated ad nauseam that during any election, one of the key ways to win is by not only ensuring that your core group of supporters — your base — turn out to vote for you, but by also getting the folks on the fence about who to vote for — the swing voters² — to also lend you their backing. That being said, the concept of swing voters is somewhat ill-defined and rather subjective. While political campaigns may have information about swing voters in their databases, many of these voters have in fact already made up their minds and are in fact “un-swingable.”

Defining the Problem

Ultimately, what *really* matters to a campaign candidate is a question that is definitive, but very pinpointed:

Who will be influenced to vote for the candidate by an ad (in any form such as on social media, internet, radio, or television), or a call, door knock, or flyer?

In other words: Who can be persuaded to vote for the candidate? With this in mind, the Obama team predicted a whole new thing entirely: Beyond predicting *how* a constituent would be destined to vote, they predicted whether each individual voter would or could be *persuaded by campaign contact*. And by doing this, they realized that the best way to do persuasion was to predict it.

² A swing voter or floating voter is a voter who may not be affiliated with a particular political party (Independent) or who will vote across party lines. In American politics, many centrists, liberal Republicans, and conservative Democrats are considered “swing voters” since their voting patterns cannot be predicted with certainty.

Defining the Target Variables

Over the first 18 months, the Obama campaign worked to combine multiple, disparate databases throughout the Democratic party into a single, massive dataset that could merge information collected from pollsters, fundraisers, field workers and consumer databases, as well as social media and mobile contacts with the main Democratic voter files in the swing states. Their new dataset didn't just tell the campaign how to find voters and get their attention; it also allowed the data team to run tests predicting which types of people would be persuaded by certain kinds of appeals. Call lists in field offices, for instance, didn't just list names and numbers; they also ranked names in order of their persuadability, with the campaign's most important priorities first. About 75% of the determining factors were basics like age, sex, race, neighborhood and voting record. Consumer data about voters helped round out the picture.

Data Understanding

The 2012 Obama data team built persuasion models for each swing state to predict the potential to persuade for each of *millions* of individuals in swing states. By doing this, the models were able to tell the team which voters were most likely to be won over to Obama's side — and which voters should avoid being contacted entirely.

Data Preparation

The data team on Obama's staff could only tackle the persuasion problem with the right data sets. To this end, they tested across thousands of swing state voters the very actions they would later decide on for millions. Clusters of voters received campaign contact — via door knocks, flyers, and phone calls — and, most importantly, other batches received no contact at all (the control groups). All the clusters were then later polled to see whether they would support Obama in the voting booth.

Modeling

Persuasive models address a particularly intricate form of prediction. Beyond identifying the voters who would come out for Obama if contacted, these models had to distinguish between those voters who would come out for Obama in any case (sure things / base supporters) as well as those who were actually at risk of being turned off by campaign contact and switching their vote to Mitt Romney. This last component is crucial as it averts cases where a knock on the door or a flyer tucked into a mailbox may backfire.

The team experimented extensively with avant-garde persuasive modeling techniques. Although they did not disclose which types of electoral data may have made a difference in the detection of “persuasiveness,” their related effort predicting a voter’s propensity to vote for Obama (regardless of campaign contact) has employed more than 80 variables — including demographics, voting history, and magazine subscriptions.

Deployment, Summary, and Conclusions

At the conclusion of having their dataset and models completed, the 2012 Obama analytics team could predict a multitude of things, even rather detailed information such as people more inclined to give online and those who would rather contribute to the campaign via the mail. They could even model who would or wouldn’t be volunteers for the campaign. As one of the senior advisers described, “In the end, modeling became something way bigger for us in ’12 than in ’08 because it made our time more efficient.” And persuasion modeling helped propel them to victory.