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Why

Trump

has a lot to thank big data for...
and vice versa

by
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Across various sectors of retail, hospitality, airlines and others, more companies are turning to data science to obtain a deeper understanding of their customers' needs, desires and aspirations and using content to build an intimate relation with their brands and products, in the same way Trump has connected with his voters and sold them on his vision for a new America, from bringing back jobs to fighting ISIS. If data has been declared as the new oil, then content now is obviously the new gold. Yet the latest disappointment from news and media outlets about the

much-anticipated victory of Hillary Clinton over Donald Trump may have cast big doubts towards the use of Big Data in forecasting election results but it certainly raised many questions about its effectiveness as a decision management tool.

From the early days of the election, pollsters and big data enthusiasts ran state and national polls, collected data from public surveys and social media and built several analytical models to predict the winner. FiveThirtyEight, a leading election modeling website, put Clinton's chance of winning over Trump at 71% vs 28%, and Moody's Analytics forecast a big victory for

Hillary Clinton with 332 electoral votes against 206 for Trump. When news of Trump's victory came out, it seemed that the promise of big data was simply too big to reach, and everyone rushed to discredit data and analytics and blame analysts and data scientists for getting it wrong.

Big Data is Bigger Than Just Data

While big data has been making a lot of buzz in the news, knowledge and awareness about the intricacies of big data and how it can be effectively leveraged to address business problems remained a mystery. It's no

wonder that in a recent report by the Economist Intelligence Unit, "Broken Links: Why analytics investments have yet to pay off", only 2% of surveyed respondents indicated that it had, "a broad, positive impact".

In the minds of many executives, big data is merely an expensive gadget and dashboards with slick icons and sexy graphs, owned and managed as an IT asset by an army of IT nerds and computer geeks. For the more educated ones, Big Data provides the ability to easily and visually navigate through massive amount of data through a BI (Business Intelligence) tool.

However, candidates investing much time, capital and reputation, need much more from analytics than pretty graphs. They needed a tool to guide every aspect of their campaign: what's the right message that will persuade more undecided voters? And which channels should be used to maximise voter turnout based on demographics and behaviour? It was Trump's team that had a deeper appreciation for what data science can do, and turned to the UK-based Cambridge Analytica to help turn his hopeless dream into an eminent reality.

Prescription, Beyond Just Description and Prediction

Predicting the results of the presidential elections has been traditional since the '70s. Moody's Analytics technique, which combines economic and political models in one, has been predicting the winner of every US presidential race since Ronald Reagan in 1980. In 2016, data profiling of voters' declared age, race and education were pivotal factors in the election; however, this provided a false sense of security to Clinton's team, who were made to believe that she had all but 17% of Hispanic votes and 3% of black votes.

One study reported that if only women voted for Hillary Clinton that she would beat Trump by 458 electoral votes to 80. But with emphasis on winner-take-all electoral data, the math used had obscured the depth and variance of the candidates' support among key demographic groups. For a politician

like Clinton, who's distanced from the game of numbers, simple profiling of your constituents and mapping their statistical contribution to your seat in the White House does little to expand your voter base.

In contrast, the Trump campaign realised that what's needed is more than just basic profiling or prediction of possible win/no-win; they needed a detailed plan that would test different campaign scenarios and optimise the critical pathways to the Presidency.

With Data Science, You Don't Have to Just Know Your Voters ... You Can Create Them

While pollsters and US news agencies were busy engaging in confirmation bias (the myopic practice of looking at only the data that would defend what they believe instead of using all data at their disposal to drive logical arrivals at the truth) and assuring the US public of Trump's defeat, Trump's data science team were busy mind-reading voters. They built a model that relied on data collected from personality surveys conducted by telephone, email, and social media and incorporated demographic attributes (age, race, income) with behavioural traits (voting, spending, online habits) to predict the personality traits of Trump supporters (sarcasm, neuroticism, etc.) and the issues to which they strongly relate.

They then advised Trump on tailoring his message to the largest voter base according to the issues of highest priorities to voters. In parallel, they launched behind-the-scene campaigns targeting voters on social media with intense data-driven posts based on their unconscious psychological biases. Outside politics and within the world of marketing, this new and powerful trend of moving from a Know-Your-Customer (KYC) strategy to more of a Create-Your-Customer (CYC) is what's fueling the demand for data from web, social media and other online data sources.

With so many stories of failing attempts, perception about the

promise of big data and its potential value may be as controversial as Trump himself. Unlike Trump, however, big data may have not yet had its final word in the race to compete and win with analytics. What's certain is that big data does lend itself to Trump-like-minded business leaders who not only put their faith in big data but are willing to invest in and mobilise creative and innovative data science capabilities to mine data others are ignoring. Only then will these business leaders be able to challenge stubbornly-upheld beliefs and create new realities for themselves.

For now, we can count on similar success stories in big data to continue to transform sceptics into believers, regain faith in the power of analytics, and make big data truly Big! ■



About the author:

Amjad Zaim is the founder of Cognitro Analytics, an international consultancy firm dedicated to advancing the field of analytics, and is a well-seasoned data scientist with 20+ years of international experience in leveraging analytics in health, banking, telecom, security and government/public sector. Amjad is former professor of Biomedical Engineering and Computer Science at the University of Texas where he established the VIB (Vision, Intelligence and Bioinformatics) research centre bridging research in artificial intelligence with business, health and industrial applications. Amjad routinely advises government and public agencies on building data science capabilities and on the institutionalisation of Big Data within the fabric of the organisation. Amjad holds two Masters in Biomedical Engineering and Computer Science, an MBA and a PhD in Biomedical Engineering from the University of Toledo in Ohio.
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