

Rayid Ghani

Distinguished Career Professor; Former Chief Scientist of the Obama 2012 Election Campaign

Did you vote in 2012? If so, Rayid Ghani may have lent a hand. He was the chief scientist at Obama for America in 2012 and played a groundbreaking role in the campaign. Focusing on analytics, technology, and data, he used online tools like email and social networking to motivate people's offline actions, from fundraising and volunteering to voting.

Ghani is one of a small number of tech wizards in an increasingly data-driven world. If the 2008 campaign was about charisma and hope, the 2012 campaign was about science and data. Gone is the art of the political campaign. Successful campaigns are no longer run by people who play by gut instinct but instead by people like Ghani. With work that focuses on developing and using machine learning and data mining algorithms to solve challenges in business, government, and politics, he helps organizations make the most out of their institutional knowledge. In today's data-centric, competitive world, businesses need to utilize increasingly targeted approaches to attract consumers. One of the leading experts in this field, Rayid Ghani addresses how data, analytics, and communications advances can be used to influence and change consumer behavior. He tells stories from his time in the Obama camp and shares successes about using the latest tools and applying big data to organizations.

The Science Is The New Art of Campaigns. At Obama for America, Ghani aimed to convert the vast amount of data collected through large commercial databases, boutique lists, voter files, social media sites, and an unprecedented quantity of voter interviews into a source of valuable data. With the use of sophisticated analytics, algorithms, and machine learning, the insights from the data were used to galvanize the campaign and predict voters' views on particular issues like abortion and the economy. Armed with this information, the campaign was more focused in its message, and the result was vastly increased efficiency in fund-raising and volunteer and voter mobilization.

At Accenture. Before Obama for America, Ghani worked at Accenture Technology Labs for 10 years as a research scientist and the director of analytics research. His work closed the gap between academia and business and spanned a variety of industries, including healthcare, retail and consumer packaged goods (CPG), manufacturing, intelligence, and financial services. Ghani mined mountains of private corporate data to find statistical patterns that could forecast consumer behavior. He then helped organizations find and use patterns in consumer behavior to develop targeted strategies for individual preferences. For example, he deployed algorithms that replaced health insurers' random audits, to anticipate which of 50,000 daily claims were most likely to require individual attention.

Media & Publications. Ghani's work has been published in more than 50 academic publications with more than 2,000 citations. He has received myriad media mentions on TV and in publications like *TIME*, *The New York Times*, *Slate*, *Businessweek*, *Financial Times*, *Chicago Tribune*, and *U.S. News & World Report*. He has also been featured in books, such as *The Numerati* and *SuperCrunchers*. Ghani's interests span a whole gamut from general machine learning and data mining to privacy preserving data mining, text mining, semi-supervised learning, active learning, information retrieval, NLP, and knowledge management. He has filed for 15 patents and seven have been awarded so far.