Algorithm has the word on U.S. election
4 November 2016

"Trump is doing better in the south, but unless there is some big negative news about Hillary over the weekend, or a dramatic change in the Trump campaign, our prediction for a Hillary win will hold."

Professor Li said his data looked at trends and changes "based on sentiment analysis on unique language models that both candidates are using".

"We provide nationwide and state-wide predictions and show how the forecast has changed," he said.

"We also do a rates comparison on issues, with the information accumulated using sentiment analysis and 'deep learning' algorithms.

"Broadly speaking, 'deep learning' feeds data input through multiple processing layers that seek to model high-level abstractions."

Professor Li's big data expertise led to his inclusion in the Australian Financial Review's Power Issue 2015, under the heading Australian computer scientist ... t predicts elections.

"The US election is more location-sensitive than the Australian election, as each US state has an independent popular vote for the final electoral vote," Professor Li said.

"The electoral vote system means US citizens do not directly elect the government – instead they choose electors, who usually pledge to vote for particular candidates.

"So we look at Twitter users who we can identify as being located in a particular US state to calculate a popular vote for each state."

Professor Li said the analysis divided US election issues into 17 categories: immigration, abortion, guns, foreign policy, taxes, gay marriage, health care, economy and jobs, civil liberties, crime and safety, environment, education, budget and spending, national security, Medicare and social security, veterans, and energy.
"Only tweets related to these categories are considered," he said.

"In this way, we can get a feeling for the reasons people support certain candidates."

Professor Li said data science was having an increasing impact on the world.

Provided by University of Queensland


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