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### Can big data predict which bills will pass Congress?

According to this article, Tim Hwang established a company, FiscalNote, which discovers the shielding data behind bills to help those pass Congress. This company searched from government websites to extract data from 1.5 million active bills across Congress, 50 state legislatures and 9000 city councils to predict the possibility of putting those bills into law. I believe that this company can succeed in the prediction of bills passing if it can take significant factors into consideration and find the ways to quantify the factors or formulate the principles which are difficult to determine.

In my opinion, the prediction is a kind of induction. It means that people need sufficient data relevant to the event that they want to predict. For example, the weather bureau predicts the weather forecast of the coming week, and they need to know large numbers of relevant factors, such as the current temperature, current humidity, geographic information, etc. Accordingly, based on the information gathered, they generally can have an accurate prediction. The same idea also exists in this case. If they include all the significant factors into their learning model, they can generate a highly precise prediction for those bills' passing.

When people try to include all the represented factors, I think they sometimes face the problem of how to quantify the factors and formulate the principles. For instance, if I want to predict the possibility of the next Korean war, it is hard for me to quantify or understand the thinking of the North Korean leader. Therefore, knowing how to quantify the factors or express the principles is also very important.

To the end of my answer, I want to say one more thing. The result of prediction could be changed over time. For example, before the fourth game of the East division final of MLB, the Red Sox already lost three games. No one knew that the Red Sox could continually win the following eight games and got the world championship in 2004. This example gave us a thought that the prediction would fluctuate over time according to the changing conditions.