

Tracking the flu via tweets

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Social media can help researchers predict the severity of the flu season. Credit: Flickr CC: William Brawley

Public Twitter data can predict flu outbreaks, according to researchers at the University of Adelaide. They've used public Twitter data to better predict when the flu season will peak and how bad it will be.



Dr. Lewis Mitchell, who co-authored the research, says they found there was a positive relationship between retweets of news articles about the flu and flu levels in that location.

"In other words, the more retweets there were, the more <u>flu cases</u> you had," he says.

Interestingly there wasn't a link between tweets mentioning flu-related symptoms, like coughs or headaches, with flu cases.

"We think that's because people use those words in all sorts of different contexts," says Lewis.

Traditionally, collecting <u>public health</u> data on a <u>flu outbreak</u> has been slow and costly, requiring either lab pathology results (which can take weeks to arrive) or networks of cooperative doctors to accurately report cases.

But living in a 'Big Data' age where we post millions of messages to social media every day, Lewis says, offers new opportunities to mine these massive, free datasets to better understand public health.

The researchers incorporated the trends they extracted from the Twitter data into a mathematical model of influenza to model the timing and severity of the <u>flu season</u>.

This model better identified the timing of the peak week and the size of that peak than existing models.

The great thing about their methods, says Lewis, is that they're simple, open-source, and applicable to other trends.

"We're using the same tools to get a glimpse of population-level health,



obesity, and even happiness!" he says.

"In the future we aim to use trends like these to help public health officials make better decisions during the next <u>flu pandemic</u>."

Provided by Freshscience

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