

Scientists analyse global Twitter gossip around Higgs boson discovery

January 23 2013

(Phys.org)—A model of the spread of gossip on Twitter prior to the Higgs boson discovery announcement has been developed by University of Birmingham computer scientists, according to research published on the online repository, *arXiv*.

For the first time scientists have been able to analyse the dynamics of social media on a global scale before, during and after the announcement of a major scientific discovery.

According to the analysed data, the rumours that the [Higgs boson](#) had been discovered started around 1st July 2012, one day before the announcement at [Tevatron](#), and three days before the official announcement from [CERN](#) on 4th July. The research shows that rumours started to spread on Twitter firstly in the USA, UK, Spain, Canada, Australia, as well as Italy, France, Switzerland and Germany, all countries with strong scientific connections to the experiments at the LHC.

'Social media is the manifestation of the real conversation that is going on, perhaps, in this case, when the rumours started, between scientific colleagues and researchers,' said Dr Mirco Musolesi lead investigator from the University of Birmingham's School of Computer Science. 'This is the first time we have had a [scientific discovery](#) of this magnitude during the age of global social media. The model that we have developed to monitor social media can be applied to any event on [Twitter](#). We can therefore understand the dynamics of the event and can predict, in a

given time period, the future evolution of the event. '

Other researchers on the project are also interested in how information spreads on social media and how messages can be placed and controlled. 'If you can understand the dynamics of an event, you can try to control it, and keep the interest in the topic going. It is not only about observations, but also about forecasting and control of future information spreading,' added Dr Manlio De Domenico.

'This is really useful for practical applications such as marketing,' said Mr Antonio Lima, a PhD student also working on this project. 'For example if you want to run a global marketing campaign you can identify key people on social media to help you to spread your message. Once you have identified these key advocates, you can change and steer the message in a different direction, potentially modifying opinions of millions of people. Indeed, this becomes a powerful tool for influencing people's behaviour at global scale. '

Videos of the rumours spreading:

More information: The paper is available at the ArXiv website at arxiv.org/abs/1301.2952

Provided by University of Birmingham

Citation: Scientists analyse global Twitter gossip around Higgs boson discovery (2013, January 23) retrieved 26 April 2024 from <https://phys.org/news/2013-01-scientists-analyse-global-twitter-gossip.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private

study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.