

# Tweet timing tells bots, people and companies apart

July 3 2013

---



Tweet timing can differentiate individual, corporate and bot-controlled Twitter accounts independent of the language or content of a tweet, according to research published July 3 in the open access journal *PLOS ONE* by Aldo Faisal and Gabriela Tavares from Imperial College London, UK.

The researchers studied over 160,000 tweets from personal accounts held by individuals, 'managed' accounts belonging to large, well-known corporations and 'bot-controlled' accounts chosen from online lists of Twitter bots. Periods of high or low Twitter activity and the time between successive tweets could distinguish the three kinds of accounts from one another with approximately 83% accuracy.

Based on the time since the last [tweet](#), the researchers also developed a method to predict when a new tweet would be posted. For individual tweeters, predictions of a next tweet were equally accurate whether the method accounted for working hours or night-time in different time zones and when it did not account for different time-zones.

Perhaps not surprisingly, the study also found corporate-managed accounts tweeted more during work hours, personal accounts were more active in the afternoons and [evenings](#), and bot-controlled accounts either tweeted at regular, constant intervals through the day, or had sudden bursts of activity at one or a few specific hours. Senior author Faisal concludes, "The identification and classification of specific types of users on Twitter can be useful for a variety of purposes, from the computational social sciences, focusing advertisement and [political campaigns](#), to filtering spam, identity theft and malicious accounts."

**More information:** Tavares G, Faisal A (2013) Scaling-Laws of Human Broadcast Communication Enable Distinction between Human, Corporate and Robot Twitter Users. *PLOS ONE* 8(6): e65774.  
[doi:10.1371/journal.pone.0065774](https://doi.org/10.1371/journal.pone.0065774)

Provided by Public Library of Science

Citation: Tweet timing tells bots, people and companies apart (2013, July 3) retrieved 28 April 2024 from <https://phys.org/news/2013-07-tweet-bots-people-companies.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.