New research discovers the emergence of Twitter 'tribes'

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A project led by scientists from Royal Holloway University in collaboration with Princeton University, has found evidence of how people form into tribe-like communities on social network sites such as Twitter.

In a paper published in *EPJ Data Science*, they found that these communities have a common character, occupation or interest and have developed their own distinctive languages.

"This means that by looking at the language someone uses, it is possible to predict which community he or she is likely to belong to, with up to 80% accuracy," said Dr John Bryden from the School of [Biological Sciences](#) at Royal Holloway. "We searched for unusual words that are used a lot by one community, but relatively infrequently by the others. For example, one community often mentioned Justin Bieber, while another talked about President Obama."

Professor Vincent Jansen from Royal Holloway added: "Interestingly, just as people have varying [regional accents](#), we also found that communities would misspell words in different ways. The Justin Bieber fans have a habit of ending words in 'ee', as in 'pleasee', while school teachers tend to use long words."

The team produced a map of the communities showing how they have vocations, politics, [ethnicities](#) and hobbies in common. In order to do this, they focused on the sending of publically available messages via

[Twitter](#), which meant that they could record conversations between two or many participants.

To group these users into communities, they turned to cutting-edge algorithms from physics and network science. The algorithms worked by looking for individuals that tend to send messages to other members of the same community.

Dr Bryden then suggested analysing the language use of these discovered [communities](#).

Dr Sebastian Funk from Princeton University said: "When we started to apply John's ideas, surprising groups started to emerge that we weren't expecting. One 'anipals' group was interested in hosting parties to raise funds for animal welfare, while another was a fascinating growing community interested in the concept of gratitude."

 More information: The paper "Word usage mirrors community structure in the online social network Twitter" is available here: www.epjdatascience.com/content/2/1/3

Provided by Royal Holloway, University of London