

Validating medical information on social media

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Medical information and healthcare advice abound on the internet, both genuine, science-based information as well as spurious and fake. Research published in the International Journal of Web Engineering and



Technology, looks to using a crowd-sourcing approach to the validation of medication information on one particular niche of the internet – the well-known microblogging platform known as Twitter.

Scott Duberstein, Daniel Adomako Asamoah, Derek Doran, and Shu Schiller of Wright State University in Dayton, Ohio, point out that <u>social</u> <u>media</u>, of which Twitter can be said to be one of the popular, can be a very useful place to gather information. However, it remains challenging for the lay person to know whether the information they glean from such a system is valid or whether, in the parlance of the modern political vernacular, it is "fake news". This might not matter so much when the information pertains to <u>celebrity gossip</u>, but it is important in the political realm, and very often a matter of life and death when the subject is medicine.

The team has attempted to develop a system that might automate the validation of information on the internet and specifically Twitter. It utilises the Amazon Mechanical Turk (AMT) crowdsourcing platform and focused, as a proof of principle, on information about <u>major</u> depressive disorder, an important medical condition that is frequently discussed on social media. "The core of our approach entailed the design of a custom survey and the use of a crowdsourcing mechanism to generate a collective understanding and validation of the information collected," the team writes.

The team has demonstrated that it is possible to use crowdsourcing to successfully extract and validate information about a specific medical topic from a platform like Twitter. They suggest that the same approach might be extended to other medical topics, and perhaps beyond and to other platforms that carry a large body of unvalidated <u>information</u> that might be tested and validated or otherwise. Automation of some aspects of the processing would remove the risk of human error at various stages. It might even be possible for the algorithms employed to



differentiate between valid statements and ironic ones that might, with earlier approaches, be confused.

More information: Scott J. Duberstein et al. Finding and validating medical information shared on Twitter: experiences using a crowdsourcing approach, *International Journal of Web Engineering and Technology* (2019). DOI: 10.1504/IJWET.2019.100344

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