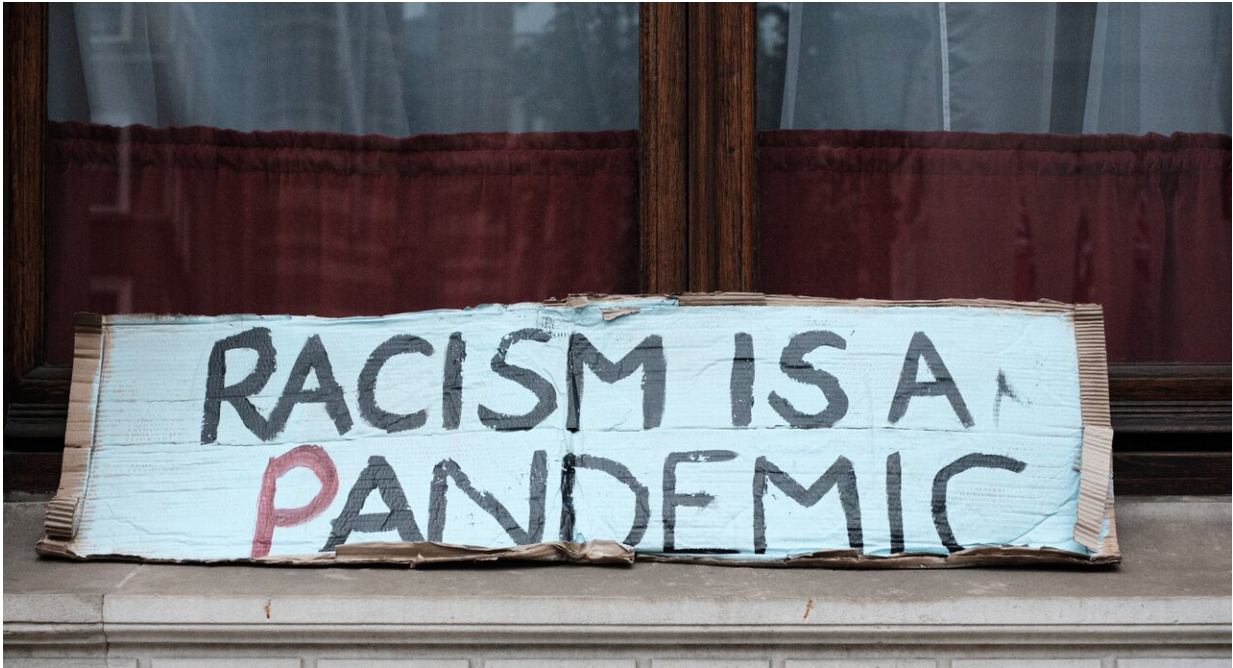# COVID-19-related xenophobia

July 28 2021, by David Bradley

Credit: Unsplash/CC0 Public Domain

A lot of entirely unwarranted anti-Asian sentiment in the U.S. and elsewhere has emerged on social media since the emergence of the COVID-19 pandemic, which had its original source in Wuhan, China, but is a global problem we all must face. Researchers from China and the U.S. have investigated how this xenophobia can be classified on one particularly prominent social media platform, Twitter, with a view to understanding how it might best be addressed.

Writing in the *International Journal of Society Systems Science*, Peng Zhao and Xin Wang of the Big Data and AI Lab, IntelligentRabbit LLC, New Jersey and Xi Chen of the School of Humanity and Law, Beijing University of Civil Engineering and Architecture, suggest that deep learning can be used to investigate public sentiment regarding political opinion and geographical diversity.

The team has developed a new method to classify those Twitter users posting updates with pandemic-related anti-Asian sentiment. They used a novel dataset for tracking users based on 10 million tweets. It was possible to home utilize known sentiment surrounding the US elections and geolocations. "The empirical result indicates that the political sentiments and the county-level election results make significant contributions to the model building," the team writes. They trained a deep neural network (DNN) model with data from more than 190,000 Twitter users and were able to classify their Twitter activity as 'hate' or 'non-hate' with 61% accuracy, the team reports.

Such a classification should be sufficient to guide other classification systems and manual intervention to determine those users expressing xenophobic sentiment. This could then be used to decide whether any given user should be liable for further investigation, suspension, or education. The team points out that anti-Asian sentiment is not confined to the Twitter platform nor is it confined to the U.S., it is seen on all platforms, including Facebook, Instagram, YouTube, and others with comments and posts from around the world. As such, the team adds that extracting features from the other platforms—images, voices, and videos will also be helpful in providing a multidimensional understanding of anti-Asian xenophobia and hate online in the COVID-19 context at the global level.

  More information: Peng Zhao et al, Classifying COVID-19-related hate Twitter users using deep neural networks with sentiment-based

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