Experts to create predictive tool to tackle hate crime in Los Angeles

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Experts from Cardiff University are developing a statistical tool that uses social media to make real-time predictions of where hate crimes may occur.

The team, from the University's Social Data Science Lab, will be using Los Angeles County as a test bed for their study, thanks to over $800,000 in funding from the US Department of Justice.

It is the first time that social media has been used in the United States to create predictive policing models of [hate crime](#).

Over the next three years, the team will be closely scrutinising data taken from Twitter and cross-referencing this with reported hate crimes in Los Angeles to develop markers, or signatures, which could indicate if, and where, a hate crime is likely to take place at a certain point in time, and then enable police officers to intervene.

The term hate crime is used to describe a prejudice-motivated crime, often violent, which occurs when a perpetrator targets a victim because of his or her affiliation to a social group, such as their sex, ethnicity, disability or religion.

According to the US Bureau of Justice Statistics (BJS), in 2012 an estimated 293,800 nonfatal violent and property hate crime victimizations occurred in the United States.

UK official data shows that there were 52,528 hate crimes recorded by the police in England and Wales in 2014/15, an increase of 18 per cent compared with 2013/14.

Previous research from the Social Data Science Lab has already shown that Twitter data can be used to identify hot spots, such as certain states or cities, where hate speech has occurred but where hate crime has not been reported. One example is an area when recent immigrants may be unlikely to report crime due to fear of deportation.

Professor Matt Williams, from the University's School of Social Science, said: "Developing a better understanding of hateful sentiments online and their relationship with crime on the streets could push law enforcement to better identify, report and address hate crimes that are occurring offline.

"The insights provided by our work will help US localities to design policies to address specific hate crime issues unique to their jurisdiction and allow service providers to tailor their services to the needs of victims, especially if those victims are members of an emerging category of hate crime targets."

The Los Angeles Police Department has a history of incorporating progressive and forward-thinking methods into their policing, having previously used mathematical models to predict other areas of crime, which have been shown to successfully lower crime rates.

The huge volumes of data that social media now generates has provided researchers with large swathes of information that can be used to identify emerging patterns and trends in a number of areas across society, including crime.

Dr Pete Burnap, from the University's School of Computer Science and

Informatics, said: "This is the first study in the United States to use [social media](#) data in predictive policing models of hate crime. Predictive policing is a proactive law enforcement model that has become more common partially due to the advent of advanced analytics such as data mining and machine-learning methods.

"New analytic approaches and the ability to process very large data sets have increased the accuracy of predictive models over traditional crime analysis methods and this project will evaluate if police departments can leverage these new data and techniques to reduce hate crimes."

Provided by Cardiff University