Gauging the risk of fraud from social media

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Are there indicators of whether people present an increased risk of fraudulent behaviour? This is a question that fascinates Dr Maurice van Keulen, a researcher at the University of Twente's Centre for Telematics and Information Technology (CTIT). His focus here is not on official data held by the Tax and Customs Administration, the municipal authority and the Centre for Vehicle Technology and Information (RDW), for instance, but on personal information gleaned from people's online activities. On this subject his degree candidate Henry Been has

carried out a promising research project into linking Twitter accounts to people. Been is to be awarded his MSc for this work on 18 June.

In order to detect fraudulent behaviour, such as falsely claiming a rent allowance or social security benefit, the Ministry of Social Affairs and Employment links up data from various government agencies, for example on the number of children a person has, whether they are married and what car they drive.

Risk of fraudulent behaviour

By linking up all the data the Ministry develops a profile for the person, but at the moment this does not adequately predict whether they actually present an increased risk of fraud. Dr Maurice van Keulen wants to change all that, as he explains: "I believe that if we can add personal information on people gleaned from social media to the factual data held by government agencies we shall be better able to gauge the risk of fraudulent behaviour."

Snoopy24

A good deal of obstacles still need to be overcome before information from social media can be used. Dr van Keulen goes on: "The first issue that needs to be resolved is whether you can link social media accounts to the right people. In other words, is Snoopy24 really Mr Jansen of Utrecht's Twitter account? Henry Been, a student of Information Technology at the University of Twente, carried out an initial study.

Been recounts: "My study shows that it is possible to link people to their Twitter accounts. I've developed an IT system for this purpose based on personal data such as name, language spoken and address. Using this it has proved possible to find a limited number of candidates from the

hundreds of millions of [Twitter accounts](#) – usually about twenty – including the right person. I haven't managed yet to actually link a single person to a single Twitter account, but that's mainly a question of time and further research."

Ethical aspects

Henry Been also looked into the ethical aspects of his research. He has written a paper on the subject in collaboration with Dr Aimee van Wijnsberghe, Ethics Adviser to the University of Twente's Centre for [Telematics](#) and Information Technology (CTIT). Together they came to the conclusion that both Been's method and the use of his system to combat fraud can be justified ethically. Been comments: "Van Wijnsberghe and I looked into the data collection context, reasonable expectations of privacy and the intended purpose, among other things. We concluded that people's privacy is reduced, but the purpose makes it ethically justifiable, as combating fraud is in everyone's interests."

Follow-up

Given the results of Been's research, Van Keulen would like to broaden out the research, which is currently taking place as part of the COMMIT research programme. Dr van Keulen explains: "The next step is to obtain additional research funding so that I can appoint a PhD student to continue the collaboration with the Inspectorate SWZ of the Ministry of Social Affairs and Employment.

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