



YCCSA Seminar Series Summer 2017

An interdisciplinary seminar series hosted by the York Centre for Complex System Analysis aimed at researchers from all disciplines

Social network analytics for identifying vulnerable children

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Ron Cooke Hub, RCH/204 at 13:30

Abstract:

Social network data, for example from phone records, financial transactions, or social contacts, are being increasingly used to improve risk forecasting models worldwide. We have analysed a dataset containing relational data for vulnerable children. The dataset includes societal relationships, such as family members and social contacts, as well as abusive relationships. The aim of this project is to identify network characteristics that are associated with children at high levels of risk. Network characteristics tested include degree, clustering coefficient, and the number of certain categories of individual within a child's neighbourhood of the network.

We developed a statistical model using these variables that can predict risk level with reasonable accuracy, although care needs to be taken to ensure that predictions are made from viable information. This has the potential to improve risk forecasting models used by public service departments, as well as provide an additional, real-time information stream for social workers making decisions about whether to escalate specific cases.

The seminar includes a refreshment break

Ron Cooke Hub is on Heslington East Campus – accessible by free bus services

Nos. 66 and 44 running at frequent intervals from Heslington West.

The YCCSA Seminar room is on the second floor