Presentation Abstract

Assessing psychosis risk using quantitative markers of transcribed speech

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Abstract

There is a pressing clinical demand for tools to predict individual patients' disease trajectories for schizophrenia and other conditions involving psychosis, however to date such tools have proved elusive.

Behaviourally and cognitively, psychosis expresses itself by subtle alterations in language. Recent work has suggested that Natural Language Processing markers of transcribed speech might be powerful predictors of later psychosis (Mota et al 2017, Corcoran et al 2018), for example, Corcoran et al 2018 used quantitative markers of semantic coherence collected at baseline from individuals at clinical high risk for psychosis, to predict transition to psychosis with 79% accuracy.

However, it remains unclear which NLP measures are most likely to be predictive, how different NLP measures relate to each other and how best to collect speech data from patients. In this talk, I will discuss our research tackling these questions, as well as the wider challenges of translating this type of approach to the clinic. Ultimately, computational markers of speech have the potential to transform healthcare of mental health conditions such as schizophrenia, since they are relatively easy to collect and could be measured longitudinally to quickly identify changes in patients' disease trajectories.

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