



Mathematical Biology Seminar

Monday, February 14, 2022

3 pm MST (Virtual)

Join Zoom Meeting

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Meeting ID: 915 8083 8150

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Harnessing AI and big data techniques to compare public sentiment toward COVID-19 vaccines across Canadian cities and nowcast unemployment during COVID-19

During different phases of the COVID-19 pandemic, real-time delivery of reliable and comprehensive information is critical to predict its spread and impacts, and to guide governmental policies and best practice. Artificial Intelligence (AI) and big data techniques are playing an important role in helping governments and local communities to contain and manage the spread of the virus and its impacts. Social media enables the rapid consumption of news related to COVID-19 and serves as a platform for discussions. Its richness in text-based data in the form of posts and comments allows researchers to identify popular topics and assess public sentiment. To this end, we employed AI and big data techniques and used location-based subreddits on Reddit to study city-level variations in sentiments toward vaccine-related topics across Canadian cities. Data obtained through these methods could serve as a good basis for establishing targeted and publicly acceptable policies. In addition, we leveraged these tools and twitter data to trace and nowcast the unemployment rate during the COVID-19 pandemic. In this talk I will present the methodology, findings and policy implications of these projects.