Modelling Ambient Populations under Different Restriction Schemes

How have cities changed during the pandemic?

Which changes will remain as the pandemic subsides?

This LIDA project addresses the above questions by building upon previous CDRC-funded work and creating an open-source spatial-temporal machine-learning model to predict overall change in footfall at specific city-centre locations. It also will consider the local urban configuration, external factors (like weather conditions) and, importantly, the heterogeneous impact of various mobility restriction measures. The model is currently being trained using pre-pandemic footfall data provided by the project’s external partner Leeds City Council and different lockdown restriction conditions will be incorporated thereafter.

A functional dashboard is additionally being developed to present related visual outputs i.e. graphs and maps to help policymakers easily explore different scenarios. Although based in Leeds, it is expected that the work will be generalizable to other cities and ultimately, we aspire to attract further funding to construct a nationwide footfall model, which would present as a great methodological advancement and an attractive contribution to furthering the public health and urban developments.

This talk will mainly be an introduction of the project, then a presentation of the work carried out so far led by a discussion of the next steps and plans.