The Contested Access of Immigrants to Public Parks in Toronto
(Spatial Analysis of the Socio-economic Determinants of Accessibility)

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The positive spillovers and the post-access issues of public spaces took the attention of many procedural studies rather than the forces influencing the accessibility itself. Types of public spaces are numerous, and each one has its own reproduction dynamics and accessibility measurements. In this context, immigrants can view accessibility from different perspectives that go beyond the existing measurement tools. In fact, accessibility is not only about how people are physically able to reach a public park but also about how they secure the mental and psychological health for that activity, and sense comfortableness by the design of the park. Hence, there are numerous visible and invisible variables that can either hinder or support immigrants' accessibility to the healthy-built environments including parks.

To provide an understanding of the issue, the study will implement three phases of GIS and statistical analysis at Toronto's Census Tract (CT) geographic level. First, the study will apply the General Linear Model of Factor Analysis and the grouping of the Principal Component Analysis (PCA) to reduce over 60 social, economic, health, and lifestyle variables to 12 variables loading with the Physical Activity Index, which is proved to be directly proportional to access to parks. Second, based on the new set of variables, K-means tool will be used to assign cases to clusters to capture accessibility differences per immigrants' social and economic segmentation. Lastly, the study will design a weighted model for parks' attributes with the aim of running a Location-allocation exercise that can provide insights on the location-convenience of high-score parks in relation to the centroids of immigrants-majority residential areas. The importance of this study comes in grounding spatial analysis and statistical models focused on immigrants' accessibility to public parks, that can help in conducting further mixed-method/qualitative studies.

Biography
Ibrahim Ghanem is a Spatial Data Analyst who is specializing in the fields of social information analysis and access to public services/spaces. Before starting his Master of Spatial Analysis at Ryerson University, Ibrahim worked for six years at the United Nation office in Egypt, in implementing urban upgrading and economic development projects that targeted enhancing accessibility to spaces, generating economic opportunities, and creating peaceful coexistence among the refugees' communities and the host community.

In his career and education tracks, Ibrahim is keen to learn from people, social researchers, and urban planners. He is interested in topics related to lifelong learning pathways, humanizing data, economic inclusion, and empowerment of marginalized communities.