Accessibility Analysis in Singapore: from the perspective of Big Data

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Abstract

Accessibility is a fundamental component in evaluating the current land-use layouts and transportation services, predicting travel demands and providing suggestions in urban transportation planning. In this research, not only the traditional GIS-based approaches will be employed to do the analysis, but also the true public travel card data of individual trips on Singapore's public transportation system, as one kind of big data, will also be utilized to bring us another horizon of the transportation accessibility in current Singapore. The integration of the traditional analysis and the new vision of big data undoubtedly can bring us more comprehensive and sensitive understanding of the Singapore's public transportation system, which could provide quicker and more in-depth suggestions for the decision makers to better and more efficiently improve the whole public transportation system services by adjusting the frequency and schedule of the trains/buses, or even initiating the new bus/train lines or selecting or moving the bus/train stations.

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