

A Review of Spatial Analysis as a Geographic Information Management Tool

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Abstract : Spatial analysis is a field of study that utilizes geographic or spatial information to understand and analyze patterns, relationships, and trends in data. It is characterized by the use of geographic or spatial information, which allows for the analysis of data in the context of its location and surroundings. It is different from non-spatial or aspatial techniques, which do not consider the geographic context and may not provide as complete of an understanding of the data. Spatial analysis is applied in a variety of fields, which includes urban planning, environmental science, geosciences, epidemiology, marketing, to gain insights and make decisions about complex spatial problems. This review paper explores definitions of spatial analysis from various sources, including examples of its application and different analysis techniques such as Buffer analysis, interpolation, and Kernel density analysis (multi-distance spatial cluster analysis). It also contrasts spatial analysis with non-spatial analysis.

Keywords : aspatial technique, buffer analysis, epidemiology, interpolation

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