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An Empirical Investigation of Common Sense of Land Use from a Statistical Approach

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ABSTRACT

Recently, ontological study has been one of the key concerns of geographic information science, a number of studies have been conducted in both of philosophical and knowledge engineering approach. Some studies pointed out the importance of human cognition and social context for development of ontologies. This paper presents empirical investigation of common sense of land use categories for development of suitable ontologies for each cultural or speech communities. Distinctions and characteristics in perceiving land use categories were described by a psychological method that was submitted to Japanese graduate and undergraduate students. In addition the results were analyzed using correspondence analysis, a statistical technique for categorical data. This analysis serves to clarify the dominant determining factors for land use categories.

KEYWORDS

Empirical Investigation; Land Use Category; Common Sense; Ontology

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