

Route Direction Structure Diagrams

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Abstract

Route directions are a window to people's mental representation of space. They highlight problems in conceptualizing a space, for example, areas that are complex and difficult to grasp. Analyzing the structure of route directions helps revealing such difficulties in an environment's conceptualization and allows comparing two different route directions for the same route with respect to their (ease of) conceptualization. In our research, we aim for a formal framework of the interplay between a spatial environment and its conceptualization in wayfinding and, based on this, for generating means of wayfinding assistance that respect for this interplay by, for example, adapting to the route and environment's characteristics. In this paper, we concentrate on so called *Route Direction Structure Diagrams*, which allow to visually analyze route directions' structure on different levels.