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Spatial Navigation within Hypertext Systems

Navigation is the activity by which a user can build a mental representation of the content and the formal structure of hypertext information sites. According to the existing literature, disorientation and cognitive overload seem to be the most fundamental difficulties which the users undergo during the navigation. Those phenomena, the multiple levels of treatment and the embedment of the activity into spatial metaphors, nourish the assumption that hypertext exploration involves cognitive competencies similar to those necessary for orientation in the physical environment, and that the user elaborates a cognitive map of hypertext structure. Through this article, we show how the theories and the empirical results on spatial cognition, comprehension of language, spatial texts and metaphors support the theory on the implication of the cognitive task of route search during hypertext navigation. We also revise the empirical results concerning the hypertext navigation performance, acquired during the last fifteen years.

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