



A Probabilistic Semantics for Cognitive Maps

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Résumé en anglais	Cognitive maps are a graphical knowledge representation model that describes influences between concepts, each influence being quantified by a value. Most cognitive map models use values the semantics of which is not formally defined. This paper introduces the probabilistic cognitive maps, a new cognitive map model where the influence values are assumed to be probabilities. We formally define this model and redefine the propagated influence, an operation that computes the global influence between two concepts in the map, to be in accordance with this semantics. To prove the soundness of our model, we propose a method to represent any probabilistic cognitive map as a Bayesian network.
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- [11] <http://okina.univ-angers.fr/publications/ua15280>
- [12] http://dx.doi.org/10.1007/978-3-319-25210-0_10
- [13] http://link.springer.com/chapter/10.1007%2F978-3-319-25210-0_10

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