NEW APPROACH FOR TOPIC SEGMENTATION OF RAILWAY TEXT

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ABSTRACT

We suggest in this paper a new approach for topic segmentation of railway textual documents which is based both on domain ontology and neural networks (Hopfield’s networks) with Topic Quantity of Information as value of the spin magnitude in the network. Our approach incorporates also a discursive analysis of the text to further improve the results. We present also our automatic system SeThemO (Thematic Segmentation-based Ontology) which implements this approach. Finally, we evaluate its effectiveness by using a text corpus formed by concatenated sections dealing with different railway topics.

KEY WORDS: Domain Ontology, railway, neural networks, Hopfield networks, topic borders, topic segmentation, discursive analysis.