An Intelligent Tool for Building E-Learning Contend-
Material Using Natural Language in Digital Libraries

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Abstract: - In this paper is developed an intelligent searching tool using the Self-
Organizing Map (SOM) algorithm, as a prototype e-content retrieval tool. The
proposed searching tool has the ability to adjust and scale into any e-learning platform
that requires concept-based queries. The SOM algorithm has been used successfully
for the document organization as well as for document retrieval. In the proposed
methodology, maps are used for the automatic replacement of the unstructured, the
half structured and the multidimensional data of text in such a way that similar entries
in the map are represented near between them. The performance and the functionality
of the document organization and retrieval tool employing the SOM architecture, is
presented. Furthermore, experiments performed to test the time performance of a
learning algorithm used for the direct creation of teams of terms and texts enabling
efficient searching and retrieval of the documents.