Abstract

Case Based Reasoning (CBR) is an intelligent way of thinking based on experience and capitalization of already solved cases (source cases) to find a solution to a new problem (target case). Retrieval phase consists on identifying source cases that are similar to the target case. This phase may lead to erroneous results if the existing knowledge imperfections are not taken into account. This work presents a novel solution based on Fuzzy logic techniques and adaptation measures which aggregate weighted similarities to improve the retrieval results. To confirm the efficiency of our solution, we have applied it to the industrial diagnosis domain. The obtained results are more efficient results than those obtained by applying typical measures.

References

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Index Terms

Computer Science
Artificial Intelligence

Keywords
CBR  Retrieve  Fuzzy logic  Adaptation  knowledge imperfections