

Editorial

With this issue we are starting a new journal on topics in Case-Based Reasoning (CBR). Special emphasis is given to work on multimedia data but the content of the journal is not limited to this work. Theoretical work as well as application-oriented work is welcome to this journal. Over the last decade CBR has shown its high potential for building real-world systems. The CBR community can look back to many successfully solved applications over the past decade. Our hope is to promote more extensive research on CBR with this journal.

The first issue features work on 1-dimensional signal analysis and 2-d map data.

The first paper deals with a case-based reasoning system for stress diagnosis in medicine which is capable of coping with both numerical signals and textual data at the same time. For matching of cases on the signal aspect it is presented a fuzzy similarity matching metric to accommodate and tackle the imprecision and uncertainty in sensor measurements. For evaluation of similarity on the textual dimension it is proposed an enhanced cosine matching function augmented with related domain knowledge.

The second paper focuses on adaptation for a military scenario represented as 2-d location map. A Visualization induced Self Organizing Map (ViSOM) is used to map the problem space and solution space first, then a Back Propagation (BP) network is applied to analyze the relations between these two maps.

The third paper deals with the detection of risks of procurement fraud. It was developed within the context of a European Union project on fraud prevention. The approach presented here is based on the idea to learn a similarity measure that compares an employee (or payroll) standing-data record to a creditor record, in order to detect creditors that are suspiciously similar to employees.

In summary we can say that the first issue focuses on two hot topics in CBR: similarity and adaptation. The first and the third paper are giving the similarity aspect broad attention. Similarity metric learning is the issue in the third paper while adaptation is the special topic in the second paper.

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Editor