

## AIMS AND SCOPE

The International Journal "Transactions on Case-Based Reasoning for Multimedia Data" is a periodical appearing twice a year.

Multimedia systems are becoming increasingly popular in medical, industrial, ecological, biotechnological and many other application domains. Multimedia data includes signals of 1-dimensional, 2-dimensional or 3-dimensional nature, video, audio, text, trajectories, and data streams. Existing statistical and knowledge-based techniques to analyse and interpret these signals lack robustness, accuracy and flexibility. New strategies are needed that can adapt to changing environmental conditions, signal variation, user needs and process requirements. Applying Case-Based Reasoning (CBR) strategies in multimedia data interpreting systems can help satisfy these requirements. CBR can be used to control signal processing in all phases of an interpreting system to derive information of the highest possible quality. Beyond this, CBR supports different learning capabilities throughout the signal interpretation process that satisfy different needs during the development phase of the system. The unique data and the necessary computation techniques require extraordinary case representations, similarity measures and case-based reasoning strategies to be utilised. This journal focuses on specific topics related to CBR on multimedia data.

Topics of interest include (but are not limited to):

- CBR for signals, images, video, audio and text
- Similarity assessment for signals, images, video, audio, and text
- Case representation and case mining for multimedia data
- Retrieval and indexing of signals, images, video, audio and text
- Conversational CBR for multimedia retrieval systems
- Meta-learning for model improvement and parameter setting for processing with CBR
- Incremental model improvement by CBR
- Case base maintenance for systems with multimedia data
- Case authoring
- Life-time of a CBR system
- Measuring coverage of case bases
- Analogical reasoning for computer vision, signal processing and others
- CBR in robot navigation
- CBR for medical applications using multimedia data
- CBR for biotechnological applications using multimedia data
- CBR for chemical applications using multimedia data
- Ontology learning with CBR
- CBR for image processing applications
- CBR for video application