

## Preface

The results of research in diverse areas of media processing are starting to be integrated to form systems for intelligent multimedia knowledge management. Systems of this type will be able to perform many sophisticated knowledge management activities, for example extracting information from various media such as text, speech and video, and integrating it to form alternative enriched media streams.

Applications for which intelligent multimedia knowledge management systems might be developed include:

- Education, e.g. through integrating aural and visual presentations with personal notes and external information resources.
- Entertainment, e.g. by automatically annotating television and video material with related information of featured individuals or events.
- Business, e.g. by automatically providing additional relevant information during meetings.
- Research, e.g. via knowledge discovery and integration from different sources.

The component technologies required by these systems include some or all of information retrieval, information extraction, speech recognition, video and image analysis, summarization, agent technologies, multilingual systems, database systems and information visualization. For example, extraction of information from multimedia data requires the development and integration of robust information extraction methods for event detection and named entity recognition with spoken transcripts and can be integrated with information derived from video streams. Thus rather than merely trying to locate documents, intelligent knowledge management seeks to further integrate technologies to actually mine knowledge from documents and automatically make use of it.

The papers in this report are taken from presentations made at the 2003 AAAI Spring Symposium on Intelligent Multimedia Knowledge Management. The symposium follows on from the successful 1997 AAAI Spring Symposium on Intelligent Integration and Use of Text, Image, Video, and Audio Corpora. The symposium aimed to bring together researchers interested in current developments. The meeting considered the areas where progress has been made in the last 6 years and what existing challenges remain unsolved, and sought to identify emerging new challenges and how progress might be made in addressing them.

Gareth J. F. Jones  
University of Exeter