Primary Category: Informatics
Secondary Category: Education/MIRC

Image Retrieval in Medicine: The ImageCLEF 2009 Challenge
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PURPOSE/AIM

The purpose of this exhibit is to:

1. Introduce content-based image retrieval (CBIR).
2. Provide an overview of the ImageCLEF 2009 challenge evaluation, part of the international Cross-Language Evaluation Forum (CLEF) research program.
3. Describe applications of ImageCLEF's results to radiology.

CONTENT ORGANIZATION

1. Medical image retrieval: needs and goals.
2. Image retrieval methods, including text-based, concept-based, and image content-based retrieval methods.
3. History and overview of ImageCLEF image retrieval challenge and the Cross-Language Evaluation Forum (CLEF) campaign
4. Relevance to radiology: techniques to find images published in *Radiology* and *RadioGraphics*.
5. Potential applications.

SUMMARY

Medical images can be retrieved using their contents (e.g., a visual exemplar) and/or textual metadata. The ImageCLEF challenge defines robust, standardized test collections of images and realistic query tasks to evaluate multilingual image retrieval. The ImageCLEF 2009 challenge features more than 77,000 images from *Radiology* and *RadioGraphics*. We present an overview of ImageCLEF, describe its relevance to the field of radiology, and identify potential medical applications.