COLING-ACL '98

Workshop on

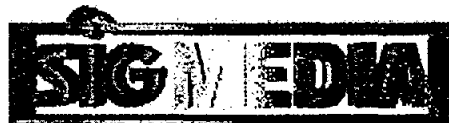## Content Visualization and Intermedia Representations (CVIR'98)

August 15, 1998

University of Montreal

Montreal, Quebec, Canada

Co-chairs

James Pustejovsky, Brandeis University

Mark T. Maybury, The MITRE Corporation

Co-Sponsored by ACL's SIGMEDIA

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Preface

In the last few years, multimedia systems have emerged which exploit multiple media (e.g., text, graphics, speech and non-speech sound, and animation) as well as multiple modalities associated with human perceptual processes (e.g., auditory, visual, haptic). Many different communities are exploring such systems (e.g., hypermedia, human-machine interaction, information retrieval, scientific visualization, content extraction, dialog tracking), each with distinct concerns and goals but often unaware of each other's research and methods.

This workshop aims to bring together these communities to examine questions focused around the visual presentation of diverse content through multiple media. The major goal is to explore common intermedia representation languages which are expressive enough to cover diverse modalities yet suitably appropriate for the individual media.

With increasing amounts of data, information, and knowledge available to the user, the effective use of visualization is increasingly important in applications. Examples include:

- visualization of data in scientific literature, including support for interactive information retrieval;
- business and finance data visualization (data profiling);
- automated or assisted map, graph, diagram, or image construction from text or data;
- event, process, and knowledge editing and visualization tools;
- and knowledge navigation over databases, texts, and search results.

The specific issues addressed by the workshop include but are not limited to:

- Definition of Content: different disciplines and applications have distinct perspectives on what content is, e.g., of structured data, text, video, graphics, collections of interactions or correspondences.
- Knowledge Representation: i.e., what it is, how to represent it, reason about it, and present it.
- Taxonomies of content representations, tasks, and visualization artifacts.
- Representations for content and how these relate to and/or facilitate visualization tasks.
- Selection and Organization of Content: Deciding what to present and how to organize the presentation of selected content and why (i.e., effect).
- Deciding how to coordinate the presentation of content through several media.
- The relationship of cognitive task to visualization content and style (e.g., visualization structure, properties, form, coherency, interpretability, and accuracy of displays).
- Deciding how to accept and integrate input from several media.
- Medium-specific and medium-independent encoding of content.
- Presentation and interaction techniques of generated results.
- Tailoring visualizations to specific user and usergroup characteristics, knowledge, and interests.
- Content visualization evaluation metrics and methods.

The present workshop has been co-sponsored by COLING-ACL and SIGMEDIA (ACL's special interest group on Multimedia Language Processing). We would like to thank the members of the Program Committee for their service in reviewing the submission. They include: Elisabeth André, Branimir Boguraev, Steve Feiner, Michael Johnston, Steve Roth, Wolfgang Wahlster, and Kent Wittenburg. We would also like to thank Pierre Isabelle, Pete Whitelock and Paula MacDonald for their help in preparing the documents and procuring the facilities and food services at the conference.

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and Information Extraction

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