

Synergistic Combinations of Multimedia Analysis Technologies

- Achieving archiving performance exceeding that possible with any of the technologies on their own.
- User can mix and match SRI and other analysis technologies using the simple Maestro input format.

Example: Identifying British Prime Minister Tony Blair in the News

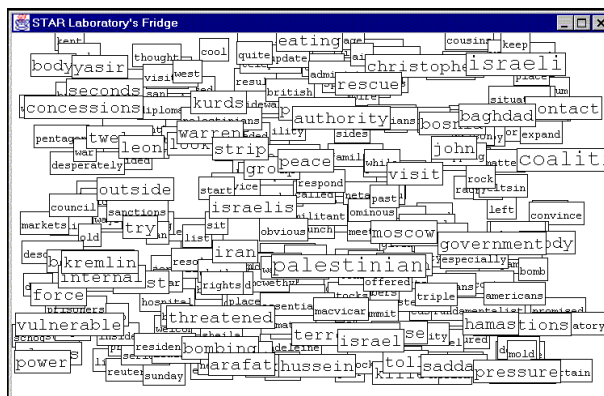
- Speech Recognition recognizes news anchor saying, “British Prime Minister Blair said...”.
 - Natural Language Processing (NLP) identifies “British Prime Minister Blair” as the name of a person.
 - OCR, driven by a lexicon of names from NLP, reads the overlay caption recognizing “Tony Blair”.
 - Speaker Tracking identifies the Prime Minister’s speech as ‘speaker 4’.
- **Person in image and speaker 4 are identified as “Tony Blair”.**

Archiving and Retrieving in Maestro

- Archiving via statistical language modeling applied to text output from speech recognition.
- Maestro *automatically* determines salient keywords useful for discriminating between video clips.
- Keywords are displayed for use in archive voice querying (larger words are more salient).

Maestro uses SRI’s Open Agent Architecture™ (OAA®) to dynamically coordinate system components distributed across different platforms and locations.

Keyword Display



Future Directions

- Implementing more synergistic multimedia analysis technology combination strategies.
- Porting to new domains, such as meeting archiving.
- Further improving SRI International’s state-of-the-art multimedia analysis technologies.

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