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Human Language Technology in Tomorrow's Search Applications

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The Role of LT in Tomorrow's Search Engines



■ Basic language technology

- Morphology, stemming etc.



■ Structural analysis

- Part-of-Speech
- Semantic annotation, entity extraction



■ Challenges

- Co-ref resolution, fact extraction
- Cross-lingual search
- Application integration



LT as the Interface to Search



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Bill Gates sees keyboards as relics

THE ASSOCIATED PRESS

Saturday, February 23rd 2008, 4:00 AM

People will increasingly interact with computers using speech or touch screens rather than keyboards, Microsoft Chairman Bill Gates said Friday.

"It's one of the big bets we're making," he said during the final stop of a farewell tour before he withdraws from the company's daily operations in July.

In five years, Microsoft expects more Internet searches to be done through speech than through typing



Really?

- Type while you phone?
- Type and draw technical documents?
- With 3 people in an office?
- For 1-word-queries?

But, YES,

- While driving my car
- While working in an operating theatre
- To control my home cinema

➔ So, yes, for specific "niches"

- Question Answering
- Query Refinement
- Relational Information
- Summarization
- Classification
- Cross-lingual search

Yes, because people
want ANSWERS – not
hit lists

True Natural Language Search (in general)?



“NLP Information Retrieval”

VS.

“I am interested in all material about NLP techniques applied to Information Retrieval”

- Well, people adopted to Google.
- Guess what they will go for?!

...Semantic Web technology

- Refer to (my) entities, concepts, facts.

...Real applications

- Search is just middleware (except for Internet search).

...Multimedia search

- Recognize semantics in video streams
- Allow to search private photo collections using LT

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Discussion.

