Interactive CLIR Evaluation

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Evaluation Goal

- Study CLIR users in real task contexts
 - To determine translation requirements
 - And to iterate the design of a good user interface



Target Scenario

- Monolingual user.
- Looking for relevant documents in other languages
- Need to select documents for translation



CLIR Human Factors

- Input issues
 - Help with query formulation
- Feedback issues
 - Help with judging the relevance of documents in foreign languages



Help with query formulation

- Really good query translation
 or other good CLIR techniques
- System assisted query formulation
 - for languages without good translation capabilities.



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| 🧵 🦋 Bookmarks 📣 Location: http://messene.nmsu.edu/ursa/arctos_test/ | • | | | | |
| Keizai: A cross-language interactive retrieval and summarization system English Query bank interest rates Target language Japanese Translate Reset | | | | | |
| bank interest rates | 1 | | | | |
| ✓ 金利: interest rates | CINKS . | | | | |
| 口分: dividing;part;segment;share;ration;rate;degree;one's lot;one's status;relation;duty;kind;lot;branch (pref);detached | | | | | |
| □ 銀行: bank | | | | | |
| □ 証券: issuing bank# securities | | | | | |
| □ 得: profit (vs);gain;interest | | | | | |
| 口割: rate;ratio;proportion;percentage;profit;assignment;10%;unit of ten percent | | | | | |
| 口 率: rate (suf);ratio;proportion;percentage | | | | | |
| □ 預金: deposit (vs);bank account | | | | | |
| □料: material;charge;rate;fee | | | | | |
| 口 金融機關: banking facilities | | | | | |
| $\mathbf{\nabla} \mathbf{b} - \mathbf{b}$: rate | | | | | |
| 「利: advantage;benefit;profit;interest | | | | | |
| □ 日銀: Bank of Japan | | | | | |
| 口割合: rate;ratio;proportion;comparatively;contrary to expectations | | | | | |
| ☑ 利息: interest (bank) | | | | | |
| 口 残高: (bank) balance;remainder | | | | | |
| Document: Done | | | | | |

CLEF Interactive Experiment

- One monolingual English speaker uses system to generate query terms for all topics for German Italian and French
- Results compared with queries generated using Alta Vista (Systran)



Help with relevance judgments

- Narrative summaries

 e.g. Selected sentences or generated abstract
- Non-narrative summaries

 e.g. Lists of named entities, keywords, search terms etc.
- Graphical
 - e.g TileBars and Thumbnails



Document Thumbnail Views

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Single glance keyword information:

- instances & collocations
- frequencies & distributions
- missing keywords
- Familiar document format enables:
 - easy interpretation
 - locating relevant text

What to translate?

- For a sample of topics and top *n* ranked documents:
 - Ask what textual elements are used to determine relevance. (could find a range)
 - Estimate the cost of translating elements.
 - Test range of summaries with document selection task.



Open Issue

- How to do interactive evaluation in a general way.
 - Probably cannot but need to isolate individual components in the interaction that are general enough (e.g document selection).
 - Issue then is: Will this be of general enough interest to the larger community?

