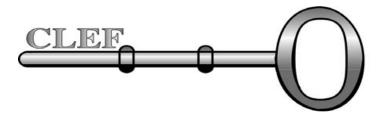




IZ

## The GIRT task of CLEF 2004



Michael Kluck (IZ)

#### **GIRT Testdatabase**

 German Indexing and Retrieval Testdatabase containing German social science data

■ **1997** GIRT1 13.000 documents internal tests

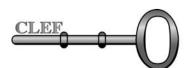
■ 1998/99 GIRT2 38.000 documents TREC

**2000/02** GIRT3 76.000 documents CLEF

■ 2003/04 GIRT4 151.319 documents DE CLEF

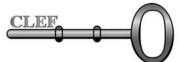
151.319 documents EN CLEF

>paper on GIRT history in 2003 proceedings



# GIRT4 German-English Parallel Corpus

- 151,319 single documents in 2 languages:
  - Original documents in German
  - Translations into English
- equal distribution German/English:
  - **Title**: 1 per document
  - **controlled indexing terms**: ca. 10 per document
  - Classification text: ca. 2 per document
- different distribution German/English:
  - Abstract (short text, summary)
    - DE nearly each document
    - EN 15% of the documents
  - ⇒ reduced textual extent of the English Part



#### **GIRT Tasks in CLEF**

### Monolingual Task

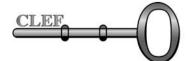
- DE Topics -> DE Data
- EN Topics -> EN Data

## Bilingual Task

- EN or RU Topics -> DE Data
- DE or RU Topics -> EN Data

#### additional instruments

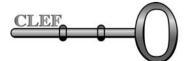
- German-English thesaurus
- German-Russian term list



# Participation in 2004

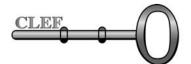
## 4 groups

- Berkeley, University of California (USA)
- University of Hagen (Germany)
- IRIT, University of Toulouse (France)
- Ricoh (Japan)



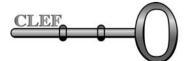
# **GIRT4** runs by 4 participants

Data	Topic language	Judged runs	1	
		2004	2003	
GIRT4 DE	DE	8	(13)	Mono-lingual
GIRT4 EN	EN	7	(4)	15 (17)
GIRT4 DE	EN	6	(1)	Bi-lingual
GIRT4 DE	RU	0	(2)	16 (5)
GIRT4 EN	DE	10	(1)	
GIRT4 EN	RU	0	(1)	
sum		31	(22)	



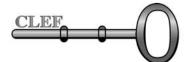
# **Main Approaches**

- Retrieval: NLP, neural network, logistic regression, probabilistic
- Use of IZ thesaurus (once): thesaurus matching, entry vocabulary module
- Use of WordNet (twice)
- Other: stemming, decompounding, stop words, semantic networks



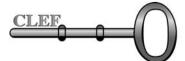
#### **Assessment of GIRT4**

- 18,292 (17,031) docs assessed increase of 7 % (65 %) compared to 2003 (2002)
- Separately German and English part by two assessors (each per language)
- ■18,292 hits for 25 topics ➤ 732 hits per topic
- 16 % judged as actually relevant (2003: 20 %)
  min. 0.6 % (n= 3), max. 57 % (n= 232) per topic



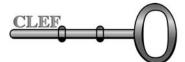
#### **Assessment in detail**

- The search results in the different language parts have not been congruent
- Only for 2 topics an identical number of hits
  German / English
- 10% of hits show pairs of corresponding relevant documents
   German / English
- 16 % of hits show pairs of non-relevant documents German / English
- Overlap German / English results is 26 %



# Comparison of judgments

- in 1.86% cases (n= 340) divergent judgments for corresponding DE/EN
- > re-assessment of these documents
  - > 35% real mistakes (n=120)
  - > 44% new interpretation of relevance (n=149)
  - > 21% too short text for equal judgment (n=71)
- > Re-assessed docs included in official figures
- > further analysis in proceedings 2004



# **Analysis of individual results**

- Concordance of document numbers of identical documents DE/EN available
- For specific topics: participants and IZ work together in analysing
  - failure of delivering the corresponding document pairs DE/EN for bi-lingual runs
  - failure of delivering known relevant documents for mono-lingual runs

