GeoCLEF: the CLEF 2005 crosslanguage geographic information retrieval track

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Overview

- GeoCLEF run as a pilot track in 2005
- Aim: to evaluate retrieval of multilingual documents with an emphasis on geographic search (GIR)
 - "find me news stories about riots near Dublin"
- Many documents contains geo-references expressed in multiple languages
- Standard IR systems (and evaluations) pay little attention to spatial aspects of queries and documents

GeoCLEF

- Document languages: English and German
- Topic languages: English (En), German (De), Portuguese and Spanish
- Two ad-hoc retrieval tasks
 - Monolingual (En → En; De → De)
 - Bilingual (X \rightarrow English; X \rightarrow De)
- 12 research groups submitted 117 runs

Document collections

- Existing English and German CLEF collections
 - variety of topics and geographical regions from news stories between 1994/95
- Documents in English (169,477)
 - Glasgow Herald (British) 1995
 - LA Times (American) 1994
- Documents in German (294,809)
 - Der Spiegel 1994/95
 - Frankfurter Rundschau 1994/95
 - Swiss news agency SDA 1994/95

Search tasks

- 25 topics created for GeoCLEF
 - 10 extended from past CLEF topics
 - 7 created based on articles of LA Times
 - 8 created based on Glasgow Herald
- Varied geographic granularity
- GeoCLEF topic structure
 - <concept><spatial relation><location>

Example topic (1)

```
<qo>>
<num> GC001 </num>
<orignum> C084 </orignum>
<EN-title>Shark Attacks off Australia and California</EN-title>
<EN-desc> Documents will report any information relating to shark
attacks on humans. </EN-desc>
<EN-narr> Identify instances where a human was attacked by a
shark, including where the attack took place and the circumstances
surrounding the attack. Only documents concerning specific attacks
are relevant; unconfirmed shark attacks or suspected bites are not
relevant. </EN-narr>
<!-- NOTE: This topic has added tags for GeoCLEF -->
<EN-concept> Shark attacks </EN-concept>
<EN-spatialrelation>near</EN-spatialrelation>
<EN-location> Australia </EN-location>
<EN-location> California </EN-location>
</top>
```

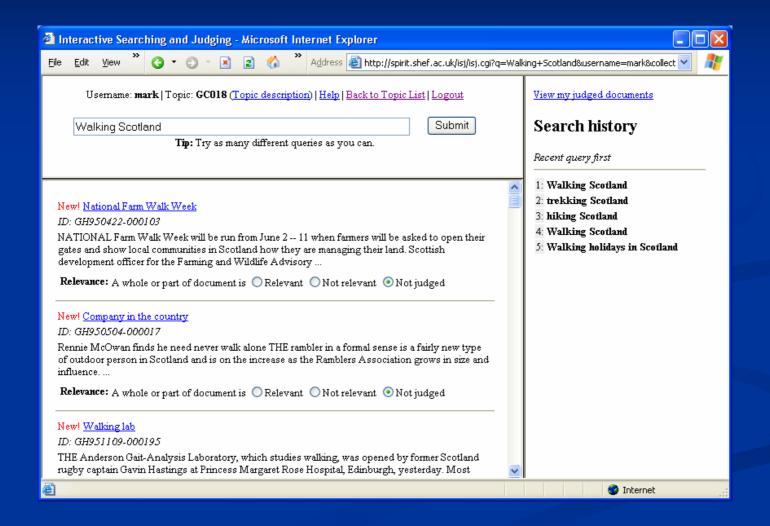
Example topic (2)

```
<top>
<num>GC020</num>
<EN-title>Wind power in the Scottish Islands</EN-title>
<EN-desc>Find documents on electrical power generation using
wind power in the islands of Scotland.</EN-desc>
<EN-narr>A relevant document will describe wind power-based
electricity generation schemes providing electricity for the islands of
Scotland.</EN-narr>
<EN-concept>Wind power</EN-concept>
<EN-spatialrelation>in</EN-spatialrelation>
<EN-location>the Scottish Islands</EN-location>
</top>
```

Relevance assessments

- Shared between sites
 - Sheffield (topics 18-25 English)
 - Berkeley (topics 1-17 English; 1-25 German)
- Berkeley used conventional pool approach
 - Top 60 documents used from all submissions
- Sheffield used ISJ
 - 17 students and the authors performed searches
- Qrels created from overlap between sites

ISJ system used in GeoCLEF



ISJ system used in GeoCLEF

