How geographic was GikiCLEF?  
A GIR-critical review

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GikiCLEF in a nutshell (1)

- Asking open list questions to Wikipedia  
- A difficult task for people and for computers  
- A realistic situation where crosslingual and multilingual skills may be of real interest  
- http://www.linguateca.pt/GikiCLEF  
- A merger of QA and GIR, a follow-up of the GikiP pilot  
- 10 Wikipedia collections, 50 culturally motivated topics  
- 8 participants in 2009

Examples of GikiCLEF-like systems in use

- In the middle of a football match on TV in a foreign station  
  - What south American countries have yellow in their football team?  
    - Brazil  
    - Colombia  
    - Ecuador

- Where was this American museum which had a Picasso painting on which we saw that program last Winter?  
  - Which American museums have Picasso works?  
    - Museum of Modern Art (MOMA)  
    - Museum of Fine Arts (Boston)  
    - Solomon R. Guggenheim Museum  
    - Metropolitan Museum of Art  
    - National Gallery of Art  
    - Art Institute of Chicago  
    - Denver Art Museum  
    - (...)

Examples of GikiCLEF-like systems in use

- Which Romanian poets published volumes with ballads before 1931?  
  ... which may have influenced Mircea Eliade? Preliminary research for a MA Thesis in Romanian literature...  
  - Dimitrie Bolintineanu  
  - Vasile Alecsandri  
  - Elisabeta de Neuwied  
  - George Căpâlnescu

The task as seen by a participant system

- In order to provide a correct answer, a system had to produce justification in at least one of the languages returned  
- Even if correct, an answer would not be rewarded in GikiCLEF if its correctness were not possible to assess by a human reader  
- Justification might be in the page itself, or in a set of other pages provided together  
  - Example question: Name places where Goethe fell in love.  
  - Example answer: Leipzig. But in the article about Leipzig this is not stated ☺  
  - One correct answer is Leipzig. But in the article about Leipzig this is not stated ☺  
  - Where to find the justification? In "Johann Wolfgang von Goethe" page we find the following excerpt: "In Leipzig, Goethe fell in love with Käthe Schönkopf and wrote cheerful verses about her in the Rococo genre."  
  - Correct and justified GikiCLEF answer: Leipzig, Johann Wolfgang von Goethe
Results from the topic group work (1)

- 14 people (Corina Forascu, Pamela Forner, Danilo Giampiccolo, Katrin Lamm, Thomas Mandl, Petrya Osenova, Anselmo Peñas, Erik Tjong Kim Sang, Diana Santos, Julia Schulz, Yvonne Skalbn, Alvaro Rodrigo Yuste + Paula Carvalho, Christian-Emil Ore) gathered 70 (-> 50) “culturally-laden” topics
  - Some of them cross-cultural, in fact (like the influence of Italy in Hemingway or the spread of Picasso’s influence in the American continent)
  - Most around themes such as thinkers/writers/famous people, and of course places

Expected answer type distribution of the 50 topics

Language/culture bias of topics

- Although we had eight non-English languages and one at least of each in the topic group, the culture bias was not uniformly distributed

Geographical distribution of topics

Results from the topic group work (2)

- How much insight did the topics gathered provide in terms of displaying truly geographical cross-cultural problems?
  - Alps are subdivided differently in different countries/languages
  - Flemish towns turn out to be a not clear concept internationally
  - Not all language Wikipedias have the category ski resort
- Physical geography vs. human and political geography
  - Different relationship with culture and language
  - Temporal restrictions only used in connection with human geography
  - Nationality is a difficult issue
- Only two cases with unspecified spatial granularity (places where...)
- We allowed visual clues to decide (snow, colours and map left/right)

Overview of topics (3)

- How was the universe of the collections?
- How were the topics related to hits (and justifications) in the collections?
- Was there a correlation between language/collection and topic bias?
- A lot of little-developed and inaccurate Wikipedia pages were found a posteriori, raising doubts on the initial assumption that searching Wikipedia crosslingually is a good idea
Size of collections (pages * 1k)

- Topic choice was not correlated with collection size

Collections dated June 2008, except for English SQL dump, from May and July 2008

Number of authoritative (correct and justified) answers per collection size

- Little correlation with collection size

Overview of results per language

Topic coverage in the pool, per language

- Still, some languages had a definite advantage over others: one could get 70% of the results in English alone against 20% only in Bulgarian

Authoritative languages: where is the justification

- For each language, was the justification found in the corresponding Wikipedia?

Inconsistencies and problems

- The language of the Vatican
  - Italian and/or Latin?
- Height of a Norwegian waterfall
  - EN: Rjukanfossen is a waterfall of 104 meter... NO: Fossen har en total fallhøyde på 238 meter og høyeste loddrette fall er 104 meter
- Who died of tuberculosis?
  - Charlotte Brontë did not
- If a party changes name… was it founded when?
Thanks to the GikiCLEF assessors
- Thanks to the 30 assessors: Sören Auer, Anabela Barreiro, Gosse Bouma, Luis Miguel Cabral, Nuno Cardoso, Leda Casanova, Luis Costa, Iustin Dornescu, Ana Engh, Corina Forasuc, Pamela Former, Fredric Gey, Danilo Giampiccolo, Sven Hartrumpf, Katrin Lamm, Ray Larson, Laska Laskova, Johannes Leveling, Thomas Mandl, Cristina Mota, Constantin Orasan, Petya Osenova, Anselmo Peñas, Erik Tjöm Kim Song, Diana Santos, Julia Schulz, Yvonne Skalban, Rosário Silva, Kiril Simov, Alvaro Rodrigo Yuste

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- Daniel Ferrés & Horácio Rodríguez (GIKITALP)
- Adrian Ifene et al. (UAICGIKI09)
17 runs submitted

Public resources
The GIRA package at http://www.linguateca.pt/GikiCLEF/
- Topic lists per language, in XML and text format
- Topic descriptions (in English, together with assessment decisions)
- Lists of correct answers
  - Correct (because we know): GikiCLEF_answers_correct.txt
  - Correct (justified in some language): GikiCLEF_answers_correct_justified.txt
- Results (global, per language) and general statistics
- SIGA system, open source
- GikiCLEF collections

Number of answers per topic

Final discussion: Was GikiCLEF worthwhile?
- Recurrent comment: too difficult!
- Often not clear which (Wikipedia) pages were sought
- Flag pages or country pages?
- Team pages or country pages?
- Most (organizers) were probably not expecting so much work
1. It is possible to create a system capable of answering many languages
2. It pays to process English: The amount provided by each language, even in culturally-aware topics, is negligible
3. The quality of other languages’ Wikipedias is in strong need of improvement

Concluding remarks
- We are offering GikiCLEF results to the GIR community
- We know that considerable empirical work remains to be done
  - Pool improvement
  - Study of the changes to Wikipedias after 2 years as far as the GikiCLEF topics are concerned
  - Generalization of the kinds of topics and problems tackled
- Measuring the ”geographicity” (the degree or connection it has to geographical concepts and reasoning) of an evaluation contest, or of a collection, is not trivial, but more should be done in GIR
  - There are a lot of obvious statistics that can be gathered, from density of place-denoting NEs to number of related geographical queries for elements of a collection, etc