What Can Language Technology do for IR?

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  - DOES/COULD DO/IS DOING

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- Research at Bitext
Bitext - Applied Language Technologies

- Before Bitext – Since late 80’s
  - IBM, WorPerfect, Novell
  - LTI - Carnegie Mellon University
- Information Retrieval
- Grammar checking
- Assisted Translation

- Early Bitext - EU funded projects - IST
  - LIQUID, ALLES, TT2

- Bitext – Developer of complementary products
  - NaturalFinder + Search Engines
What Language Technology DOES for IR

- Nothing

- Query side
  - “Special offers for…”
  - 53 70 65 63 69 61 6C 20 6F 66 66 65 72 73

- Index
  - 53 70 65 63 69 61 6C
  - 6F 66 66 65 72 73

- or almost nothing as we’ll see...
What Language Technology COULD DO for IR

- Everything - Search is a language problem!

- Query side
  - “Special offers for MP3 players”
  - offers, POS:noun, NUM:plural... SYN: bargain

- Index
  - special, adj...
  - offers, noun...
  - ...NOUN PHRASE

- but it is not happening! Or it is?
What Language Technology IS DOING for IR

- Actually, there is something
  - Spelling – Live, Google, Yahoo – Not Amazon!
    - Avoids silence
  - Stemming – Live, Google
    - Increases recall
  - Natural language interface – Hakia, Powerset
- And probably, there’s more coming
- (Debate: Symbolic vs. Statistical Techniques)
What Bitext is offering for Search Engines

- As much as linguistic technology can do
  - One integrated NLP suite: DataSuite
    - Spelling – DataSpell
    - Stemming – DataLexica
    - Semantics – DataNet
    - Morph-syntactic processing - DataGrammar
  - Packed solutions for specific applications:
    - NaturalFinder, for search engines
  - For Spanish, English, Basque, Catalan...
NaturalFinder, add-on for any search engine

- NaturalFinder, functionality
  - Natural Language Interface
    "Italian painters that lived in Spain"
    - Better user experience
    - No keywordese, no two-word queries, no booleans
  - Linguistic Knowledge – Transparent for the user
    - Better results
    - Better ranking (recall & precision)
NaturalFinder, add-on for any search engine

- NaturalFinder, technology
  - Integrates in a non-intrusive way
    - string-based interface –API
    - in any platform -Windows, Linux/UNIX
  - Already integrated with
    - Google Search Appliance
    - dtSearch
    - Memex
    - Microsoft SharePoint
    - Oracle Secure Enterprise Search...
NaturalFinder, add-on for any search engine

- NaturalFinder + Live
  - Architecture
    - Live: Docs, Index, Search Engine
    - NaturalFinder: User Interface
  - Limitations
    - Under development
    - Query length
    - Case and accent sensitivity
    - Operator nesting – NOT

- Thanks to Microsoft!
information on tourist attractions in the UK but not in London

Examples

Find what you are looking for in Live using NaturalFinder. You will retrieve all relevant documents for your query with just one click and in your own words

Try now

• Type your query in natural language:

  information about tropical paradises which are not in the Pacific

• Click on "Live": The application will launch the query using Live search engine.

• Now, try the same query using our linguistic technology by clicking on "NF+Live", and check the difference.

Other examples of queries with NaturalFinder

• information on sharks in the Red Sea
• outcome of the Spanish general election in 2000
• information on UFOs in southern Spain
• terrorist groups supported by Syrian intelligence agency
LIVE without NaturalFinder

British Museum London
British Museum, Britain guide, tourist information UK ... exhibitions, although not to ... The British Museum in London UK is one of the tourist attractions in the United ...

London Dungeon UK
London Dungeon. Britain guide, tourist information UK ... it is not recommended ... The London Dungeon in England UK is one of the tourist attractions in the United ...

London Hotels | London Holidays | London Tourist Information | London ...
... is soaked in such a rich imperial history that is not found anywhere else. On VisitLondon.Net, you will find Hotels in London, tourist information, restaurants, events, attractions ...

London Tourist Information one of the most popular destinations in the ...
... London Tourist Information ... tourist attractions ... not forgetting the spectacular London Eye, The West End, Theatreland, Art Galleries and Museums, The Tate, lots to see and do. London Tourist Information

UK-Tourist-Info.com: Tourist Attractions & Information for Places in ...
Tourist attractions and information for places in London England, Scotland and Wales. ... Contrary to popular belief, the UK does not include the islands of ...

TOURIST NET UK - Holiday Information - Hotels Guesthouses b&Bs ...
... the UK tourist with the information they need to plan ... promote tourism in the UK, they often do not provide the information you ... London Attractions | London Heritage | ...

London Accommodation Hotels - Tourist Net UK
LIVE with NaturalFinder

Historic Sites in Cornwall - Visit Cornwall
... collections of historic sites in the UK. But don't ... Tourist Attractions ... Visitor Information

Runcorn Cheshire information for tourists and visitors from TourUK
... the most industrialised parts of the UK. but ... Norton Priory is Runcorn's main tourist attraction. ... To See - Runcorn Tourist Attractions

Guernezy Hotels, Guernsey Bed & Breakfast. We have Pubs & Inns in ...
... accommodation in Guernsey and good UK offshore tourist attractions ... It is not a part of the UK but is a separate ... Guernsey Information: Travel help Architects Surveyors

Cornwall Holiday Resource | Cornwall
Cornwall information on resorts towns and villages, ... not only popular with holiday makers from the UK but ... and Poldark tin mines have been reopened as a tourist attraction.

The Dedicated Partnership - Poster Distribution Costings
... by the company extends throughout the UK but can be adapted to meet individual customers' needs. We cover tourist information centres, tourist attractions ...

Salisbury District Council | Ten-year action plan to help local ...
We boast top tourist attractions such as Salisbury Cathedral ... the most beautiful countryside found in the UK. But it ... For more information and to request a copy of the ...

Darwin Australia - Getting Around An Australian Outback City
What Bitext is offering for Search

- Other packed solutions for search oriented environments
  - Geographic Information Systems
    - NaturalGIS
  - Customer Relationship Mgmt
    - NaturalAssistant
  - Databases
    - NaturalSQL
  - No-index - Regular expressions
What Bitext is offering for Search

- Pre-production Research

- Named entity recognition with attributes
  “ACME Vice-President John Doe”

- Text categorization
  open-closed categories
  known-unknown categories
  single and multiple categories
  paragraph and document level
What Bitext is offering for Search

- Basic-Research
  - We are looking for a partner to develop new ways of indexing that include linguistic knowledge
  - After document metadata we need Word metadata
Thanks!

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