BIG MULTILINGUAL TERMINOLOGICAL DATA SPACE

Riga Summit – 29 April 2015
Partners of the project
Big Multilingual Terminological Data Space

Connecting and Converting Termbases in the Semantic Web
A common ontology..

• ..converts terminology databases
• (explanation by Roberto)
A metasearch engine

(explanation by Roberto)
Language barriers in EU

• It is a fact that the European Union is made up of 28 member states and EU citizens have the privilege to commute from one state to another without major issues except from the possible language barriers, as there are 24 official languages.
Online information access can sometimes be cumbersome. Multilingual information clearly limits the amount and type of information that certain users can access.
Monolingual Search Engines

Search engines in use today are mostly monolingual. They allow users to enter a search query in one language but the results are given only for that same and only language.
Open-door access to information

- It is self-explanatory in this “open-door” context of the EU that users need access to information in any of these 24 languages no matter in which language a query is done.
A Multilingual Search Example

Google search results for "serie a":

1. **Serie A Betting Odds, Soccer Italy**
   - [www.oddsportal.com/Soccer/Italy](http://www.oddsportal.com/Soccer/Italy)
   - About Serie A: Serie A is the top professional football league in Italy and all Italy Serie A betting odds can be followed across OddsPortal.com. Juventus, AC Milan...

2. **Calcio Serie A: ultime news La Gazzetta dello Sport**
   - [www.gazzetta.it/Calcio/Serie-A/](http://www.gazzetta.it/Calcio/Serie-A/)
   - Translate this page to La Gazzetta dello Sport

3. **Serie A | beIN SPORTS US**
   - [www.beinsports.tv/serie-a](http://www.beinsports.tv/serie-a)
   - beIN Sports is America’s new soccer home providing exclusive content for La Liga, Serie A, Ligue 1, CONMEBOL/CONCACAF World Cup Qualifiers.

4. **Italian Serie A Football Transfers 2014/2015 Season**
   - Soccer News
   - Get all the latest player transfer movements from Italian Serie A for 2104/15. All club transfers, prices and player info.
APPLICATION SCENARIOS

Application scenarios of the multilingual search Engine
Cross–language search

A cross–language search service could be an effective mean for accessing in the unstructured big data, information in an unconventional but logical way:

• Enter a query X in one official EU language and get results in one of the other 23 official EU languages.
Application scenarios

Come trovare il numero di serie di un prodotto hardware Apple

52000 English results for How to find the serial number of an Apple hardware product - Apple

Find the serial number of your Apple hardware product - Apple
5 days ago ... Learn how to find the serial number of an iPhone, iPad, iPod, Mac, or other Apple product.
https://support.apple.com/en-us/HT204308

HT1349: Find the serial number of your Apple hardware product
HT1349 Find the serial number of your Apple hardware product. Macbook on Craigslist but I do not have my serial number. Is there anyway to prove its mine?
https://discussions.apple.com/article/HT1349

MacBook Air: How to find the serial number - Apple Support
Mar 10, 2015 ... On the original product packaging. If you still have the original packaging for your MacBook Air, you can find the serial number on the barcode.
https://support.apple.com/en-us/HT201665

Check Your Service and Support Coverage: Apple - Support
Review your warranty status and eligibility for support and extended coverage. Enter your hardware serial number. ... Finding your serial number is easy.
https://selfsolve.apple.com/

How to find the serial number of your Apple hardware product
How to find the serial number of your Apple hardware product - If you need to locate the serial number for your Apple product Click Here.
www.welovemacs.com/fisunu.html

iCloud - Contact Support - Apple Support
*Support for iCloud is based on the Apple hardware product with which you are using iCloud. Please have your product serial number available. Learn how to...
www.apple.com/support/icloud/contact/

Where is the serial number on the apple earpods? | Apple Support
The labour market domain can be a sector of application of the cross-lingual thematic search engine.

In an ideal scenario, such a terminology tool can enable EU citizens to seek online for jobs (domain of interest: labour market > job mobility, job vacancy) in a language barrier-free environment.
cameriere lavoro

Search pages written in: Italian and Greek

176000 Italian results for cameriere lavoro

Lavoro - Cameriere, Offerte lavoro | Indeed com
Trovare lavoro: Cameriere su Indeed.com, una ricerca. Tuo lavoro. Cerca il tuo lavoro ideale tra più di 300.000 offerte di lavoro pubblicate da portali lavoro, ... it.indi.com/ufftce-lavoro-Cameriere

Cameriere - Lavoro - Kijiji Annunci di eBay
4751 offerte di lavoro e richieste di impiego: trova lavoro su Kijiji. Trovi anche cameriere.
www.kijiji.it/offerde-lavoro/cameriere/

Lavoro - Cameriere Di Sala, Offerte lavoro | indeed com
Trovare lavoro: Cameriere Di Sala su Indeed.com, una ricerca. Tuo lavoro. Cerca il tuo lavoro ideale tra più di 300.000 offerte di lavoro pubblicate da portali lavoro, ... it.indi.com/ufftce-lavoro-Cameriere-Di-Sala

Offerte di lavoro cameriere con vitto e alloggio - Italia | careerjet it
Trovare lavoro: Cameraejet tutte le offerte di lavoro per cameriere con vitto e alloggio in Italia pubblicate su tutti i siti di annunci di lavoro.
www.careerjet.it/lavoro-cameriere-con-vitto-e-alloggio.html

Lavoro - Cameriere - Roma, Lazio, Offerte lavoro | Indeed com
Trovare lavoro: Cameriere, Roma, Lazio su Indeed.com, una ricerca. Tuo lavoro. Cerca il tuo lavoro ideale tra più di 300.000 offerte di lavoro pubblicate da portali lavoro, ... it.indi.com/Roma,-Lazio-offerte-lavoro-Cameriere

Cameriere - Offerte di lavoro a Milano - Kijiji Annunci di eBay
1 giorno fa ... Sai che a Milano cercano 320 esperti lavoratori? Su Kijiji trovi tanti posti di lavoro, anche subito, con ogni forma contrattuale. Trova anche.
www.kijiji.it/offerte-di-lavoro/ufftce-annunci-milano/cameriere/

Lavoro - Camerieri, Offerte lavoro | Indeed com
Trovare lavoro: Camerieri su Indeed.com, una ricerca. Tuo lavoro. Cerca il tuo lavoro ideale tra più di 300.000 offerte di lavoro pubblicate da portali lavoro, giornali ... it.indi.com/ufftce-lavoro-Camerieri

Offerte di lavoro cameriere Annunci di reclutamento in
Project description

• The Big Data of linguistic corpora (queries) in different EU languages will be tagged using semantic approach: combining words according to their meaning into families belonging to a domain and subdomain.

• The identification is made by using Natural Language (NL) understanding techniques capturing the meaning of phrases.
The selected data would be tagged – by combining portions of unstructured data – with terms (in EN) according to their meaning into families belonging to the labour market domain and subdomains respectively.

Those terms would then be semantically associated with equivalent terms in other EU languages through their common concept.

The reference terms used for tagging data could be retrieved from different EU databases that are already available – making the most of the particular characteristic of reuse that lies under the concept of ontologies – such as IATE, EUDAT, EuroVoc ontology, etc.
Scope of the project

• With such a thematic search engine it would be easier for EU citizens to find job opportunities across Europe.
• One of the biggest problems in this sector is actually the difficult matching of labour demand and supply due to language barriers.
• It is a fact that some citizens from a certain member state are not aware of possible job opportunities in another member state.
Conclusion

• A multilingual thematic search engine could not only open up new worlds to qualified workers seeking for a challenge in another member state, but also open up new possibilities for employers who look for qualified workers across Europe but do not necessarily find them.
Conclusion

• In order to further promote and contribute to a barrier-free EU setting, the metasearch engine could enable EU citizens to seek online for all sorts of information that will help them to enrich their academic qualifications, improve their employability or for EU companies to extent their visibility.
Role of terminology in this project

• The role of terminology in this project: disambiguation of search results and query consistency.

• An **autosuggest** feature could help to improve the **input** by the user and refine the search results.

• Terms used for tagging the unstructured data could be also reused for improving consistency in CVs as well as for improving the use of **keywords** to boost **CV indexing**.

• The same would account for **job descriptions** by recruiting companies.
Terminology is key

- The key element in this project is terminology, as data cannot be properly explored without terminology resources and therefore multilingual terminological resources are the only way to disambiguate big data sets