Extending the Use of Web-Based Terminology Services

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LATVIA
• Translation and Localization services
  – Latvian, Lithuanian, Estonian
• Terminology development and management
  – EuroTermBank: >2 mil terms, >25 languages
• Language Technologies and Resources
  – Small languages
• 3 offices
  – Riga (Latvia, headquarters)
  – Vilnius (Lithuania)
  – Tallinn (Estonia)
• >100 employees
  – 4 PhDs and 3 PhD candidates
European cooperation
Terminology

• Terminology is everywhere
  – visiting a doctor
  – building a house
  – buying a car, etc.

• We come across with terms every day
Terminology

- Terminology matters
  - efficient and precise communication
    - academia
    - industry
    - government

Society
Terminology

• Terminology is a language
  • Language for Specific (professional) Purposes (LSP)
    – multilingual consolidated and harmonized terminology is already being utilized as data by human users
  • language workers
    – translators, terminologists, technical writers, editors, etc.
    – now it is being developed as a web-based service for machines as users
  • systems
    – machine translation, indexing, search, annotation, etc.
Challenges

• creation, consistency, extraction
  • according to recent surveys, 84% professionals select terms from documents manually
    – acquisition
      = term identification in a text
    – recognition
      = term comparison with existing resources
• consolidation & harmonization
• sharing & interoperability

• MT domain adaptation
• concept formalization
• data annotation, indexing and search, etc.
Terminology is on the cusp between semantic and language technologies

Terminology is bridging the three communities

Linked Open Data
Multilingual Web
Multilingual Language Technologies, i.e. NLP
Tilde’s best practices & use cases
EuroTermBank

www.eurotermbank.eu

Search and Explore Terminology with the New EuroTermBank

Welcome to the new EuroTermBank – the largest free online terminology resource.

EuroTermBank portal has new features:

- Search and explore terms in several target languages at once
- The new search and term display returns easier to use information
- Set search preferences and filter settings
- Filter and explore terms by domain and language
- Translation view and Entries view
- Multiple levels of data detail

Try and see for yourself! Enjoy!
EuroTermBank

- [www.eurotermbank.eu](http://www.eurotermbank.eu)
  - MS Word
  - memoQ
  - Microsoft multilingual terminology
  - IATE
  - Open Terminology Platform
  - sharing & exchange terminology in META-SHARE
  - will be used in terminology services both for human & machines as users
ACCURAT & TTC

Analysis and Evaluation of Comparable Corpora for Under-Resourced Areas of Machine Translation

Terminology Extraction
Translation Tools
Comparable Corpora

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• Comparable corpora
• Reference term lists and annotated texts
• Rule sets for term variant recognition and mapping
• Toolkit for multi-level alignment and information extraction from comparable
• Neo-classical multi-word term detection program
• TTC TermSuite
Terminology as a service
a cloud-based platform
for acquiring, cleaning up, sharing, and reusing
multilingual terminological data
TaaS basic services

TaaS Infrastructure

Extracting Translation Candidates from web data
- Acquiring parallel web data
- Data filtering
- Translation candidate extraction
- Retrieval of translation candidates

ACQUIRE & PROCESS

TaaS Terminology Services
- Manage users
- Import documents
- Content filtering
- Term candidate extraction
- Retrieval of translation candidates
- Store terminological data
- Facilities for cleanup, export & sharing terminological data
- Creation and delivery of system-generated glossaries

PROCESS, STORE & SHARE

TaaS ETB, other TDBs

Other potential users

Machine Translation

Computer-Assisted Translation

Language worker

Users

Usage Scenarios

REUSE
Build your own machine translation system!

With LetsMT you can easily build and run your own custom machine translation systems. Simply upload your own corpora and/or choose to use any of the publicly available corpora. Train your systems and use them for all your translation needs.

**EASY**

- Frees you from hardware and software infrastructure
- Store corpora and engines in one place
- Access to many free public texts and translation engines
- Instantly increase productivity with CAT plug-in for localization process and web browser widget

**IS LETS MT FOR YOU?**

- Localization & translation service providers
- Holders of linguistic resources
- Companies with a need to translate large amounts of information
- Those who don’t want to trust their resources to public systems

**THE BASICS**

Click to see how it works

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**Translate**

Translate now using available systems

**Build**

Build your own machine translation system

**Store and Share**

Upload, organize, store, and share your corpora
SMT adaptation use case

SMT system adaptation to narrow domain
  – automotive manufacturing

We had:
  – limited amount of in-domain parallel texts from a client
  – no in-domain texts in the target language
  – extracted terms from parallel texts
  – additional comparable texts collected from the web
  – bilingual in-domain terms tagged and mapped automatically in the collected texts

We got:
  – 32% increase in BLEU against a broad domain system
Terminology is on the cusp between semantic and language technologies

Terminology bridges the three communities LOD, MW & NLP

Terminology has the potential to vastly enhance the degree of automation for LOD

Terminology facilitates the creation of multilingual ontologies, taxonomies, etc.

Terminology helps to automate the creation of multilingual & cross-lingual metadata
The research within the projects LetsMT!, ACCURAT, META-NORD, TTC, TaaS leading to these results has received funding from the European Commission ICT Policy Support Programme and FP7 Programme