LetsMT! – Towards cloud-based service for MT generation

Andrejs Vasiljevs
andrejs@tilde.com

Tilde

Translingual Europe 2010, Berlin, 07.06.2010
Data challenge

- **Statistical methods** provide breakthrough in cost-effective MT development
- Quality of SMT systems largely **depends on the size** of training data
- To overcome gap in SMT language and domain coverage and to improve quality much larger volume of training **data is needed**
- Parallel data accessible on the web is **just a fraction** of all translated texts. Most of them still reside in the local systems of different corporations, public and private institutions, desktops of individual users.
Customization challenge

- Current mass-market and online MT systems are of general nature and perform poorly for domain and user specific texts.
- System adaptation is prohibitively expensive service not affordable to smaller companies or the majority of public institutions.
- Particularly localization industry is not able to fully exploit the data they have.
Platform challenge

- Great open source platforms like Moses and GIZA++ make it relatively easy to build MT engine.
- Still expertise and local infrastructure is needed that is not available for majority of users.
Let'sMT! Vision

Let’s advance MT together!

- To fully exploit the huge potential of existing open SMT technologies to create an innovative online collaborative platform for data sharing and MT building.
- This will be a platform that gathers public and user-provided MT training data and generates multiple MT systems by combining and prioritizing this data.
- Let'sMT! will extend the use of existing state-of-the-art SMT methods that will be applied to data supplied by users to increase quality, scope and language coverage of machine translation.
LetsMT! Vision

- Sustainable user-driven MT factory on the cloud providing services for user data sharing, MT generation, customization and running.
LetsMT! Project ID

- Funded under: EU Information and Communication Technologies Policy Support Programme
- Area: CIP-ICT-PSP.2009.5.1 Multilingual Web: Machine translation for the multilingual web
- Project reference: 250456
- Execution: From 01/03/2010 to 31/08/2012
- Project coordinator: Tilde
Partnership with Complementing Competencies

- Tilde (Project Coordinator) - Latvia
- University of Edinburgh - UK
- University of Zagreb - Croatia
- Kopehagen University - Denmark
- Uppsala University - Sweden
- Moravia – Czech Republic
- SemLab – Netherlands

Support Group
(TAUS DA, SDI Media, Patent Office LV, etc.)
LetsMT! Main Features

- Users will contribute with **user-provided content** by uploading their parallel texts.
- **Directory** of web and offline resources gathered by LetsMT! as well as user provided links to other sources that are not yet included in LetsMT! repository.
- **Automated training** of SMT systems from specified collections of training data.
- Larger donors or customers will be able to specify particular training data collections and build **customised MT engines** from these collections.
- Customers will be able to use LetsMT! platform for tailoring MT system to their needs from their **non-public data**.
- Users will be involved in **MT evaluation**.
Software Architecture
Key Outcomes

- **website for upload** of parallel corpora and building of specific MT solutions
- **website for translation** where source text can be typed and translated
- **translation widget** provided for free inclusion into websites to translate their content
- **browser plug-ins or add-ons** that would allow the quickest access to translation
- **web service for integration in CAT tools** and other applications
Let's MT! main target groups

- Translation industry
- Freelance translators
- Software developers and providers
- Web developers
- Public institutions
- Research community
- University education
- General users
Application Scenarios

- Online MT service for the localization and translation industry
- Online MT service for global business and financial news
- Showcase for patent translations for gisting purposes
Key Impact Areas

- Significant increase in available **language resources** for training of SMT systems
- **Improved quality** of SMT, especially for smaller languages
- Increase in **language coverage** for machine translation
- **Diversification** of free MT by tailoring for specific domains or user requirements
- Significant **increase in usage** of MT in web and applications through LetsMT! translation widgets, plug-ins and MT web-service
- Much wider use and greater impact of available **open-source SMT technologies**
- **Collaborative involvement** of different stakeholders from public sector, SMEs, universities, research and education community
Thank you and Let’s MT!

letsmt.eu