Language Technologies in Europe: trends and future perspectives

European Commission

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META

- **Creation of language resources**

- **Strategic Research Agenda**

- **White books on future of European languages in digital age**

Excellent input and fundament for future LT developments

WHY??

Outline

- **Language (technologies) in the European policy context**

- **Language technologies in the European Data Value Chain strategy**

- **European fundings and future perspectives**

Conclusions

Why does the EU support language technologies?

- The **European Union** brings together **500 million people** speaking **many languages**...

- less than half of Europeans understand English

- the Web and the online market is more multilingual than ever

- Towards a ***digital single market*** where content & services can flow freely

✓ support cross-border exchanges between public online services

✓ eCommerce

✓ ease internationalisation of SMEs...

Language technologies in ICT policy context

➢ **A strategy for smart, sustainable and inclusive growth**

➢ A vision to achieve **high levels of employment, a** low carbon economy**, productivity** and **social cohesion,** to be implemented through concrete **actions at EU and national levels.**

➢ One of the seven flagship initiatives of Europe 2020, set out to **define the key enabling role that the use of ICTs will have to play** if Europe wants to succeed in its ambitions for 2020.

➢ The overall aim […]   is to deliver **sustainable economic and social benefits from a digital single market […]**

➢ **Support research and innovation**

"The Commission is invited to **make rapid progress in key areas of the digital economy to ensure the creation of the Digital Single Market by 2015, including […] the availability of public sector Information."**

Conclusions of the European Council (4 February 2011)

The "European language technology" portfolio has been strengthen in the broader "Data value chain" context

- A new opportunity to **explore technology and policy synergies between** the "Data" challenge, Semantic Web, and language technologies

- DVC has a portfolio of **130+** projects with **300+** MEUR funding, **1500+** FTE

- Special SME focused actions

- We should make more effort to enhance **multidisciplinary working together** and profit from each other's achievements

"DATA Value Chain" Vision

aims at **extracting the maximum value** from data by building on the <u>intelligent use</u> of multilingual **data sources** across Europe.

This will lead to
- **increased business intelligence** and **efficiency** of <u>private and public sectors</u>
- **world class applications and services**
- **new business opportunities** involving SMEs
 - new ways of tackling **societal challenges**

Main pillars of the "Data value chain" thinking

1. Creation of "data value" friendly **policy environment**

2. Development of **European Digital Service Infrastructure** (CEF) and **fostering new services** in relation to

   - Building and reuse of language resources
   - Open Data portals at local, regional, national and European level

   - "Multilingual access to online services"

3.   European Research and innovation support enhancing multilingual intelligence (including new generation of Language Technologies)

European Research and innovation support of Language Technologies

- First programmes in 1980's (mainly authoring tools)

- A fresh start since 2008 (150 M€ funding for 60 projects)
  - explosion of online content, esp. social networks
  - sizeable industry of language services
  - promising technical advances

- Outlook: Horizon 2020

Main themes of our current LT projects

- machine translation (text, speech)

- speech recognition, dialogue systems

- Semantic technologies, information extraction, question answering, data mining in multilingual context

- annotation of content (text, multimedia, objects)

- summarization, digestion, visualisation – of information

Outlook: Horizon 2020

- LT will be supported by ICT part of "LEIT"*

- Challenges identified by consultations: e.g.

  - Business intelligence and real time decision support including predictions and visualisation

  - Innovative methods and services in data intensive sectors

  - Cross-border data markets

  - Skills

  - "Language device" + interactions

Conclusions

- **Multilingualism** *is a strength and an opportunity for Europe*

- **German is the most spoken mother lounge in Europe, but the resourcing is fare behind English**

- *More attention to and effort for* **less spoken** *and* **less resourced languages** *to avoid* **digital division**

- **Policy environment** *to support and force* **new multilingual/ cross-lingual services and business opportunities (SME)**

- **Coordinated research and innovation efforts** *are needed at* **European and national level + enhancing private R&D**

- **Incentives for companies to invest and work also on "small" language markets**

Conclusions f.

- Language technologies have **key enabling role in the digital development**: communication, culture, business,

- **Towards the Digital Single Market** in Europe **we need innovative LT solutions** for reducing the barriers

- **European digital service infrastructure** would help unleashing the potential of language resources (strategic importance of CEF)

- **'Big data' has the future**: LT is part of it

- There are **new opportunities arising** from the new EC focus and structure, use it!

Further info

- **Experts data base:**

  https://cordis.europa.eu/emmfp7/

- **Unit** – Data Value Chain

URL: http://cordis.europa.eu/info-management/

http://cordis.europa.eu/fp7/ict/language-technologies/

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Thank you!

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