

EASTIN-CL: Crosslingual and multimodal search in a portal for support of Assisted Living

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www.eastin-cl.eu

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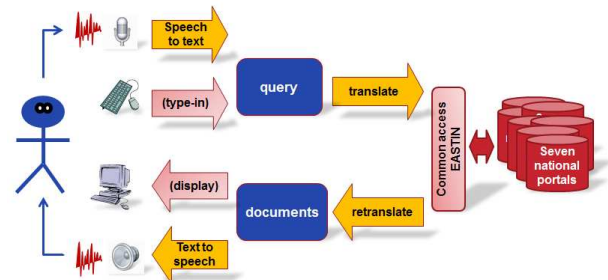
Project duration: March 2010 — May 2012

Summary

Participation and full citizenship, also called **e-Inclusion**, is one of the prominent goals of the European community. This includes the full participation of ageing people, or people with disabilities, to social life. EASTIN-CL tries to support this goal by enriching an existing European portal for search of assistive technology, called EASTIN (www.eastin.eu), with natural language access in multilingual and multimodal form. The language technology components to be developed in EASTIN-CL will provide:

- **Multilingual search**, by allowing users to enter queries in their native language. The query processing will map the query terms into a domain of the ISO-9999 ontology, which classifies the assistive technology tools and products. The resulting product group will be searched by the EASTIN backend, which is a combination of seven national portals containing product descriptions (in national languages, and in English as a pivot language). The returning product descriptions are re-translated into the users' native language by machine translation tools. As a result, the search will be **language-transparent** for the end-users.

- **Multimodal access**, by allowing users to use **spoken** input and output. Speech input will allow users to navigate and search with spoken language; speech output will read-aloud the retrieved product descriptions. Languages to be supported are: Danish, English, Estonian, German, Italian, Latvian, Lithuanian.



A central resource created in the project is the **Terminology of the Assistive Domain**. This is a multilingual collection of terminology, containing about 12.000 entries, modeling the assistive ontology as modeled in the ISO-9999 classification. Each term consists of a denotation, a link to the ISO classification, and translations into all EASTIN-CL languages. It is used to create the resources for machine translation, query processing, and the speech components. It is available for online lookup on the projects' web site.

Implementation will be based on web service technology whereby the language components are accessed by the EASTIN portal as web services. According to the planning, implementation will be completed in Q3-2011, and extensive user tests will follow, to ensure that the EASTIN-CL technology is really useful in such a setup.