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KHRESMOI
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Annual Public Report 2010

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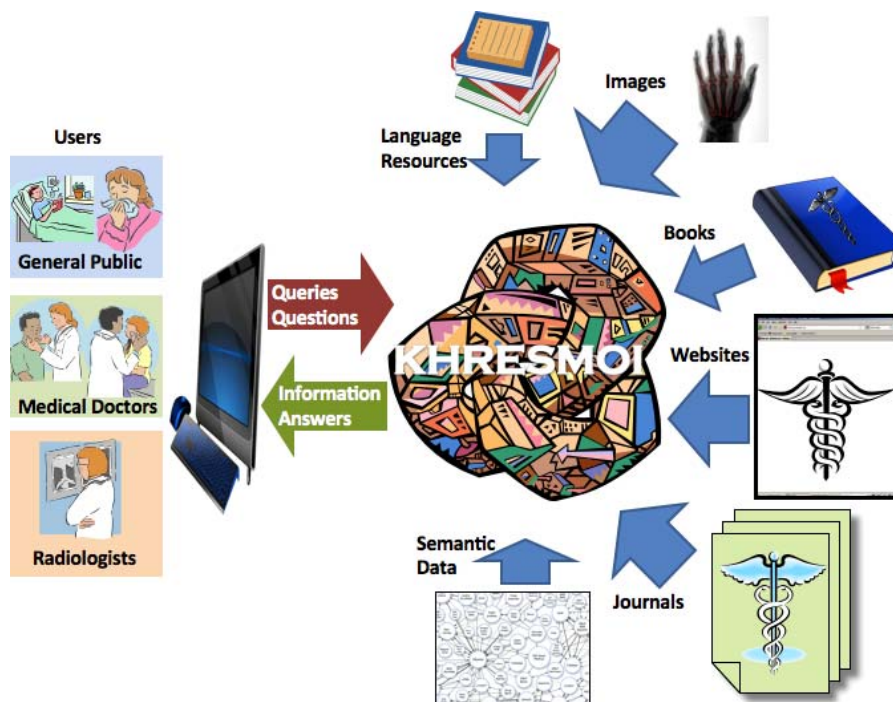
This project is supported by the European Commission under the Information and Communication Technologies (ICT) Theme of the 7th Framework Programme for Research and Technological Development.

KHRESMOI Annual Report 2010

Short project description:

The project "Knowledge Helper for Medical and Other Information users" (KHRESMOI) started on 1 September 2010. It addresses both challenges of trustworthiness and complexity levels in online health information. The project is funded under the EU 7th Framework Programme ICT theme. The project consortium, consisting of 12 partners from 9 European countries, will develop a web-based multi-lingual multi-modal search and access system for biomedical information and documents over the next four years. The system will allow querying in several languages, in combination with visual image queries. It will return translated document summaries linked to the original documents.

As the project only started in September 2010, this report only analyses the status after two months of the project.



Outlook of Activities

Starting position for 2010: After a successful Kick-Off Meeting (Oct. 12 – 13, 2010) the project teams have set course to work on the first deliverables, the emphasis will be put on technical integration and the collection and handling of data sources. The partners are planning the first demos of existing tools for February 2011, which will then be followed by an extensive use case survey.

1) Technical Integration

KHRESMOI will analyze medical information from various sources with different technologies and simplify and improve online access to it. Sources of medical knowledge include not only open information on the web, but also scientific publications and journals in the medical field, image and pharmaceutical databases and so forth. KHRESMOI will combine text and image retrieval, semantic analysis, but also multi-lingual information retrieval and machine translation technologies, coupled with question answering systems and innovative user interfaces. The integration of all these technologies (components, data sources, services) in a single architecture will be one of the major challenges of the project. The planning of the integration objectives has started immediately after the Kick-Off Meeting and will be further refined in a technical meeting in December 2010. A questionnaire has been sent to all partners to specify their available components and APIs. As the emphasis of the project is to create service applications the architecture design is vital to further success.

2) Data Sources

The identification and crawling of relevant data started in September 2010. So far the team lead by the IRF has collected Wikipedia (en, de, fr, es, cz), BioMedCentral open access journal abstracts, fulltext of WIKISURGERY with metadata and images, as well as the content of some medical journals. The next phase will contain the collection of COCHRANE databases and the full Health on the Net data corpus. Project partner ELDA is currently evaluating the licensing situation with MedPedia, Wikisurgery, NCBI BookShelf, ClinicalTrial.gov and BioMedCentral. At the same time databases with radiology images are being prepared for the integration into the KHRESMOI project by the Medical University of Vienna. Other important data sources include the language resources and different ontologies. The language resources are currently being set up by ELDA.

3) Use Cases and User Involvement

The involvement of users and the design of realistic use cases are of high priority in the project. The consortium includes partners providing realistic use cases with large groups of end users: a medical search engine with 11.000 queries per day (Health on the Net Foundation), an association of 2.700 medical doctors (Society of Physicians in Vienna), and two radiology departments (Medical University of Vienna as full partner and Geneva University Hospitals as associated partner). Two fields of inquiry are identified:

- Medical Information for European Citizens and Medical Professionals: this area includes patients, caretakers and medical doctors;
- Medical Information for Radiologists.

Currently the use case team (IRF, GAW, HON, MUW, HES) is preparing questionnaires for a first survey phase. In addition selected respondents will be interviewed for a more detailed understanding of user behaviour and user needs. The questionnaire will be available in print and online in German (on the website of the GAW) and French (on the website of HON). HON will also make the log files and user statistics available to evaluation.

Promotion and Awareness

Dissemination activities were launched at project start to create awareness in the public, but also in the scientific and business related domains. A press release in English and German was distributed via European and national channels, coverage ranged from local newspapers, online magazines in the eHealth context to a short report on the radio. The

Kick-Off Meeting consisted of a public part, with presentations of the project coordinators Henning Müller and Allan Hanbury; the project officer Werner Janusch; Philipp Peloschek, a radiologist; Celia Boyer of the Health on the Net foundation; and Najeeb Al-Shorbaji, member of the project advisory board and a representative of the WHO, which KHRESMOI will partner with in regard to the health publication databases and the multilingual challenges of global information access. Several Austrian journalists attended the public part of the kick-off meeting, resulting in the publication of a 2-page article about KHRESMOI in the Science supplement of one of the largest Austrian newspapers. The KHRESMOI website is continuously updated about the project's progress, and related events, and new functionalities are currently integrated, like a keep me updated button and an interactive contact form. A press conference in Switzerland by the HES-SO also resulted in three contributions on radio stations, a report on a regional television and several newspaper articles.

KHRESMOI has been presented at the following conferences and workshops so far:

- 10-11 November 2010: OpenHealth Spain
- 31 October 2010: Translational Medicine Workshop, IBM Haifa Research Lab

Future Work

The first year of KHRESMOI is devoted largely to mapping the user requirements and behaviour, evaluating the potential technical solutions for the domain-specific categorization of medical data and the development of a scalable software architecture that will host the heterogeneous technical approaches, formats and standards. One deliverable will include the analysis of standards and potential contribution to standards. These engagements will result in several reports and recommendations. A first extensive market opportunities survey (conducted by ATOS) will build the basis for further specifications, dissemination and exploitation strategies. As soon as the first prototypes are ready, KHRESMOI project teams will channel their expertise into the preparation of a training programme for radiologists and medical doctors, to be presented at major conferences in the respective fields. With the GAW being a certified higher education institution, there will be courses offered in line with the European Credit Transfer System.

The major milestone for 2011 is the completion of the user requirements analysis in the use cases, leading to the first specification of the system requirements.

Attachments: Further Information

- Website: www.khresmoi.eu
- Invitation to the Kick-Off Meeting
- Press release in English, German and Austrian version
- Press Coverage of Kick-Off Meeting: attachment of clippings
- KHRESMOI Factsheet
- KHRESMOI Diagram