

KHRESMOI: Towards multilingual Health Information for Doctors and Patients

Health information is accessed on the Internet by people with a wide range of backgrounds, ranging from members of the general public to medical professionals (physicians, clinicians, etc.). Members of the general public face challenges ranging from finding information that is trustworthy, in a language that is convenient to read, and at a suitable level of readability, to facing problems to do with basic Internet skills. For physicians and clinicians, the challenge is finding information that is accurate and up-to-date as rapidly as possible, also often with a preference that the information is in the searchers' native language. Radiologists have the special requirement to be able to search through radiological images based on the similarity of certain parts of the images.

KHRESMOI is a large EU-funded four year project (<http://khresmoi.eu>) with 12 partners that aims to satisfy the above requirements by building a multilingual search and access system for health information and documents. This will be achieved by: effective automated information extraction from biomedical documents, including automated estimation of the level of trust and target user expertise; linking information extracted from unstructured or semi-structured biomedical texts to structured information in knowledge bases; support for cross-language search, including multilingual queries, and returning machine-translated pertinent excerpts; adaptive user interfaces to assist in formulating queries and display search results via ergonomic and interactive visualizations; and automated analysis and indexing for medical images in 2D (X-Rays), 3D (MRI, CT), and 4D (MRI with a time component). KHRESMOI also aims to develop mobile access to medical information. This is frequently requested by clinicians who often work away from their offices and who might have to deal with cases happening in varied situations. Such mobile access is also of interest to clinicians who work in rural areas or in areas with poor infrastructure.

KHRESMOI is currently in its first year, in the phase of gathering user requirements from the general public, medical professionals and radiologists. It is also creating first prototypes that should demonstrate the potential of the technologies brought in by the project partners to meet the challenges listed above. Finally, there is interest in identifying where the technologies developed in KHRESMOI can be applied to challenges outside of Europe.