The EMITEL Multilingual Dictionary: a New Resource for the Global MRI Community

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Background and Purpose

The European Medical Imaging Technology e-Encyclopaedia for Lifelong Learning (EMITEL) project was established to develop e-learning tools for the worldwide medical physics community. The work builds on the existing EMERALD (http://emerald2.eu/emerald/) and EMIT (http://emerald2.eu/emit/) training materials to form a one-stop knowledge bank for lifelong learning in medical physics.

The EMITEL consortium, coordinated by King's College London, consists of almost 30 medical physicists and engineers based at universities and hospitals in the UK, Sweden and Italy, together with representatives of the International Organisation for Medical Physics (IOMP) and software developers based in Bulgaria. The extended EMITEL network contributing to the project consists of over 200 physicists and engineers from 35 countries. Work has initially concentrated on developing materials for use in MRI, diagnostic radiology, nuclear medicine, ultrasound imaging, radiotherapy and radiation protection.

Methods

The consortium drew up a list of around 3,400 terms, including 440 terms in the field of MRI physics. An international team of experts was recruited to translate each of these terms into a series of languages.

A dedicated website was developed for the dictionary and associated encyclopaedia. The aim was to make the software as simple to use as possible, without compromising content or utility, allowing easy update of material and hence maximising the longevity of the product.

Results

The project has developed a multilingual dictionary of medical physics terms which provides a valuable resource for the world-wide MRI community, as well as the wider medical physics community. The dictionary is linked to an encyclopaedia with articles (in English) about each of the included terms. By the close of the present phase of the project in March 2009, translation into 25 languages, using several different character sets, had been completed. These are English, French, German, Italian, Swedish, Spanish, Portuguese, Bulgarian, Czech, Greek, Hungarian, Lithuanian, Polish, Estonian, Romanian, Turkish, Latvian, Russian, Thai, Arabic, Persian, Bengali, Slovenian, Malay and Chinese. In the immediate future, enlargement to include Japanese, Korean and Finnish is planned.

The dictionary can be accessed free of charge at www.emitel2.eu. It is possible to translate terms between any two languages using a simple user interface, in which the languages are selected from pull-down menus and the word of interest is entered as text. The search engine displays all terms in the dictionary containing the entered word in both selected languages (Fig.1).

It is also possible to use the dictionary and encyclopaedia in a combined mode, so that a search returns the associated encyclopaedia article as well as the translation (Fig. 2).

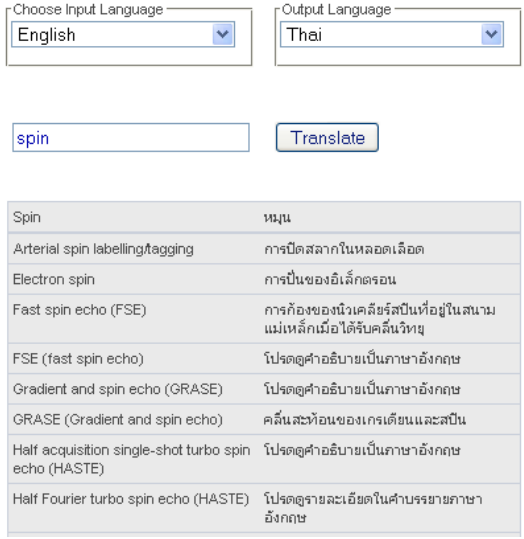

Fig. 1: Example of multilingual dictionary search results

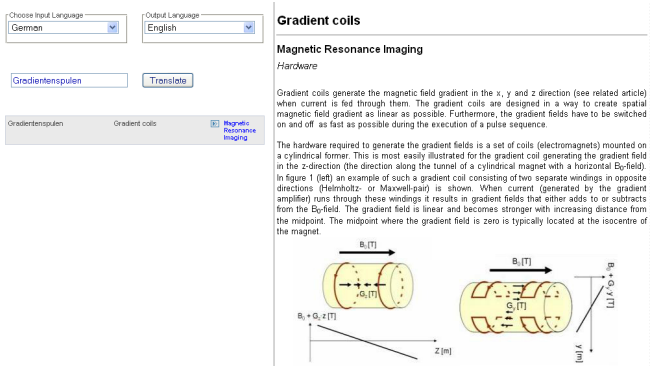

Fig. 2: Use of the dictionary to access an encyclopaedia article

Conclusions

We anticipate that the dictionary will be a valuable tool for medical physicists and engineers at all professional levels, and will also be of use to members of related professions, such as radiologists, radiographers and other scientists. For users whose first language is not English, the multilingual dictionary will provide a useful point of entry for the encyclopaedia. The EMITEL network has taken responsibility for ongoing maintenance and expansion of the dictionary.

Acknowledgements

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