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# Journal of EAHIL

## Theme Issue
## Medical Terminologies: Access to Knowledge

11th European Conference of Medical and Health Libraries
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**Early Bird Registration: deadline 31 March 2008**

**Nominate candidates for the election of the EAHIL President and Members of the EAHIL Executive Board!**

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# Journal of the European Association for Health Information and Libraries

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# Editorial

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Hello Everyone,

A Happy New Year to you all. I spent New Year's Eve at the opera in Cluj watching a wonderful performance of *Die Fledermaus*, which finished at 10pm and then our group went on to a party which finished in the early hours of the morning. I recalled the last time I had been at the opera in September 2006, at the time of the Cluj conference, but at that time I was only able to sit in the lobby and receive and make phone calls about the participants' lost luggage! There were no such distractions this evening and I thoroughly enjoyed the lightness and comedy of this excellent Strauss opera.

This issue marks the first "new look" *JEAHIL* and I do hope you like it. The Assistant Editor, Federica Napolitani together with the *JEAHIL* Editorial Board, have been working hard to introduce new ideas and proposals in order to raise the profile of our journal. We have a new cover and layout; we are moving the Association news to the end of the journal now and giving priority to articles. Our aim is to further improve the quality and content of *JEAHIL* as we move towards implementing full peer-review and establishing a professional library journal. We have also compiled *Instructions to Authors* and a *Checklist for JEAHIL Authors* at http://www.eahil.net/jeahil_instructions_authors.html . These can be downloaded easily for anyone who would like to submit an article to me at swood@umfcluj.ro for subsequent theme issues. This year the themes are:

| ISSUE | THEME | DEADLINE |
|---|---|---|
| May | Medical libraries: scenarios for the future | **15th April 2008** |
| November | Open access: today and tomorrow | **15th October 2008** |

At the end of this issue you will also find news about the forthcoming elections for the EAHIL Executive Board. Nominations for the President and 5 Board members should be sent to the EAHIL Secretariat, no later than March 31 2008. If you have any queries about nomination candidates please get in touch with your Nomination Representative: from the North (Eva Alopaeus, Chair of the Nomination Committee); the West (Ronald Van Dieën), the East (Sally Wood-Lamont), and from the South (Margarida Meira). In the May issue we shall have a summary of each candidate and all EAHIL members will be asked to place their votes.

The theme for the January issue is *Medical terminologies: access to knowledge* and we have received some excellent articles from Finland, Italy, Germany, Poland and Romania. My thanks to everyone who submitted articles and I hope you will find them all very interesting.

# NLM Italian MeSH translation: evolution in progress

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**Abstract**
*The Italian Medical Subject Headings (MeSH) translation, originating from the collaboration between the National Library of Medicine (NLM) and the Istituto Superiore di Sanità (ISS), was conceived in order to join NLM's Unified Medical Language.*
*The project of standardising scientific language is also useful for Italian librarians in the field of semantic indexing and cataloguing of scientific documents and not only a way of deepening the knowledge of medical terms or helping Italian speaking users.*
*Introducing English synonyms of MeSH has raised the problem of monitoring the progression of translation. Statistics analysis, together with translation memory tools, will help monitoring and scheduling future revisions.*

*Key words:* medical subject headings; Italy; translations; documentation; libraries.

## Introduction

The Istituto Superiore di Sanità (ISS) – the Italian National Institute of Health – is the leading technical scientific body of the Italian National Health Service. The ISS has been collaborating with the National Library of Medicine (NLM) of Bethesda (USA) since 1978. The Documentation Service is the NLM MEDLARS (MEDical Literature Analysis Retrieval System) Centre for Italy.

MeSH is the National Library of Medicine's thesaurus. It consists of sets of terms organized in a hierarchical structure allowing research at various levels of specificity. MeSH language is a search basic instrument for users of biomedical and scientific subjects, and is considered a standard for special libraries such as the ISS (www.iss.it/site/SebinaOpac/).

The National Library of Medicine MEDLINE/PubMed database includes over 17 million literature citations and abstracts of biomedical articles and other life science journal literature written in 41 languages. International MEDLARS Centers have promoted translations of MeSH to make this vocabulary useful for non-English speaking

users. Multiple translations of MeSH terminology facilitate users with difficulties in understanding English language to identify articles that are of real interest.

**Why the Italian MeSH translation?**

The Italian MeSH translation, originating from a collaboration between the NLM and the ISS Documentation Service, started in our Institute in 1998 and has been available since November 2004 on the ISS website (www.iss.it/site/mesh/index.aspx), thanks to its Data Management Service (1). A collaboration with the ISS Library cataloguing section followed in 2006 (2).

The ISS Library is specialized in scientific documentation in the field of biomedicine. It supports many important activities of the Institute, and mainly deals with Italian laboratory researchers and university students. The ISS Library is mainly visited by researchers in biomedical subjects who consider translated terms very helpful. All biomedical subjects, stored in our automated catalogue, are taken from the Italian MeSH translation. Almost 80% of the ISS Library subject headings derive from MeSH sources. The remaining 20% consists of specific terms belonging to different disciplines not included in the MeSH thesaurus (3).

The Italian MeSH translation was conceived in order to join NLM's Unified Medical Language System (UMLS). The project aimed to facilitate the development of computer systems able to understand the meaning of the language of biomedicine and health promotion (4).

The standardisation of scientific language is also useful for Italian librarians in the field of semantic indexing and cataloguing as regards scientific documents and not a mere way of investigating the knowledge of medical terms. ISS semantic cataloguers, with a few exceptions, apply the same basic principles as those used by NLM indexers in assigning MeSH terms for the subject analysis of bibliographic materials, aiming at the construction of the traditional subject headings (3).

MeSH Italian translators have encountered various difficulties. Different linguistic problems have been overcome; others came about during the revision of MeSH translated Italian terminology (5).

**Translation of entry terms**

A recent challenge was to translate the English synonyms, in order to permit multi-entry and easier access to information stored in the MeSH database. This was thanks to the effective collaboration, recently started, with the ISS Library semantic cataloguers (2).

The translation of synonyms (non-preferred terms) is a really demanding task, because some scientific English terms are becoming part of the Italian scientific language and cannot be properly translated. Others have no exact Italian equivalent and terminology needs to be updated. Furthermore, many English MeSH terms, including synonyms,

| | | | |
|---|---|---|---|
| **MeSH Heading** | Corneal Surgery, Laser | | |
| **Tree Number** | E02.594.480 | | |
| **Tree Number** | E04.416.480 | | |
| **Tree Number** | E04.540.825.437 | | |
| **Annotation** | coordinate with specific LASER when discussed | | |
| **Concept 1** (Preferred) | **Corneal Surgery, Laser** | | |
| | **Concept UI** | M0502281 | |
| | **Scope Note** | Surgical techniques on the CORNEA employing LASERS, especially for reshaping the CORNEA to correct REFRACTIVE ERRORS. | |
| | **Semantic Type** | T061 (Therapeutic or Preventive Procedure) | |
| | **Term** (Preferred) | Corneal Surgery, Laser | |
| | | **Term UI** | T682543 |
| | | **Date** | 29-SEP-2006 |
| | | **Lexical Tag** | NON |
| | | **Thesaurus** | NLM (2008) |
| | **Term** | Laser Corneal Surgery | |
| | | **Term UI** | T682544 |
| | | **Date** | 29-SEP-2006 |
| | | **Lexical Tag** | NON |
| | | **Thesaurus** | NLM (2008) |
| **Concept 2** (Narrower) | **Keratectomy, Laser** | | |
| | **Concept UI** | M0463128 | |
| | **Semantic Type** | T061 (Therapeutic or Preventive Procedure) | |
| | **Term** (Preferred) | Keratectomy, Laser | |
| | | **Term UI** | T579367 |
| | | **Date** | 26-MAR-2004 |
| | | **Lexical Tag** | NON |
| | | **Thesaurus** | NLM (2005) |
| | **Term** | Laser Keratectomy | |
| | | **Term UI** | T579368 |
| | | **Date** | 26-MAR-2004 |
| | | **Lexical Tag** | NON |
| | | **Thesaurus** | NLM (2005) |

**Fig. 1.** *Structure of a MeSH descriptor sample record in a selected portion of NLM MeSH Browser.*

have more meanings in Italian or have no exact corresponding terms. The MeSH thesaurus is concept-structured, each record consists of one or more concepts, and each concept of one or more synonymous terms as shown in *Figure 1*.

Preferred terms and their synonyms listed under Concept 1 are translated first. However, any other Italian term is added within a record, as well, in view of a possible future consideration as MeSH term by the NLM.

**Revision of translation**

As emphasized in specialized literature, the importance of annual revisions of biomedical terminology has been "a major concern of translators, and continues to be, a necessity for staying current with the annual editions of MeSH. Each year, new descriptors are added to the MeSH vocabulary, existing descriptor class names are modified, and some descriptors are deleted." *Table 1.* (6).

**Table 1.** *MeSH descriptors increase over the period 2002-2007*

| Mesh | Total descriptors | New descriptors |
|---|---|---|
| 2002 | 20,232 | 847 |
| 2003 | 21,079 | 1,250 |
| 2004 | 22,329 | 666 |
| 2005 | 22,995 | 487 |
| 2006 | 23,885 | 933 |
| 2007 | 24,357 | 494 |

The translation of a new term gives rise to the revision and standardisation of the relative semantic area. The term is looked up in the English tree, at least one branch is opened, similar terms are opened to see the translation, the best translation is chosen and inserted in a new term or modified in a current one. If the new term highlights issues of linguistic interest such as roots of words, Greek or Latin derivation, English words that have different translations according to the Italian use, etc., the correspondent's terminological areas may be checked for revision. Addition of synonyms and consideration of non-preferred concepts amplify this procedure. For instance, the word "system", as considered in Category A (Anatomy), has alternative translations in Italian (*sistema, apparato,* etc.). The choice of the term *apparato* for the translation of the preferred English term "Digestive System" is dictated by the current Italian use, strengthened by tradition. When we were translating only preferred terms, the revision was also concerned with the choice of the best term for all issues, with an eye to standardisation of terminology. Now, the introduction of synonyms triggers selecting the best term for any single descriptor, and adding synonyms as entry terms for any considered record. This implies a series of steps dictated by the way the MeSH Translation Maintenance System (MTMS) works, such as deletion of terms already stored in MTMS, and *ex novo* insertion of new translations (7, 8). Therefore, the introduction of only one new term by NLM subsequently may then trigger the revision of hundreds of records.

Every year, MeSH translation requires the following steps:

- addition of new translated terms;
- revision of terms (this may include working on trees, branches, records, preferred terms, non-preferred terms, both in preferred concepts or non-preferred ones);
- addition of synonyms (new terms and current ones);
- deletion and modification of terms according to NLM annual updates.

**Statistics monitoring**

New terms have represented, for years, the key of revision, made semantically. Monitoring statistics would be helpful to see semantic areas already involved and plan future revision. Data for translation year 2007 are shown in *Figure 2*, where new terms correspond to the addition of NLM new descriptors (494) and new synonyms (6,683) and modified concepts mainly witness revision.

| Language | Italian - ita |
|---|---|
| No. of New Terms | 7477 |
| No. of New Concepts | 0 |
| No. of Deleted Terms | 66 |
| No. of Deleted Concepts | 0 |
| No. of Modified Terms | 390 |
| No. of Modified Concepts | 0 |
| No. of Editors | 5 |

**Fig. 2.** *MeSH Translation Maintenance System (MTMS) activity report for Italian MeSH in 2007.*

We must consider the fact that only in the period 2002-2007, there has been an increase of 4,125 NLM new terms. So far, paper records have been collected to monitor revision, but the introduction of synonyms plus the relative explosion of the information and records to check, have created the need for electronic support. The next step in our work will be monitoring the revision, both semantically and linguistically. Translation memory tools will be considered in order to revise terminology in selected topic areas. Semantically scheduled revision could then be planned for additional areas not included in NLM new terms revision.

## Conclusions

The translation of MeSH synonyms is in progress, and the Italian vocabulary is expanding consistently. A forthcoming ISS release of the database is soon envisaged, boosting both search strategies and information retrieval.We are now considering the possibility of monitoring the progression of our work in order to plan a domestic scheduled semantic revision. Current efforts are being directed towards the enhancement of revision procedure, both semantically and linguistically.

This will include current revision through the translation of NLM new terms and ISS scheduled revision of additional areas selected on the basis of NLM updates, with an eye to a completely-translated automated release of NLM MeSH, including all concepts.

**Acknowledgements**

We gratefully thank Stuart J. Nelson, Jacque-Lynne Schulman and all MeSH Staff who provided us with helpful assistance and support over the period of our work.

**References**

1. Della Seta M, Dracos A. La traduzione italiana del Thesaurus Medical Subject Headings (MeSH). In: Atti del Seminario di studio “Reti per la salute”. Perugia: Sedes; 1999. p. 57-62.
2. Ceccarini A, Falcone MA, Ferrari P. NLM Italian MeSH translation: revision and expansion. A changing future. Poster session presented at: EAHIL Workshop; 2007 Sep 12-15; Kraków, Poland. Available from: http://www.bm.cm-uj.krakow.pl/eahil/ proceedings/poster/CeccariniFalcone.pdf
3. Falcone MA, Ferrari P. Le nuove scelte di catalogazione semantica della biblioteca dell’Istituto Superiore di Sanità. Bollettino AIB. 2002;42(3):333-6.
4. Nelson SJ, Shopen M, Schulman J, Arluk N. An interlingual database of MeSH translations. 8th International Conference on Medical Librarianship; 2000 July 2-5; London.
Available from: http://www.nlm.nih.gov/mesh/presentations/meshtrans/index.htm
5. Ceccarini A, Della Seta M. The Italian translation of NLM MeSH: a collaboration between NLM and ISS. Newsletter to European Health Librarians. 2004 August; 68:40-4.
Available from: http://www.eahil.net/newsletter/68/68.pdf
6. Nelson Stuart J, Schulman Jacque-Lynne. A multilingual vocabulary project – Managing the maintenance environment. European Association for Health Information & Libraries. EAHIL Workshop; 2007 September 12-15; Kraków, Poland.
Available from: http://www.nlm.nih.gov/mesh/multilingual_management.html
7. Nelson SJ. The MeSH translation database: from idea to reality. Paper presented at: Nordic Baltic EAHIL Workshop; 2003 June 25-28; Oslo, Norway.
Available from: http://www.nlm.gov/mesh/presentations/oslo_2003_june/index.htm
8. Schulman JL, Nelson SJ. A Model International Cooperative Project. The MeSH Translation Maintenance System (MTMS). ICML 9, 9th World Congress on Health Information and Libraries; 2005 September 20-23; Salvador-Bahia, Brazil.
Available from: http://www.icml9.org/program/track1/activity.php?lang=en &id=17

# FinMeSH and Metathesaurus Rex - a terminology service for Finnish health care

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**Background of the FinMeSH thesaurus**

The need for a translation of the MeSH thesaurus into Finnish arose in the late 1980's in the Finnish Medical Society Duodecim (www.duodecim.fi), when an electronic guideline database for the physicians in Finland was initiated. Duodecim is a scientific society comprising almost 90% of Finnish physicians and medical students as members. The first partial translation made in 1989, was followed by the full second version in 1997 and a third revised version in 2004.

Now, FinMeSH is updated once a year to match the original MeSH (MeSH Translation Maintenance System) in English. The translation is performed by physicians, and finalized by the National Library of Health Sciences and Medical Terminology Board of the Finnish Medical Society Duodecim. So far the translations have been updated directly from the annual NLM list of new and changed terms into the FinMeSH database. As the National Library of Medicine has developed and implemented a concept-centered vocabulary maintenance system for MeSH, its use in the future is under consideration. The translation maintenance system will facilitate the tracking of the changes within MeSH from one year to another (1). Concepts for which there is no exact English equivalent can be added.

**The FinMeSH thesaurus for indexing and information retrieval**

Search processes in electronic databases must be based on terms, which are familiar to professionals and describe the problem which has to be solved accurately. The FinMeSH was first introduced in 1989 in the Finnish version of Evidence-Based Medicine Guidelines (EBMG, http://ebmg.wiley.com), which is a guideline collection for mainly general practitioners and health care personnel (2). It was soon confirmed that searching in Finnish was appreciated, and easy finding of relevant information is probably contributing to the world-record-high use of electronic databases by Finnish health care professionals (http://www.g-i-n.net/download/files/Kunnamo_sharing_guidelines.pdf). The Finnish medical journals which are included in the database, are indexed in Finnish, too. Indexers who are used to the English version of MeSH can easily and rapidly find the corresponding FinMeSH terms using a web-based indexing tool.

A continuous log file recording the search strategies of the Internet version of EBMG and several other databases for both professionals and the general public provides information on the search terms used, including the most common abbreviations and spelling mistakes (e.g. *Willebrand disease* instead of *von Willebrand disease*). A total of over 50 million

searches have been stored in the log file since the year 2000 when the web version of EBMG was launched. Gradually a lot of synonyms have been appended to the FinMeSH preferred terms. For the time being there are altogether 72,805 terms in FinMeSH, and physicians obtain excellent search hits due to this semantic network. The MeSH scope notes have not been translated, but they are included in English in the FinMeSH database. However, whenever possible the terms are linked to a MeSH-independent electronic dictionary (Finnish Medical Terms) that contains definitions of most MeSH terms in Finnish. Today, FinMeSH is used daily by the leading Finnish health portal (www.terveysportti.fi), the National Library of Health Sciences, the National Public Health Institute and several health districts in Finland.

**Metathesaurus Rex links terms and concepts**

Encouraged by these results, the idea of a metathesaurus called "Metathesaurus Rex" arose in the Duodecim Society in 2003 *(Figure 1)*. The concept was that other electronic vocabularies in Finnish could complement FinMeSH to form a larger entity, and the terms describing the same concept (having the same meaning as the (Fin)MeSH concepts) could be mapped. No single terminology includes all the important concepts in medicine. After the launching of the metathesaurus in 2006, the searching performance has been further improved. Building the metathesaurus has not caused any structural discrepancy between FinMeSH and the original MeSH, since only the terms with the same meaning from other electronic vocabularies have been mapped to existing FinMeSH terms. Thus Metathesaurus Rex is a "miniature UMLS" in Finnish, with FinMeSH as its core vocabulary. In the beginning of the year 2008 the total number of concepts in the metathesaurus was over 53,000, and the total number of terms was more than 114,000. The main vocabularies and classifications that have been included in the metathesaurus so far are: FinMeSH, ICD-10 (International Classification of Diseases), ICPC-2 (International Classification of Primary Care), the ATC -classification (generic drug names by WHO), the NOMESCO Classification of Surgical Procedures (NCSP), the laboratory nomenclature of The Association of Finnish Local and Regional Authorities, and the Finnish vocabulary on nursing. Searches can be made with any of the included terms but the searches are compatible with suitable FinMeSH terms whenever possible.


**Fig. 1.** *A screenview of Metathesaurus Rex*

Metathesaurus Rex is useful in many ways:

- indexing is based on several vocabularies covering a larger scope of the health area, but the compatibility to MeSH is maintained whenever possible;
- search engines (such as one of the major Finnish health portals, Terveysportti) benefit from the vast synonym network and the hierarchic structure of the metathesaurus;
- searches may also be made with classification codes;
- PubMed searches can be made in the Finnish language;
- the information-exchange between different vocabularies and classification systems is flexible;
- translations of the index of EBM Guidelines (which has been translated into several languages) have been produced automatically on the basis of the Finnish Metathesaurus and the MeSH translations included in the UMLS;
- Metathesaurus Rex will be used for the coding of the automatic decision support system (EBMeDS) which is produced by the Finnish Medical Society Duodecim (www.kaypahoito.fi/decisionsupport/decisionsupport.htm). The EBMeDS system contains generic conversion filters that convert clinical data coded with different coding systems (for diagnoses e.g. ICD-10, ICPC-2, ICD-9CM) into concepts (such as "Asthma") that are used when authoring descriptions for decision support functions and programming decision support scripts.

One reason for producing a metathesaurus for indexing, information retrieval and search engines in Finland is that the original MeSH was developed primarily for the American health care system; many terms required to describe Finnish health care are totally lacking. In addition, MeSH was originally designed to describe the biomedical contents of scientific publications and many terms associated with practical problems are missing. The importance of the metathesaurus grows strongly with the introduction of new large information retrieval groups: nurses, patients and citizens. Searching information is no longer a monopoly of the information specialists, scientists and physicians. The new information consumers appreciate searching with familiar terms in their mother tongue.

The work with metathesaurus Rex has also provided some new technical tools such as:

- *Rex Edit* for the maintenance of the metathesaurus;
- *Rexploder Searcher* a tool for the indexer, which shows the indexer all the synonyms, broader terms and related terms of the preferred term (that is all the terms that are added to the search index automatically when a preferred term is added);
- *Rexploder Client*, a tool for the information searcher which shows all the terms (synonyms, narrower terms and related terms) that will be used by the search engine as search terms complementing the original search term;
- *ESDE (EBMeDS Script Description Editor)* that contains an "all-in-one" search engine for classification codes, MeSH terms and evidence-based guidelines and evidence summaries.

Even though the translation of the MeSH and the development of Metathesaurus Rex were initiated in the Finnish Medical Society Duodecim, the help, support and co-operation of the Finnish medical libraries has been of great importance. There is an electronic forum on the Internet, where libraries can contribute with comments and suggestions, and the annual update of FinMeSH is made in close collaboration with the National Library of Health Sciences.

**References**

1. Nelson SJ, Schopen M, Savage AG, Schulman JL, Arluk N. The MeSH translation maintenance system: structure interface design, and implementation. Medinfo. 2004;11(1):67-9.
2. Varonen H, Jousimaa J, Helin-Salmivaara A, Kunnamo I. Electronic primary care guidelines with links to Cochrane reviews – EBM Guidelines. Fam Pract. 2005;22(4):465-9.

# Feature Article

# MeSH-PL: the Polish version of MeSH in catalogues

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***Abstract***
*The implementation of integrated library systems in Polish medical libraries and the opening of the National Union Catalogue acted as a spur to join forces to translate MeSH and create a uniform indexing tool. We aimed to build a mechanism enabling us to distribute bibliographic records as well as to support medical professionals and patient information literacy. All Polish medical university libraries worked together to approve a unified concept for the Polish electronic version of MeSH and the disparate data resources of the three leading centres were integrated into one electronic browser MeSH-PL. The next step was the implementation of MeSH as a subject heading system to the National Union Catalogue, where three significant medical libraries share cataloguing resources at present.*

*Key words*: medical subject headings; translating; library catalogues; Poland

**Introduction**
We do not need to convince anyone that though English has a global position as the *lingua franca* of medical sciences, vernacular medical terminology is a matter of great significance for a large group of our users. The implementation of integrated library systems in Polish medical libraries and launching the Polish National Union Catalogue (NUKAT) prompted us to join forces in the translation of MeSH. In addition, the creation of a standard unified indexing tool was introduced, which would serve as a part of a mechanism enabling records' exchange and helping medical staff and patients in the process of gaining "information literacy". At first we had planned to follow the foreign translators' groups and benefit from their knowledge and experience, but eventually we decided to choose our own path due to specific Polish conditions.

**The recent years**
In 2001, when the community of librarians approved a unified concept for the Polish electronic version of MeSH, an agreement was signed between libraries of all medical universities. Consequently, the disparate data resources of the three leading libraries, which

were the databases of the Central Medical Library in Warsaw, the Main Library of Poznan University of Medical Sciences, and the Medical Library of the Jagiellonian University in Krakow, were integrated into one electronic browser MeSH-PL. The number of translated terms was quite large, but there was an urgent need of revising, supplementing and the unification of current terminology. In most records, the Polish versions of entry terms were lacking and these had to be added. It was not until the English-Polish MeSH browser was positioned on an Internet platform completely independent from any library system, that it became possible to perform all these changes. Since then the MeSH records have existed in several formats and have been able to be imported to various library systems. Joint work on the unified Polish version of MeSH was launched in November 2002.

**Content, content, and content (1)**

The MeSH-PL team decided to translate successively the entire MeSH trees (FinMeSH case: category by category). In this way 61 subcategories (with two-digit numbers) were enriched by providing Polish terminology. MeSH-PL is actualised annually in accordance with the original MeSH. A mirror web page in Polish has been created by the addition of the main headings and entry terms (descriptors and ascriptors) to the original NLM record.

To obtain as many Polish terms as possible, we have to review thoroughly all Polish medical literature available, because the actual Polish medical lexicons and encyclopedias are lacking. The team of translators was recruited from the libaries' staff (graduates of medical schools or natural sciences and librarians). We faced all the typical problems which were experienced and precisely described by our Italian colleagues(2). During the translation procedure, we were able to deepen our understanding of the concept structure of MeSH(3) and gain experience by practice. The MeSH-PL team checked and revised around 14,000 records, adding numerous Polish synonyms, abbreviations and Latin terminology.

**At the very end there is a user**

As the work proceeded, it was obvious that there was a need to put more information from the original MeSH into the Polish mirror site. Until now the following fields were represented: MeSH Heading, Tree Number, Entry Term, See Also, Pharm. Action, CAS type 1 name, Registry Number, Allowable Qualifiers, Entry Combination, Unique ID, MeSH Tree Structures.

Annotations and Scope Notes have not been translated yet. We decided to supply the Polish user with Latin terminology, which is widely used in Polish medical language. A separate field was created to put the Latin terms there. *(Figure 1)*

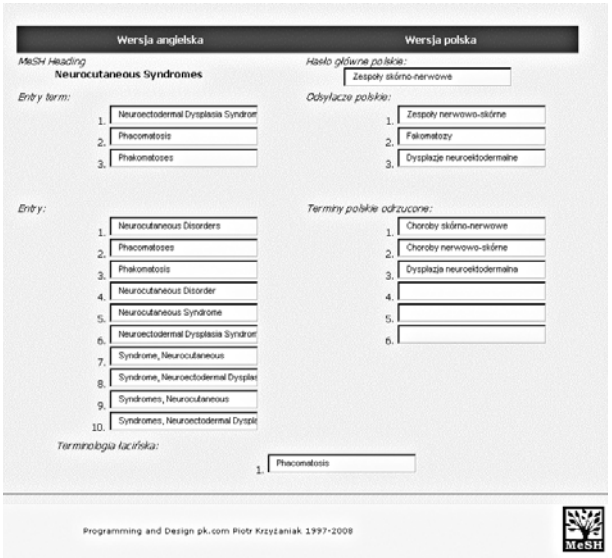


**Fig.1.** *A form from the Polish browser filled out by a translator – the Polish version on the right, the corresponding Latin term below.*

A significant milestone was the implementation of MeSH as a controlled vocabulary

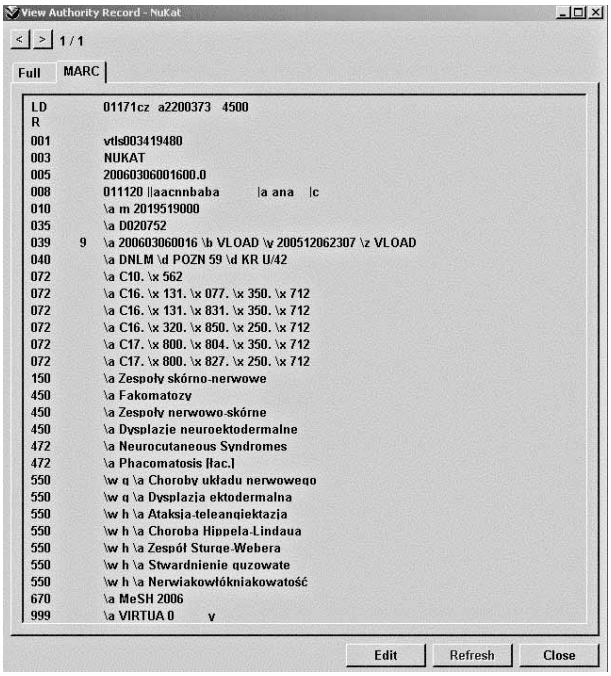


**Fig. 2.** *The same record after transferring to the catalogue: Authority record MARC21 in the library system Virtua 46.7*

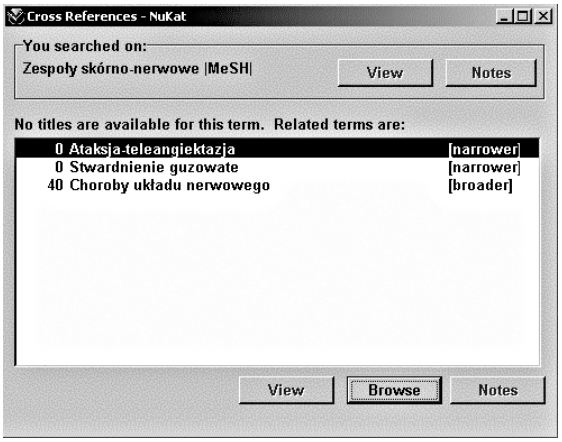


**Fig. 3.** *Catalogue page as it is seen by a user: relationships between the descriptors (narrower, broader)*

in the Polish National Union Catalogue (NUKAT) in 2005. Till now, three large medical libraries have started co-cataloguing their resources. Records downloaded to NUKAT include Polish descriptor and ascriptors, English descriptor, Latin ascriptors, and linked descriptors (relations of subordination-superiority and associative relations). These data are being converted to MARC21 format. Each library decides independently whether to include all these data in the local catalogue, based on their own needs and the library system *(Figures 2, 3)*.

The National Union Catalogue and some libraries use library systems which enable the users to follow the connections between terms and thus optimize the searching strategy *(Figure 4)*.

**Thinking to the future**

Polish medical libraries are in urgent need of training on the unification of cataloguing the medical literature with the use of MeSH terms. In 2006 we prepared and published a first on-line Polish manual on the use of MeSH tags for cataloguers (4). At the outset of the collaboration, the Jagiellonian University Medical Library organized four two-day workshops for participants from all Polish medical libraries. At present, this collaboration is financed by the home institutions and does not receive any funds. In the future, we would like to create a consortium, which would be financed independently. Then we would be able to build a team of specialists, experts in particular subjects and implement the MeSH-PL database in various scientific information products.

The Continuing Education Course given by Stuart Nelson and Jacque-Lynne Schulman (5) at the last EAHIL Workshop (Krakow 2007) offered us appealing prospects for the future.

At present we are awaiting new opportunities to develop MeSH-PL. Collaboration with the Central Medical Library in Warsaw in the field of MeSH and joining MTMS would be the best solution.

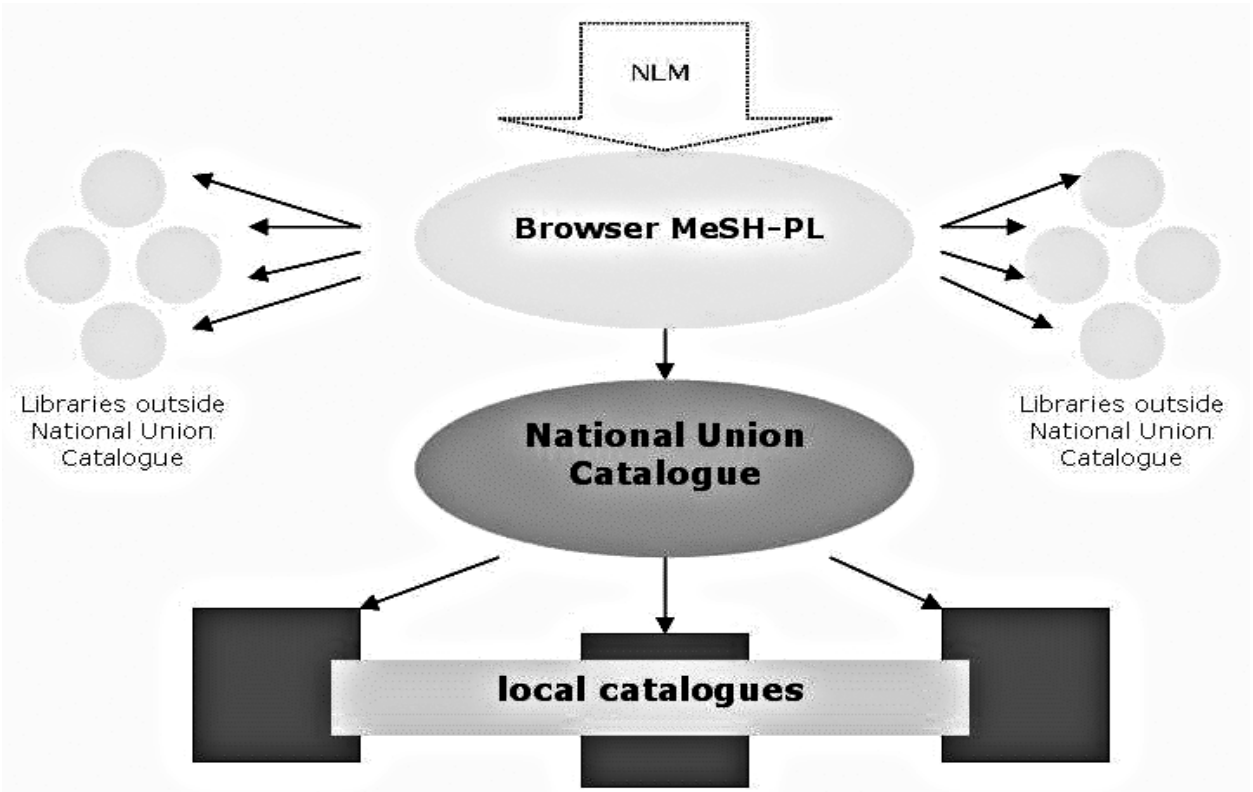


**Fig. 4.** *MeSH authority headings after the three medical libraries started co-cataloguing in the National Union Catalogue.*

**References**

1. Cimino JJ. Desiderata for controlled medical vocabularies in the twenty-first century. Methods Inf Med. 1998; 37:394-403.
2. Ceccarini A, Della Seta M. The Italian translation of NLM MeSH (Medical Subject Headings): a collaboration between NLM and ISS. Newsl Eur Health Libr. 2004;68: 40 - 44. Available from: http://www.eahil.net/newsletter/68/68.pdf
3. Nelson SJ, Schopen M, Savage AG, Schulman J-L, Arluk N. The MeSH translation maintenance system: structure, interface design and implementation. Available from: http://www.nlm.nih.gov/mesh/mtms_medinfo_2004.html; Concept Structure in XML MeSH. Available from: http://www.nlm.nih.gov/mesh/concept_structure.html
4. Medical Library Collegium Medicum Jagiellonian University. The Jagiellonian Library on-line Catalogue. Available from: http://www.bm.cm-uj.krakow.pl/pbm.asp
5. Nelson SJ, Schulman J-L. Using the MESH translation maintenance system. Continuing Education Courses EAHIL Workshop, Krakow 2007. Course description available from: http://www.bm.cm-uj.krakow.pl/eahil/cec.php

# Feature Article

# Optimizing and evaluating the MEDPILOT search rngine. Boosting medical information retrieval by using a morpheme thesaurus

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**Abstract**
*This article describes the implementation and evaluation of a computational linguistic approach to improve the quality of the MEDPILOT medical search engine, maintained by the German National Library of Medicine. At the core of the system lies a new type of multilingual dictionary, in which entries are equivalence classes of morphemes, i.e. semantically minimal units. Documents, as well as user queries, are mapped to these language-independent (conceptual) classes on which retrieval operations are performed. Early results of the evaluation have shown that the used language technology has many advantages in medical information retrieval. In combination with up-to-date search software of the linguistic approach leads to more and better results (i.e. relevant hits) for phenomena such as synonyms, translations and linguistic variants (inflection, derivation, word-composition, etc.). Additionally, a normalization of laymen and expert queries can be achieved. The formal structure of user queries as well as the information needs of MEDPILOT users were analyzed in detail. Results and consequences for the development of user centered design and usability improvements of the search engine will be discussed.*

*Key words:* information storage and retrieval; medical search engines; matural language processing; evaluation; usability.

## Introduction and background

The German National Library of Medicine (ZB MED) is the largest European medical library. It maintains numerous bibliographic databases, which are accessible online via the MEDPILOT-Portal (1). MEDPILOT is a cooperation project of the ZB MED (2) and DIMDI (German Institute of Medical Documentation and Information) (3). With a single request, users of MEDPILOT can simultaneously research a wide range of medical sources and databases by a meta search system.

In this context, the challenges of medical information retrieval (4) in scientific databases are manifold. Firstly, the retrieval system stores unstructured or semi-structured text (such as title, authors, abstract, etc.), and hence, does not

"know" anything about the content. Secondly, the information need of searchers is vague and cannot be formally expressed. Search engines are designed to find those relevant documents of a collection, which *somehow* best fit to a particular user query – as selective as possible. Obviously, these circumstances can hardly be considered helpful in the process of the formal evaluation of such systems.

An additional complexity emerges from the multilingual dimension of information retrieval applied to the medical domain. While clinical documents are typically written in the physicians' native language, searches in scientific databases require sophisticated knowledge of (expert-level) English medical terminology, which most non-English speaking physicians do not have. Hence, some sort of bridging between synonymous or, at least, closely related terms from different languages has to be realized to make use of the information these databases hold.

Furthermore, the user population of medical document retrieval systems and their search strategies are really diverse. Not only physicians, but also nurses, medical insurance companies and patients are increasingly obtaining access to these resources, with the Web adding an even more scattered crowd of searchers. Hence, mappings between different jargons and sublanguages are inevitable to serve the needs of such a heterogeneous searcher community. The simplicity of the content representation of the documents, as well as automatically performed intra- and interlingual lexical mappings or transformations of equivalent expressions become crucial issues for an adequate methodology of medical information retrieval.

In a current project (5), a commercial retrieval solution has been integrated into the MEDPILOT search portal. It is provided by Averbis GmbH (6), a spin-off of the Freiburg University Hospital (Germany). The company offers search and classification solutions particularly adapted to health care needs. The Averbis core technology is specifically designed for the consideration of linguistic variants (such as inflection, derivation, word-composition, etc.) and focuses on the transfer from expert to common language as well as multilingual search in currently seven European languages (7, 8).

Further objectives of this project are, firstly, to analyse the searchers' needs in order to customize the new search engine, and, secondly, to provide a gold standard for measuring the retrieval performance of MEDPILOT before and after the integration of the new search platform. In the second half of 2007 an expert team at ZB MED carried out an evaluation on the efficiency of the new search system, for which preliminary results are presented in this article.

## Methods

*Technical background and implementation*

In a common free-text information retrieval environment (such as the current MEDPILOT implementation), the search for a particular document is based on a (exact) pattern matching operation between the query term(s) and the document terms. Therefore, a query term such as *leukocytes* retrieves all those documents in which this query term occurs literally. On the other hand, documents containing the singular form *leukocyte*, the adjective *leukocytic*, or the compound term *leukemia* cannot be found.

In contrast, the Averbis technology is based upon a unique semantic analysis of texts. Relevant sections - no matter whether parts of words, whole words or phrases - are identified using a new type of dictionary, in which the entries are subwords, i.e., semantically minimal, morpheme-style units. Language specific subwords, which have the same meaning, are linked within and across languages and grouped in terms of concept-like equivalence classes at the layer of a language-independent interlingua.

This methodology started from the assumption that neither fully inflected nor automatically stemmed words – such as is common in many text retrieval systems – constitute the appropriate granularity level for lexicalized content description. Especially in the medical domain, a high frequency of domain-specific suffixes (e.g. "-itis", "-ectomia") and numerous occurrences of complex word forms such as "pseudo | hypo | para | thyroid | ism" or "gluco | corticoid | s" have to be considered. To properly account for these particularities, the notion of subwords, i.e. self-contained, semantically minimal units had been introduced. Thus, completely invisible to the user, the documents are reduced to their essential semantic elements.

By combining linguistic-semantic analysis and state-of-the-art retrieval technologies, documents are normalized and disposed of linguistic variations. Thus, it no longer makes any difference whether searching for "myocarditis", "inflammation of the heart muscle" or German "Herzmuskelentzündung" (*Figure 1*). The described retrieval solution provides every relevant match.

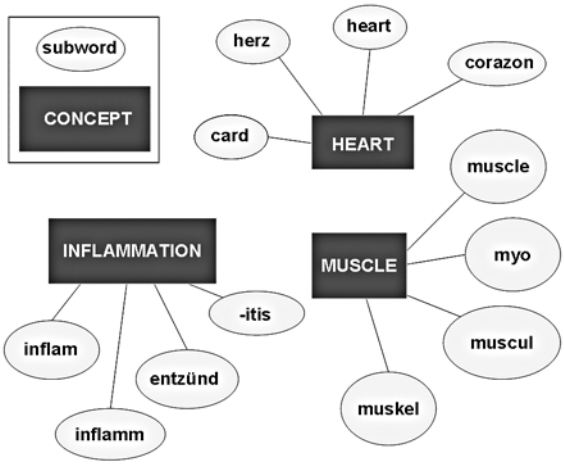


Fig. 1. *Multilingual language repository.*

In the current stage of the project, three different bibliographic resources have been made searchable with the new technology: Medline, CCMED (Current Contents in Medicine), and the online public access catalog (OPAC) of the German National Library of Medicine, resulting in a total of 15.7 million bibliographic items.

*Evaluation methods*

The evaluation process comprised three stages:

- a content analysis of user queries to explore the users' information needs and to discover the scope of special contents such as acronyms, linguistic variations, the use of classical chemical terms, pharmaceutical trade names or brands;
- development and evaluation of a set of test collections to compare the old and the new search system regarding the relevance of hits (9);
- optimizing the usability of the search engine user interface. Usability plays an important role for satisfaction and users trust on a website (10, 11).

*Content analysis of the MEDPILOT logfile*

There were two main reasons for conducting a content analysis. Firstly, for the examination of the relevance of search engine hits, there is a need to construct realistic search queries (and test collections of them). The best way to do this is to find out what kind of medical information, real users of MEDPILOT are looking for. Secondly, it is very important to know about the structure and the content of doctors and students' information needs for the optimization of the search engine user interface.

Consequently, the logs of MEDPILOT queries were analyzed in detail (12). We extracted queries covering seven months (142,922 queries) and drew a random sample of 10,000 queries. Afterwards, we developed a category-system with 24 classes which was constructed by an interplay of deductive and inductive procedures (13). On the one hand, it was based upon what is known regarding medical information seeking (14) and on the other, the content of the material was analyzed. A validation of the category-system was made by two evaluators who examined 150 of the queries. For this task, an intercoder reliability

of 88% was achieved, which can be seen as a sufficient correlation (15). Then, each of the 10,000 queries was assigned to one or more categories by a domain expert.

The content analysis was carried out with the following questions in mind:

- What kind of content are users of MEDPILOT interested in?
- How complex are the search queries? How many words are used for searching medical content?
- To what extent were Boolean operators or field search used?
- To what extent were medical acronyms/ abbreviations used in queries?
- What were the typical misspellings and how many errors were made?
- To what extent do users search for classical chemistry, biochemical content, drugs or brands?

*Development of test collections*

Averbis has installed a test system with the linguistic search engine which was evaluated by ZB MED project members, who are familiar with both medical and biological terminology. Due to the fact that no one can estimate how many of the million items of Medline, for instance, are relevant to a special query (recall), we had to choose a pragmatic way to evaluate our data. For this purpose, two indicators of the performance of information retrieval systems were evaluated: the quantity and the quality (precision) of hits. Each test collection that has been used to compare the output of the old with the new system consisted of 50 queries and reflected a special linguistic aspect which we had examined, which are, amongst others:

1. misspellings;
2. acronyms / abbreviations;
3. synonyms;
4. word-compositions;
5. translations;
6. layman – expert queries.

We compared the quantity (number of hits) and quality (number of relevant hits out of the first 20) of results after querying the Medline and CCMED databases, each within the old MEDPILOT search engine and the new Averbis system. In the future we will construct one test collection which we can use as a representative sample for a wide range of linguistic phenomena.

*Optimizing usability*

The task of optimizing the usability of the Averbis user interface has not been performed yet. Over the next months, doctors and students will participate as subjects for usability-tests. As a result, we will modify the medical search interface for better, user-friendly navigation.

**Early evaluation results**

About a third (35.9%) of the search queries in MEDPILOT consist of one single word. The other 30% of queries contain only two words; 16% of the queries consist of three terms and 6.6% comprise four words. Five words were still used in 3.7% of the search queries and 7.8% of the queries contain more than five words. To summarize, one and two-word queries are the most frequent strategies for searching medical content (nearly 66% of the queries). The examination of the log files revealed that field searching and Boolean operators – others than AND – were rarely used. Acronyms/abbreviations were used in 5.36% while misspellings were discovered in 4.58% of the queries.

*Figure 2* illustrates the type of medical content which users of MEDPILOT searched for. The top categories of medical information needs were diseases, *syndromes, symptoms,* (30.85%), *methods of treatment, therapy and diagnostics* (28.45%) and content about *social medicine, statistics, studies, and epidemiology* (15.58%). One reason for carrying out a content analysis was to investigate to what extent the queries comprised classical chemistry concepts. By studying the results, we noticed that only 2.1% of the queries were

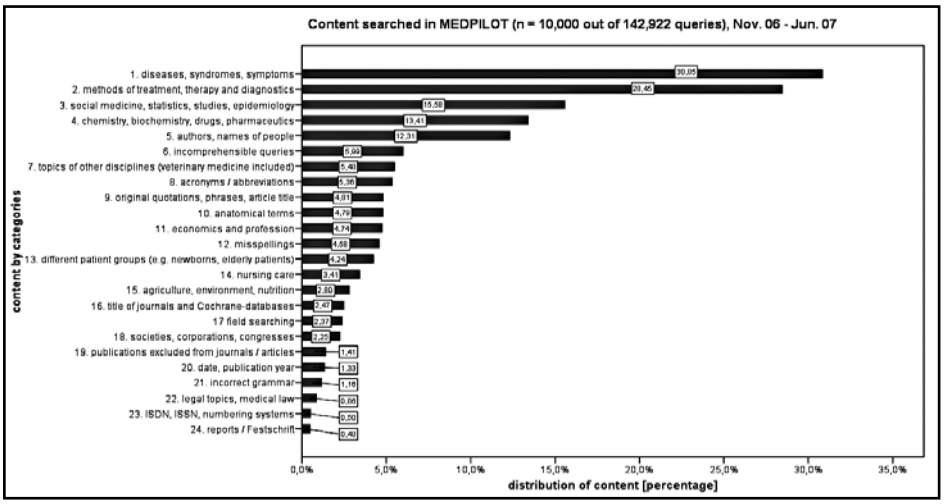


**Fig. 2.** *Content searched in the medical search engine MEDPILOT.*

classical chemistry terms. The other information needs in category 4 were biochemistry, drugs, pharmaceutics and brands.

Preliminary results indicate that the Averbis system has remarkable advantages both in quantity and quality of the results. A first estimation for the databases Medline and CCMED revealed that in the old system the average number of hits is 13.5 times smaller than in the new one. At the same time, when comparing the quality of hits (precision for the top 20 results) users can expect an average of 20-30% more relevant hits through the new Averbis system. On average, 60% of the hits of the top 20 results were relevant. At first sight, improvements can still be achieved by better recognizing misspellings and acronyms /abbreviations. Detailed results will be published soon.

**Discussion**

First results of this project illustrate that the new technique of using a domain specific morpheme thesaurus in a search engine, remarkably boosts the performance when searching for medical content. Limitations of the approach are, firstly, false word segmentations which can not be prevented entirely: For example, on a formal level, the segmentation of the word "nephrotomy" can lead to "nephr-o-tomy" with the concepts *kidney* and *incision* (with "o" being a syntactical infix), but also to "nephr-oto-my", denoting *kidney*, *ear* and *muscle*. Such erroneous interpretations can only be avoided by the manual revision of the morpheme-thesaurus. To some extent, false segmentations can also be counterbalanced by the (relevance-based) ranking mechanism of the underlying search engine. Secondly, ambiguity of words can lead to irrelevant search results, as indicated by, e.g. the word "patient" which has completely different meanings when occurring as a noun or an adjective (a limitation that practically affects any retrieval system). In future, context-sensitive disambiguation methods (16) are incorporated in the language processing engine in order to further enhance the overall performance of MEDPILOT's search behavior.

By analyzing the queries of physicians and medical students, we recognized that the complexity of the used search terms is rather poor. It is almost impossible (at least for search engines) to predict the users' information needs precisely when using only one word to search for specific medical information. As a consequence, we have to think about technical support for users so that they will be better enabled to specify their needs. One solution to this problem might be the integration of a MeSH-term navigation for browsing or to automatically suggest query-associated search terms (e.g. anatomical regions or treatments

for a query denoting a disease). The latter would be the approach of our choice.

## Conclusion

The primary goal of this project is to satisfy the users' needs and wishes when they are using a medical search engine. In this context, the Averbis system adds a substantial value to the MEDPILOT search portal. However, as a consequence of this study, additional strategies have to be developed and implemented in order to assist the users to specify their information needs precisely. This can be regarded as a prerequisite for search engines to continuously deliver high quality results. The forthcoming process of evaluation will also comprise a validation of the results by real users, therefore we will start usability tests in the near future.

**Acknowledgements**

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**References**

1. Medical search engine MEDPILOT. Available from: http://www.medpilot.de
2. German National Library of Medicine (ZB MED). Available from: http://www.zbmed.de
3. German Institute of Medical Documentation and Information (DIMDI): http://www.dimdi.de
4. Hersh WR. Information retrieval. A health and piomedical perspective (2nd edition). New York: Springer. 2002.
5. Project "Optimisation of the MEDPILOT search: multilingualism and normalization of linguistic variations": Available from: http://www.zbmed.de/morphosaurus.html
6. Averbis GmbH. Available from: http://www.averbis.de
7. Markó K, Schulz S, Hahn U. MorphoSaurus - Design and evaluation of an interlingua-based, cross-language document retrieval engine for the medical domain. Methods of Information in Medicine. 2005; 44(4):537-545.
8. Markó K, Daumke P, Schulz S, Klar R, Hahn U. Large-scale evaluation of a medical cross-language information retrieval system. Proceedings of the 12th World Congress on Medical Informatics, Brisbane, Australia. 2007; 392-396.
9. Lewandowski D. Mit welchen Kennzahlen lässt sich die Qualität von Suchmaschinen messen? In: Die Macht der Suchmaschinen. / The Power of Search Engines. Machill M, Beiler M, editors. Köln: Herbert von Halem Verlag. 2007; 243-258.
10. Flavián C, Guinalíu M, Guerra R. The role played by perceived usability, satisfaction and consumer trust on website loyalty. Information & Management. 2006; 43:1-14.
11. Dzeyk W. Vertrauen in Internetangebote. Saarbrücken: VDM Verlag. 2007.
12. Herskovic JR, Tanaka LY, Hersh W, Bernstam EV. A day in the life of PubMed: analysis of a typical day's query log. J Am Med Inform Assoc. 2007;14:212-220.
13. Rustemeyer R. Praktisch-methodische schritte der inhaltsanalyse. Eine einführung am beispiel der analyse von interviewtexten. Münster: Aschendorff. 1992.
14. Davies K. The information-seeking behaviour of doctors: a review of evidence. Health Information and Libraries Journal. 2007; 24:78-94.
15. Wirtz M, Caspar F. Beurteilerübereinstimmung und beurteilerreliabilität. Methoden zur bestimmung und verbesserung der zuverlässigkeit von einschätzungen mittels kategoriensystemen und ratingskalen. Göttingen: Hogrefe. 2002.
16. Markó K, Schulz S, Hahn U. Unsupervised multilingual word sense disambiguation via an interlingua. Proceedings of the 20th National Conference on Artificial Intelligence, Pittsburgh, Pennsylvania. 2005; 1075-1080.

# Feature Article

# Italian Bioethics Thesaurus (TIB): towards standardisation in biomedical terminology

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**Abstract**

*After a concise description of the thesaurus as a controlled terminological tool of ever increasing value in the fields of knowledge and information, the Italian Bioethics Thesaurus (TIB) is analysed in detail. This was developed by the Italian National Institute of Health to facilitate indexing and retrieving of documentation in the SIBIL (Sistema Informativo per la Bioetica In Linea) database which has collected bioethical literature produced in Italy since 1995. Nowadays TIB, whose printed edition was recently published, is progressively acquiring relevance both at national and international level. The main thesauri in the field of bioethics and the MeSH subset in bioethics are also discussed.*

*Key words:* controlled vocabulary; bioethics; terminology; biomedical research; Italy.

## Introduction

Within the sphere of controlled terminological tools, thesauri have always accomplished the objective of guiding users to find information in a given field of knowledge, keeping an eye on the variety and evolution of natural language. In fact, they are historically conceived as dynamic tools constantly reflecting the changes of the lexicon heritage of a language. Therefore, as intermediary structures, thesauri are essentially meant to be a way of easing the communication and interaction between authors, indexers and researchers within the process of information retrieval.

Users' searching habits are to be taken into account when structuring the list of terms of a thesaurus. Entries coming from current vocabulary are the keys leading to the appropriate descriptors (controlled terms) chosen to express a concept within distinct subject domains. Therefore, thesaurus' descriptors may be considered as a structured subset of the wide corpus of terms which form the vocabulary of a language.

Furthermore, thesauri serve as useful and reliable aids for assigning indexing terms to documents stored in bibliographic databases.

By providing a system of references between terms, they ensure that only one term from a set of synonyms is used for indexing one concept, thus avoiding the ambiguity of natural, uncontrolled language.

The semantic structure of a thesaurus as designed by the standard rule ISO 2788/1986 (2. ed.) (1) provides the complete *tool kit* to surf the network of concepts of a given domain. As Foskett clearly says with an evergreen statement "The use of a thesaurus in modern information storage and retrieval systems has not been so much for the purpose of finding fit and apt means of expression as for controlling a vocabulary in the process of analysis of information" (2).

Nowadays, in our fast-moving environment, where Internet and digitisation initiatives are closely merged, thesauri still represent a privileged means of access for a wide range of material (items such as documents, video, photo etc.). Their main goal is the achievement of the most relevant research according to the users' information needs in specific areas of interest.

The principle of classified hierarchies, so that a search can be broadened or narrowed in order to encompass similar or related meaning of a word, may help to consider thesauri as terminological tools sharing the same logic as ontologies.

Ontologies can be defined as sets of terms structured into hierarchical relationships. These terms are those used in a particular field or domain, so they form a sort of restricted controlled vocabulary representing the knowledge about a topic. These sets of data might be developed and maintained by virtual communities of experts who share common efforts to facilitate access to disparate sources. Grouping terms in a family of concepts, thus providing semantic schemes referring to a given subject field, is the key feature of ontologies.

In the area of biology and medicine, for example, terms may be ambiguous whereas within the context of a particular ontology, the meaning of single concepts are clearly defined. This process of identification of concepts leads to the same purpose of thesauri: creating standardised terminological tools in a given field of knowledge.

Certainly, in light of an integration of semantic resources to serve the scientific community, it is desirable that developers of modern thesauri consider the method of working in an open community with continuous feedback between authors and users of an ontology (3).

**Thesauri in the field of bioethics**

The oldest controlled vocabulary in the field of bioethics is represented by the Bioethics Thesaurus, developed by the Kennedy Institute of Ethics (KIE), at Georgetown University (Washington, USA), for the indexing and searching of Bioethicsline.

This is a bibliographic database produced from 1973 to 2000 by the KIE for the National Library of Medicine (NLM), as one of NLM's specialty MEDLARS databases, with grants from the Extramural Program of the NLM and from the Joseph P. Kennedy Jr. Foundation.

Due to the cross-disciplinary nature of bioethics the KIE staff selected English-language material for indexing from many disciplines (medicine, biology, nursing, law, philosophy, religion and the behavioural sciences) by monitoring a variety of sources (40 indexes and databases, over 100 primary sources and the popular media too). As a result, Bioethicsline provided a comprehensive coverage of value questions arising in health care and biomedical research (as professional-patient relationship, allocation of health care resources, professional ethics, abortion, genetic research, mental health issues, organ donation and transplantation, death and dying, human and animal experimentation).

After the dismantling of Bioethicsline in 2001, following the reorganisation of NLM databases, the data were absorbed by two larger databases, depending on the format of the material (4). Journal or newspaper articles and court decisions were merged with MEDLINE into PubMed, while book and audiovisual records were transferred into LOCATORplus, the NLM's online public access catalogue. Statutes and laws were integrated into PubMed if published in journal format, if unpublished or not in journal format they were incorporated into LOCATORplus.

In NLM's plans the integration of Bioethicsline into these resources would allow updating on a daily basis (versus the former bimonthly update) and, first of all, would make bioethics information available not only to bioethicists but also to the wide audience of PubMed and LOCATORplus, that is to say: researchers, physicians, librarians, students and the general public as well.

The conversion process, necessary to carry on the migration of Bioethicsline data, involved the bibliographic work and affected also the terminology. In fact, approximately 80% of the nearly 800 keywords in the Bioethics Thesaurus were the same or considered equivalent to MeSH terms, extracted from NLM's Medical Subject Headings vocabulary used for the indexing of MEDLINE and other MEDLARS databases. When searching, equivalent bioethics keywords were automatically mapped to the appropriate MeSH headings (which in most cases were not an exact match to the original keywords), but the remaining part of the vocabulary was constituted of terms reflecting the specificity of bioethics. Thus the NLM and the KIE worked in conjunction at the development of the terminology covering ethical issues, for the inclusion of unique keywords from the former Bioethics Thesaurus in Medical Subject Headings, and the implementation of a search filter allowing PubMed users to find bioethics-related citations.

*MeSH subset in bioethics*

This goal was achieved with the creation of a bioethics subset strategy, based on a set of terms looking for records from journals that commonly publish articles on bioethics, records that contain frequently used ethics-related text words or MeSH headings, and all records produced on ongoing basis by the KIE bibliographers and indexers.

The bioethics subset is available on the subset pull-down menu on the PubMed limits screen (where other limits can be chosen to further refine the results) or can be included in the search statement itself by combining the term "bioethics" with the tag "sb" (standing for subset) in square brackets, as in the following example: eutanasia AND bioethics [sb] (5).

The complete structure of the bioethics subset, regularly revised, is available at the address: http://www.nlm.nih.gov/bsd/pubmed_subsets/bioethics_strategy.html.

As for the ongoing expansion of the MeSH vocabulary in the area of bioethics the immediate result was the creation of the new subheading ethics "used with techniques and activities for discussion and analysis with respect to human and social values" and 89 new bioethics descriptors, such as *Anonymous testing, Posthumous conception* and *Ethics, Research* (6).

As a matter of fact the Bioethics Thesaurus has exerted its influence not only on the MeSH terminology, as seen above, but also on a variety of controlled vocabularies developed by European institutions and organisations involved in bioethics, which adapted and adjusted the KIE keywords into appropriate terms reflecting the evolution of bioethics in their social and cultural context. This is the case of the Thesaurus Ethics in the Life Sciences, just to mention an example, developed by the German Reference Centre for Ethics in the Life Sciences (DRZE), in collaboration with the KIE

and some European partners, for the indexing and searching of the BELIT database (7).

**The ISS research project in bioethics**

The ethical debate on the developments of medicine, life sciences and biotechnology was very lively in Italy in the Nineties and the ISS was soon involved in bioethical issues related to scientific research. In February 1999, an internal Ethical Committee was established, in order to concretely answer the need of evaluating bioethical problems raised by the ISS research programs (www.iss.it/coet).

In 2001, the ISS Documentation Service proposed the development of an integrated system for data collection and exchange of documents related to bioethics. A project was soon launched with the aim of creating a user-friendly, highly-flexible tool to help health professionals, researchers, teachers, students, citizens and patients to find information in the bioethical field and to better organise and coordinate Italian information resources. A survey carried out in 2002-2003 showed that this coordination was still of utmost importance (8). The result is the SIBIL website (Sistema Informativo per la Bioetica In Linea, Italian Online Bioethics Information System) available in Italian and English on the ISS website at the URL, www.iss.it/sibi.

*The structure of SIBIL*

SIBIL allows an easy and flexible access to a rich set of up-to-date information on bioethics. Through the SIBIL website it is possible to access the homonymous database, which is the core of the whole system and is searchable through Italian, English and French interfaces. SIBIL database records and indexes bioethical literature produced in Italy since 1995, *i.e.* journal articles, books, chapters from monographs, grey literature, Italian and international regulations on bioethics. The database at present has more than 6000 records.

SIBIL, in addition to collecting data from printed and electronic sources, provides information on courses and masters in bioethics held by Italian Universities, on educational programs, events and congresses organised in Italy and abroad on themes related to bioethics. It also provides news (and "hot topics") on the national ethical debate which are updated daily, and links to other relevant websites, Italian databases, institutional and international sites and bioethics journals.

**The Italian Bioethics Thesaurus (TIB)**

Within the framework of the SIBIL Project and with the aim of providing standardised and controlled vocabulary to facilitate indexing and retrieving of documentation in the SIBIL database, an Italian thesaurus in the field of Bioethics was developed in 2001.

A first step towards the creation of TIB, structured in accordance with the guidelines of the International Organization for Standardization (9), was the identification of a nucleus of terms describing the most significant concepts (and related terms) in the subject of Bioethics. This initial list was produced translating into Italian approximately 800 terms of the Bioethics Thesaurus of the Kennedy Institute of Ethics (KIE), of the Georgetown University of Washington (10) and subsequent updates of 2000 and 2001 (http://bioethics.georgetown.edu/publications/). After this date, as already mentioned above, the Bioethics Thesaurus merged into the MeSH vocabulary, in the Humanities category (K01), subcategory Ethics (K01.316) (11).

The original corpus of terms which TIB inherited from the Bioethics Thesaurus was strongly adapted to the evolution of Bioethics in recent years and to the Italian environment. This task was carried out by a group of bioethicists and information professionals, who worked together in the construction and implementation of TIB and who consulted qualified experts and researchers to solve cases of ambiguity in terminology and to reach a correct understanding of some particular fields of knowledge. Their

combined efforts resulted in a vocabulary which now numbers over 1000 descriptors linked by semantic and hierarchical relationships.

Since information in bioethics is generated and disseminated both through the traditional scientific communication channels and the mass media, TIB's dynamic structure is in constant refinement in order to better reflect the language of science and also that of the general public, in accordance with the process of perception of science and research by public opinion.

TIB is, in fact, regularly revised and is adjusted to reflect changes and include new terms and concepts which might develop in the bioethics domain or in emerging areas of biomedicine and related disciplines. A semantic analysis of currently indexed documents allows a constant evaluation on the most relevant points of debate in Italy. Concepts like *ghost surgery* or *insurance selection bias*, for instance, are rarely debated in Italy and therefore they have not been included in the list of Italian descriptors, though they originally appeared in the Kennedy Bioethics Thesaurus (12). On the other hand, it is difficult to find a corresponding MeSH heading for the Italian *accanimento terapeutico,* which is the term currently used (with a slightly negative connotation) and a hot topic in the Italian debate (13). With regard to this, an investigation on TIB main areas of concern was carried out in 2006 by grouping relevant thesaurus descriptors into broader classes, according to the KIE classification scheme used for selecting bioethics citations for PubMed and LocatorPlus. The study revealed that areas like *assisted reproductive technologies*, *death and dying, environmental ethics* and *genetic interventions and research* were those of main interest in Italy (14).

A brief conceptual explanation in Italian (scope note) for each TIB heading helps considerably in giving directions on how to interpret the term. Names of institutions, organisations, countries (etc.) are not included in TIB. They are however collected in a subject catalogue available online.

TIB includes concepts taken from other disciplines such as philosophy, law, social sciences in accordance with the interdisciplinary nature of bioethics.

A close collaboration is also constantly maintained with other institutions and vocabularies such as the already mentioned MeSH thesaurus and the DRZE.

Soon after its creation, TIB was made available online within the SIBIL homepage www.iss.it/sibi. In 2006 a printed version was produced by the TIB Working Group and published within the ISS series "Strumenti di riferimento" (Reference documents) (15).

In addition, TIB was recently presented at the 12th EURALEX International Congress which was held in Turin (Italy) in September 2006 (16).

The working group is presently carrying out a complete revised translation in English of TIB which will presumably be published in the same ISS series by the end of 2008.

**Conclusions**

The concept of bioethics refers to areas such as medical ethics, focusing on rights and duties of health professionals and patients, as well as to other issues more generally concerned with the social impact of technology, and on biomedical, behavioural and genetic research involving human participants and animals. Bioethics-related topics are often discussed by mass media, but relevant information is often still not easy to find, as it is scattered through a variety of sources, due to its interdisciplinary nature, affecting science, law and philosophy (17). Therefore, on one hand we should

consider that information tools development and availability is essential for participation in the current ethical debate, taking place at a national, European and international level, and, on the other, that the increasing demand for updated and reliable information by citizens, requires these tools to be easily and promptly accessible to the general public.

The European Commission funded over the latter years, various projects, related to the development of information platforms in the field of bioethics. Among these, EURETHNET (European Information Network Ethics in Medicine and Biotechnology, http://eurethnet.drze.de) was launched in 2002, with eighteen partners, for the development of an information network integrating European databases and information resources.

The Seventh European Framework Programme (FP7) for research and technological development is the European Union's main instrument for funding research in Europe in the years 2007-2013. One of the FP7 areas is designed to create the necessary conditions for an informed debate on the topic of *ethics and science*. Initiatives aimed at creating and supporting pan-European information platforms will be funded, and, among these, a European Ethics Documentation Centre. The Italian Bioethics Thesaurus and the SIBIL database are expected to be included within this project, which, if approved, should lead to the integration of local information resources into a common European gateway.

Regarding this, it should be noted that the Italian Bioethics Thesaurus, in its latest version of 2006, has already been included in the Health and Medicine Section, within the Network of Excellence of official Italian Language (Rete di Eccellenza dell'Italiano Istituzionale, (REI) /www.reterei.eu/index.htm/). REI is a project developed by the Italian translators working at the European Commission in order to establish a point of contact between various initiatives. It is aimed at making the Italian communication clear, understandable, accessible to all and qualitatively adequate, and with the aim of sharing information resources and working tools.

Bioethics is a topic at the heart of the international debate. It is important, therefore, that the Italian scientific literature and terminology in this area are adequately represented and can thus participate fully and with constant updates, to technical and semantic European information tools. TIB terminology might therefore become an Italian reference standard.

**References**

1. ISO 2788/1986 (2. ed) Documentation. Guidelines for the establishment and development of monolingual thesauri. Geneva: International Organization for Standardization; 1986.
2. Foskett DJ. Thesaurus. In: Readings in information retrieval. Edited by Sparck Jones K and Willett P. Morgan Kaufmann Publishers: San Francisco; 1997. p. 111-34.
3. Smith B, Ashburner M, Rosse C, Bard J, Bug W, Ceusters W et al. The OBO foundry: coordinated evolution of ontologies to support biomedical data integration. Nature biotechnology. 2007;25(11):1251-5.
4. Lou Knecht L. Organization of National Library of Medicine bibliographic databases. NLM Technical Bulletin. 2000;314(May-June).
5. Nahin AM. Space life sciences and bioethics: New PubMed subsets. NLM Technical Bulletin. 2001;322(September-October).

6. Rosov J. MEDLINE data changes: 2003. NLM Technical Bulletin. 2002;329(November-December).
7. German Reference Centre for Ethics in the Life Sciences (Deutsches Referenzzentrum für Ethik in den Biowissenschaften, DRZE). BELIT (Bioethics Literature Database). Bonn: DRZE; 2002. Available at: http://www.drze.de
8. Della Seta M. Sellitri C. Le strutture di documentazione in Italia nel settore della bioetica: un'indagine su realtà e prospettive. Ann Ist Super Sanità. 2004;40(3):297-307. Available from www.iss.it/binary/publ/publi/403297.1107861780.pdf/
9. UNI ISO 2788. Linee guida per la costruzione e lo sviluppo di thesauri monolingue. Milano: Ente Nazionale Italiano di Unificazione; 1993. p. 2.
10. Kennedy Institute of Ethics. Bioethics Thesaurus. Washington: Georgetown University; 1999.
11. Kahn TJ, Ninomiya H. Changing vocabularies: A guide to help bioethics searchers find relevant literature in National Library of Medicine databases using the Medical Subject Headings (MeSH) indexing vocabulary. Kennedy Institute of Ethics Journal. 2003;13(3):275-311. Available at http://bioethics.georgetown.edu/publications/changingvocab.pdf
12. Navarini C, Poltronieri E. Thesaurus Italiano di Bioetica (TIB). Ann Ist Super Sanità 2004;40(3):317-23.
13. Tarquini D. L'insostenibile leggerezza della *futility*. Janus 2007;7(27):109-13.
14. Della Seta M, Pizzarelli S. A new Italian information resource on Bioethics and its integration with other European systems. 9th EAHIL Conference Santander (Spain), 20-25 September 2004. Available from: https://193.146.74.81/eahil/Abstracts/FullText/Dellaseta.rtf
15. Gruppo di studio "Tesauro italiano di bioetica". Tesauro italiano di bioetica. Roma, Istituto Superiore di Sanità; 2006. (Strumenti di Riferimento, 06/S3). 132 p.
16. Della Seta M, Napolitani F, Pizzarelli S, Poltronieri E. Thesaurus Italiano di Bioetica: un esempio di lessico specializzato nel settore biomedico. In: Corino E, Marello C, Onesti C, ed. 12. Congresso internazionale di lessicografia (EURALEX). Atti; 6-9 settembre 2006; Torino. Alessandria: Edizioni dell'Orso; 2006. p. 825-30.
17. Irving DN. What is Bioethics? In: Koterski JW. Life and learning X: proceedings of the tenth University Faculty for Life Conference. Washington DC: University Faculty for Life; 2002. http://www.all.org/abac/dni010.htm

# Work in progress: a European integrated curriculum in Evidence-Based Medicine

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The whole idea started out with a systematic review about the effect of postgraduate teaching in EBM(1), which showed the disappointing conclusion that people might gain some knowledge, but there was no measurable effect in attitude or behaviour. Most of the courses in the review had taken place as so called "stand alone" courses, outside the clinical setting and day-to-day work. Feeling that they needed to do better, a group of EBM-instructors from 9 countries applied for some money from the European Union, and were rewarded with funding from the EU-Leonardo programme for a pilot-project to develop a European Curriculum in evidence-based medicine that can be integrated in the day-to-day work of doctors in training.

The program is built on the EBM-cycle: Learning starts from a medical problem of a real patient seen in a clinical setting, where the learner can practice turning a problem into a PICO-style question. They learn where and how to search for the best available literature, how to do a critical appraisal, and how to read and interpret the study results in order to find an answer for their patients' problem. They have to communicate the results to the patient, trying to elicit their preferences and help them make a shared decision. This real time learning will hopefully interconnect theory with the care of the trainee's own patients. Learning will be supported by facilitators (senior colleagues, mentors etc.) who can help with the practical skills, integrating the results into patient care, but also be available for discussion and to be used as an additional resource. However, most of the learning process (in particular of the methodology) will be supported by a web-based learning program which enables the learner to work at their own speed and the times available to them. Small exercises and assignments provide feedback all the way through. Over time, learners are expected to build up a portfolio about their learning progress.

This blended approach provides an opening to learning opportunities for EBM even in settings where opportunities for teaching EBM face to face are not available, due to lack of knowledge or lack of resources from senior colleagues, especially in smaller hospitals or ambulatory settings, in places with little local EBM-expertise, or in countries with an evolving EBM-community. Translation of the course into other European languages such as Spanish, French, Dutch, German, Italian, Polish, Hungarian and more will allow participants to study the new concepts in their own language and thereby lower potential language barriers.

From the outset of the project, the importance of getting librarians involved was recognised, both in terms of how the resource was developed, and also with a view to supporting implementation in the clinical setting. As well as placing a librarian on the Steering Committee, the modules include sessions on question formulation and finding the evidence. But it is also recognised that librarians are uniquely placed to help publicise the learning opportunities that the resource could provide, be excellent signposts for potential learners, and provide added support in the clinical setting.

Ultimately it is hoped to get cross-European accreditation, to facilitate the mobility of doctors and health care professionals within Europe, but to achieve this goal a little more work is needed. If you want to monitor progress, have a look on www.ebm-unity.org.

**References**

1. Coomarasamy A, Khan KS. What is the evidence that postgraduate teaching in evidence based medicine changes anything? A systematic review. BMJ 2004:329;1017

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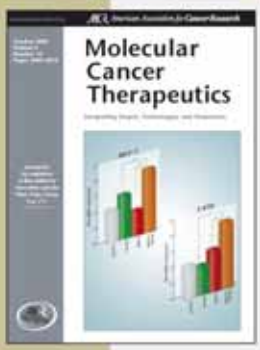


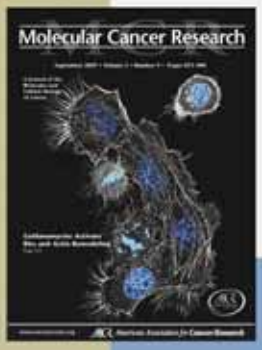


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# The 11th European Conference of Medical and Health Libraries, 23rd - 28th of June 2008, Helsinki, Finland

## *Towards a new information space - innovations and renovation*

The EAHIL 2008 Helsinki conference offers you a high quality scientific program. The scientific proceedings cover many interesting and current themes. Especially the following topics inspired the authors: *Virtual communities and virtual libraries*, *Evidence-Based practice*, *Education and professional development* and *new technologies and applications*. You also have the possibility to participate in a number of inspirational Continuing Education Courses.

In addition to a good scientific program, the social program is also an important part of the conference experience. In these pages we wish to give an idea of the social program available to you in Helsinki. Hopefully this will make it easier to choose the right one for you, when **the registration for Early Birds begins, on February 15th 2008**.

**Tuesday 24th June 2008**

**Concert in the Church in the Rock (Temppeliaukio Church), at 19.00-20.00 (Lutherinkatu 3, Helsinki)**

The Temppeliaukio Church is one of Helsinki's most popular tourist attractions. It is built into bedrock, so the interior walls are created naturally by the rock. Natural light brightens the inside through 180 glasses between the dome and the wall. The church was designed by architects Timo and Tuomo Suomalainen and opened in 1969. The church is often used for concerts, because of its excellent acoustics.

The Concert is free of charge.

Church in the Rock *(Photo by Markku Juntunen, City of Helsinki Picture Bank)*

**Wednesday 25th June 2008**

**Get-together for EAHIL Conference first timers, at 10.00-12.00**

Skiing without skis - in the middle of summer?! A treat for EAHIL first timers in Helsinki

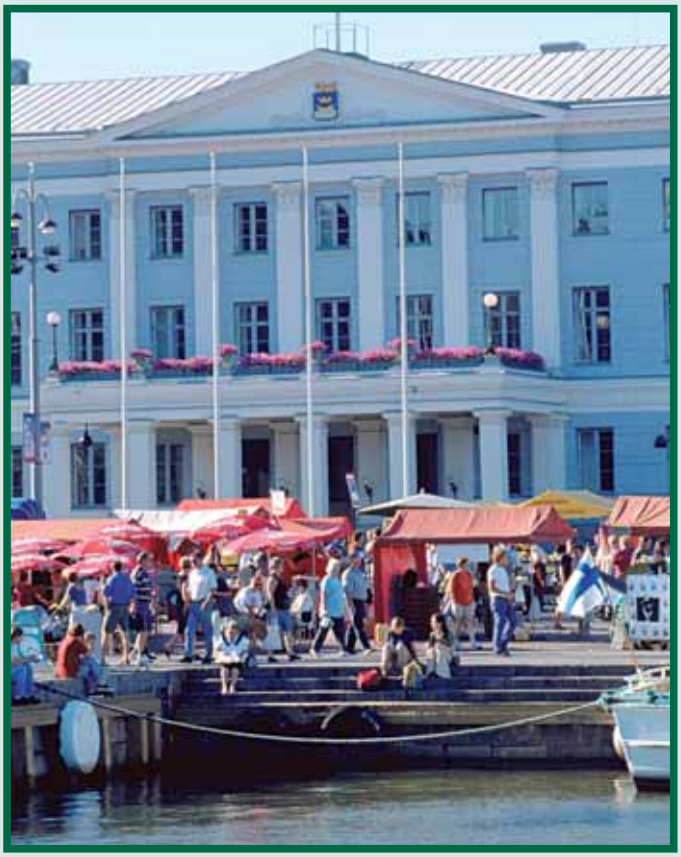
Forget the cocktail dress and the high heels for this year's first timers' event. Instead, slip into something more comfortable, and get ready for a slightly different experience...

When in Rome, do as the Romans, and when in Finland...? Well, the answer is obvious. Forget the skis, take a pole in each hand, place your right foot before your left and the other way round, and come join us in a session of Nordic walking! Starting at 10 a.m. and ending around two hours later, it will leave you plenty of time to switch gear and get ready for the conference's opening ceremony.

Nordic Walking
*(Picture by Comma Image, City of Helsinki Picture Bank)*

**Welcome Reception at the City Hall.**
**18.00-19.30 (Pohjoisesplanadi 11-13, Helsinki)**

EAHIL participants will be welcomed by the city's representatives in the City Hall, located in Helsinki's neoclassical centre



City Hall *(Photo by Matti Tirri, City of Helsinki Picture Bank)*

**Thursday 26th June 2008**

On Thursday afternoon there are several options for library visits:

- Celia - Library for the Visually Impaired
- Finnish Institute of Occupational Health Library and Information Services
- Helsinki City Library in Viikki
- Library of Parliament
- National Library of Finland
- National Library of Health Sciences - Terkko
- National Public Health Institute Information Service and Library
- Orion Corporation Library and Information Services
- The Social Insurance Institution Information Service
- Viikki Science Library

National Library of Health Sciences - Terkko
*(Photo by Jussi Tiainen)*

For those who are not interested in library visits, Thursday afternoon is an excellent opportunity to look around in Helsinki!

National Library *(Photo by Matti Tirri, City of Helsinki Picture Bank)*

**Friday 27th June 2008**

**Conference Gala Dinner at Kalastajatorppa, at 19.00-23.00 (Kalastajatorpantie 1, Helsinki)**

Kalastajatorppa is a well-known and esteemed banqueting place in Helsinki. It opened in 1937 and since then many international gatherings have been arranged there, for example a gala reception during CSCE in 1975, and the meeting of Bill Clinton and Boris Yeltsin in 1997. Kalastajatorppa is situated beside the sea and surrounded by Finnish natural beauty. In the dining room *Siirtomaasali*, where we will be having our dinner, one whole wall has only windows, so we can watch the midnight sun while we eat. Although Kalastajatorppa is situated in the natural environment, it is still only ten minutes travel from downtown. Transport to the gala dinner will be arranged.

Töölö Bay *(Photo by Comma Image, City of Helsinki Picture Bank)*

*(Comma Image, City of Helsinki Picture Bank)*

More about the conference in the May issue of the *Journal of the European Association for Health Information and Libraries*.

In the meanwhile, please visit the Helsinki 2008 web page (www.congreszon.fi/eahil_2008/) and the Helsinki 2008 conference blog (http://eahil2008.blogspot.com/) regularly.

Visit THE EAHIL 2008 HELSINKI WEB PAGE www.congreszon.fi/eahil_2008/ for information about
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REGISTRATION (www.congreszon.fi/eahil_2008/registration/)
EARLY BIRDS: February 15th - March 31st, 380 €
REGISTRATION: after March 31st, 430 €

# CEC Courses

Greetings from the T CEC- working team for the Continuing Education Courses at EAHIL 2008 in Helsinki.

We are now in the final stages of planning the Continuing Education Courses for our Helsinki conference. We have been very lucky with the teachers; we are able to offer you a good mixture of professional courses in different kinds of subject areas. Our objective has been that the courses will give you something concrete to put into practice but also offer a wider and deeper insight into your daily work.

We have had great help from previous years' CE courses at EAHIL: good teachers and interesting subject areas. And also we have been offered very good ideas and best practices from our EAHIL colleagues. Here, like everywhere else, it is the networking that helps everything to proceed smoothly. At this point, we are happy to give you this short summary of what we will be offering in June in Helsinki:

**Anne Brice** and **Jo Hunter** will give two courses: *A user-friendly approach to becoming an Evidence-Based practitioner,* and *Don't forget the food! How to practice critical appraisal in a Journal Club, and Implement Evidence-Based practice in a local library and information setting*

**Liz Blankson-Hemans** will also give two courses: *Effective marketing for change management & changing roles,* and *Strategic planning for information services*.

**Chiara Bassi** and **Vanna Pistotti** will talk about *Supporting the evidence: clinical trials, health technology assessment reports, practice guidelines. Where to find and how to search them*.

**David Herron** will give a hands-on course on *Bridging the gap between PubMed and the Entrez Life Science Databases*, while **Astrid Müller** will teach a hands-on CEC on *PubMed searches*.

**Robert Taylor** will give two hands-on workshops: *CAB abstracts database* and *global health*.

**Friedhelm Rump's** hands-on topic is *The latest tools and tricks for better Internet searching.*

**Guus van den Brekel**'s hands-on CEC is titled *Health2.0 & Library2.0: power to the user (and the librarians)*.

We also have a teacher from Finland, **Minna Lakkala,** whose CEC topic is *Progressive inquiry learning*.

Some details are still to be finalized but all the above are confirmed, and you will find more information on the conference website http://www.congreszon.fi/eahil_2008/ when the registration starts.

Welcome to the Courses – we are really looking forward to seeing you in Helsinki!

**Tiina Heino** (Helsinki)
**Ann Liljegren** (Gothenburg)
**Tuulevi Ovaska** (Kuopio)

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# Feature Article

# Hoidokki: validating the Finnish thesaurus of nursing science in the University of Kuopio Library


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**Abstract**

*This paper describes the development and implementation of Hoidokki, a Finnish controlled vocabulary thesaurus for nursing which was published during 2007. The rationale underlying the need for a specialised thesaurus for nursing sciences is examined, together with a discussion of some of the problems and challenges involved. The methodology employed to build the thesaurus is fully enumerated, together with details of the chronology of its implementation, testing and full validation processes. Finally, feedback from all sectors of users has already been used and will continue to inform the future development of this important tool for nursing science and documentation.*



*Key words:* nursing; thesaurus; controlled vocabulary.


## Introduction

Knowledge utilization is an essential component of today's nursing practice and health care system. Despite advances in the knowledge generation, the gap in knowledge transfer from research to practice continues to exist. Although many research results demonstrate an increased awareness of the importance of Evidence-Based Practice and literature searching, there are still many nurses who have no such access to the literature, or whose use of literature is scarce. To enhance the use of literature in clinical settings,

a project to ensure that nurses would more easily search and find national as well as international literature in databases was launched in 1999 by The Finnish Nursing Education Society (www.shks.fi). The objective was to compile a Finnish nursing thesaurus, due to the perceived lack of appropriate search terms describing the nursing domain in existing thesauri. The vocabulary is based on terms of the Medline thesaurus MeSH (Medical Subject Headings) by the National Library of Medicine and the International Classification for Nursing Practice (ICNP) by the International Council of Nurses.

When searching for information about a potentially relevant topic, it is often easier to use the language with which one has the most fluency. The translations enable users, not completely fluent in English, to more readily identify articles which are of sufficient potential interest to warrant reading. This paper describes the development project and structure of the vocabulary as well as the validation process for indexing nursing science to databases.

**The structure of the vocabulary**

The lack of a nursing thesaurus in Finnish had become apparent to both nursing professionals searching for nursing knowledge and librarians indexing nursing literature to databases. The Finnish Medical Society Duodecim has translated the thesaurus of Medline and those FinMeSH terms are used for indexing medical literature in Finland. Thus, the goals of the project for compiling a controlled nursing thesaurus were threefold:

1. to provide access to literature for nursing staff in care settings, thus improving the information management skills of health care providers, supporting research and the integration of best practices in health care organizations;
2. to support indexing purposes; especially indexing Finnish nursing knowledge to promote evidence-based practice;
3. to create a tool to manage nursing data warehouses.

Finland is a bilingual country: Finnish and Swedish are official languages, which makes the situation even more challenging. As English is the most common both research and database language, a “three-lingual” vocabulary was required.

A group of six experts from different fields of nursing was responsible for the thesaurus development. Several linguistic and indexing experts were consulted. The Delphi technique was accepted as a tool for the project, i.e. during the development process, members of the panel would make their statements regarding the importance of the terms suggested by the project manager. The terms were chosen on the basis of the panel’s consensus, which was determined to be 5 out of 6 experts’ agreement. The amount of four rounds was used for compiling the first version of the vocabulary (1).

The first version of the vocabulary, (in Finnish "Hoidokki"), is based on:

1. Terms from the thesaurus of Medline, i.e. MeSH by the National Library of Medicine. The terms were chosen using the search terms *nursing* and *health care*. The Finnish translation of the MeSH thesaurus, FinMeSH, was also used to check the cultural validity of English terms. Nursing terms, approx. 500, were selected from the MeSH thesaurus by the Delphi method (consensus at least 75 %). Of these, the expert group first selected 350 terms, which were defined and validated.
2. Additionally 150 terms were added from the International Classification of Nursing Practice (ICNP) developed by the International Council of Nurses. All terms were translated into Finnish and Swedish and tested again both by using them for indexing research and in clinical nursing instructions.

3. A variety of terms were, by using the Delphi method, added by the expert panel responsible for the thesaurus development (2).

The ten themes of the compiled vocabulary have been named by the knowledge base of nursing. However, it was important that the main structure of the original MeSH was retained. Thus, the ten themes of the vocabulary are:

1. Health;
2. Philosophical Principles of Nursing;
3. Nursing Interventions;
4. Nursing Sensitive Outcomes;
5. Nursing Practice;
6. Nursing Education;
7. Nursing Management;
8. Nursing Research;
9. Health informatics;
10. Actors.

The present version (1.2) of the Nursing Vocabulary, consisting of 831 terms, is divided in 10 themes with categories and subcategories. 255 terms are non-MeSH terms; 137 represent terminology from the ICNP. The rest of the terms are from MeSH or they are added by the expert panel based on feedback. Some of the terms have related terms and synonyms. The most expansive theme is the first one: *Health* (*Table 1*). It has 204 terms in 14 categories of which four have subcategories. The theme *Nursing Interventions* has 110 terms in four categories: most of the non-MeSH terms are to be found here. The theme *Nursing Practice* has 29 terms in 19 categories. In the theme Philosophical Principles many non-MeSH terms are to be found (3).

The relationships between the terms are identified in the vocabulary. The relationships can be either semantic (related and preferred terms) or hierarchical (broader and narrower terms).

The vocabulary is in electronic format and available on the website of the Foundation for Nurses' Education, http://www.shks.fi. The vocabulary consists of an instruction for indexing purposes, an alphabetical part, three thematic parts of a thesaurus type (in all three languages: one in Finnish and two in Finnish together with Swedish and English translations).

**Validating the Hoidokki in the Library**

The financial wherewithal of Sairaanhoitajien Koulutussäätiö (The Foundation for Nurses'

**Table 1.** *The structure and content of the vocabulary*

| THEME | categories | Terms | Related terms | Preferred terms | Narrower terms |
|---|---|---|---|---|---|
| 1. Health | 14 | **204** | 10 | 6 | 62 |
| 2. Philosophical Principles of Nursing | 6 | **57** | 4 | 2 | 3 |
| 3. Nursing Interventions | 4 | **110** | 12 | 5 | 49 |
| 4. Nursing Sensitive Outcomes | 4 | **33** | 4 | 1 | 2 |
| 5. Nursing Practice | 19 | **29** | 4 | 0 | 0 |
| 6. Nursing Education | 6 | **40** | 2 | 0 | 3 |
| 7. Nursing Management | 5 | **121** | 16 | 3 | 30 |
| 8. Nursing Research | 11 | **97** | 4 | 0 | 2 |
| 9. Health informatics | 7 | **64** | 12 | 1 | 5 |
| 10. Actors | 6 | **76** | 10 | 5 | 7 |
| TOTAL | | **831** | | | |

Education) enabled the Kuopio University Library to test the Hoidokki thesaurus for indexing in autumn 2004. The Finnish first version of the Hoidokki was used. Nursing science has been represented in Kuopio University since 1979. The library material of nursing science has so far been indexed using the Finnish General Thesaurus (YSA) and the Medical Subject Headings vocabulary (MeSH). The limitations of these vocabularies for the indexing of the material of nursing science have been under discussion for several years.

In the validating of the Hoidokki, 170 Finnish doctoral dissertations of nursing science and 20 Finnish doctoral dissertations of health policy and management were indexed for the Kuopio University Library Database Kuopus. For each dissertation, from 0 to12 terms of the Hoidokki was used. The aim of the validating was to test the functionality of the Hoidokki, when indexing material of nursing science. At the same time the vocabulary and its structure was examined and corrections were suggested.

**Indexing was done with three Thesauruses**

The Hoidokki was used primarily, and FinMeSH (the Finnish translation of MeSH) secondarily in the test indexing. If these were not enough, the Finnish General Thesaurus (YSA) was used. The aim was to use as specific terms as possible. The concatenation was not used. A specific MARC field in the Kuopus Database for the terms of the Hoidokki was provided. This field is searchable through the builder search (see https://kuopus.linneanet.fi/). To that field were added also the FinMeSH terms.

Less than 10 dissertations were indexed only by Hoidokki terminology. Altogether for each dissertation there were more Hoidokki terms used than those of the FinMeSH. Yet, FinMeSH complemented Hoidokki strongly. For example in those dissertations that were about diseases, such as breast cancer, coronary artery disease etc., FinMeSH was very useful. The YSA complemented both Hoidokki and FinMeSH because these vocabularies do not cover widely such common terms as experiences, expectations, opinions or ideas.

If Hoidokki is to be used as the only vocabulary when indexing nursing science literature, YSA and FinMeSH should be browsed through carefully as these vocabularies have lots of appropriate and useful terms to be added to the Hoidokki. The current Hoidokki is not extensive enough to be used as the only vocabulary in indexing nursing science material. But, as Hoidokki includes lots of specific terms for nursing science, it works well as a supplementary thesaurus.

Many suggestions for improvements were documented during the validating phase, especially regarding, among others, the instructions and structure of the vocabulary. For example, it was felt that the Association and the hierarchic relationships of the terms were not sufficiently brought out. It was also thought that it would be much more useful if the thesaurus would be on the Internet - as it is at the present. The validating was rewarding and necessary for the development of the vocabulary. As development continues, there will be more suggestions for the improvement of the Hoidokki.

**Further development of the Hoidokki**

After the validating period, the changes that were presented were implemented in Hoidokki. The thesaurus has also been edited and updated since its beginning by using user-feedback, as well as taking into consideration national and international developments in nursing science. We also collect user-feedback via internet user-interface of the Hoidokki at present. Hoidokki has an Editorial Board that was appointed by the Foundation for Nurses' Education, which analyses the feedback and term propositions, in order to update and edit the thesaurus.

FinMeSH terms are also widely used in various electronic databases on medical websites. To widen the scope of the FinMeSH, a meta-thesaurus was created adding various cultural vocabularies of different areas in health care in

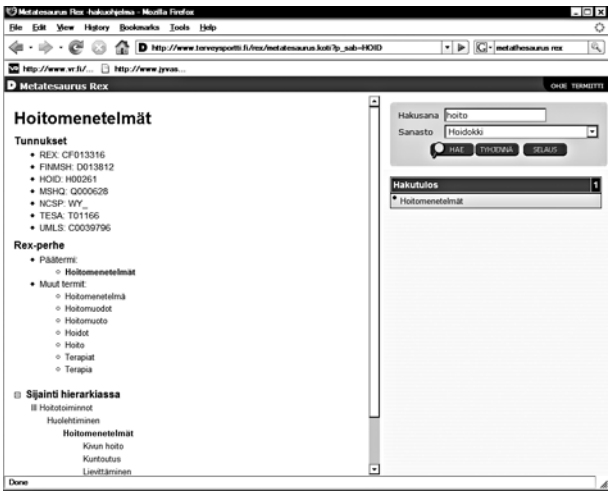


**Fig. 1.** *The user interface of the Hoidokki*

Finland. The Hoidokki is also included in the Metathesaurus Rex (*Figure 1*). Rex has been published by the leading Finnish medical publisher Duodecim. The aim here has been the integration of the Finnish tools of knowledge organization that are available for the health professionals, as well as to provide as easy an access as possible for potential users: both knowledge-seekers and information specialists. One of the evolving solutions is "the Health gate" portal (Terveysportti in Finnish) where online searches from many databases are possible for health professionals. The search strategy is almost equal to the PubMed-database.

We also have had several seminars in order to market the Hoidokki to as wide a public as possible. The main target has been nursing professionals, both educators and those who are practising, as well as students. The need for evidence-based documentation for nursing science has been one excellent source of motivation for both professionals and academics in making better metadata for the documents that are published within nursing in Finland.

There has been feedback that some of the areas covered in the Hoidokki have also been useful in medical indexing. For example, in nursing science there is quite a lot of discussion on the ethical and patience's experience based aspects of the health care that can lead to new topics and points of views being added to the discussion. Because some of these issues are based on the experiences and interpretations of individuals, it is important that we have controlled vocabularies to help provide access points for our library and database users.

In our library we are at present using the Hoidokki on a daily basis. Our experiences are that it is an excellent addition to the more general and medical based thesauruses that are used in our library. We are hoping that more and more libraries in Finland will start using it in order to get more feedback to improve the Hoidokki. It would also be very interesting to index all the Finnish nursing documents, especially the older ones, in order to help our patrons to find out the existence of these.

**References**

1. Saranto K, Tallberg M. Enhancing evidence-based practice – a controlled vocabulary for nursing practice and research. Int J Med Inf. 2003;70:249–53.
2. Pekkala E, Saranto K, Ensio A, Tallberg M, Junttila K. Searching for research evidence with a controlled nursing vocabulary. In ICN conference 2007. Nurses at the forefront: dealing with the unexpected, Yokohama, Japan, 27 May-1 June, 2007.
3. Hoidokki. Internet database [Internet]. 2008 [cited 21st January 2008]. Available from: http://www.shks.fi/hoidokki.

# Semantic Web applications in biology and medicine*

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**Abstract**
*The paper aims at providing a brief presentation of the Semantic Web applications existing in the fields of biology and medicine. It starts from the premise that in the context of information proliferation, new technologies are necessary to optimize existing controlled vocabularies and to improve information management in the sense of making it more accessible for computer interpretation.*

*Key words:* information science; controlled vocabulary; information theory; biological sciences; medicine.

## Introduction

Terminologies, thesauri and classifications are the standard tools so much used and cherished by librarians to organize knowledge. However, the development of Web technology is causing increasing unease regarding their effectiveness in the retrieval of information from a complexity of sources and formats. Their features are being explored in ways meant to make them yield to conceptual formalizations, to make them usable more readily by machines: automatic indexing, merging of thesauri, defining relations between terms with the same scheme or across different schemes which are already in place. Ways to extend the searches by controlled vocabulary terms to search engines are also being explored, along with natural language processing techniques and data mining. Everything to make information available more rapidly, more inescapable to our control, more accurate, more targeted, more... more....

And information will continue to grow in quantity, and so will the pressure to harness it. How well adapted are technologies for this process? Not too well, from the point of view of automation and formalization. Namely, the major obstacle is that, at present, the *meaning* of the Web content *is not machine accessible* (1), in the sense that computers cannot *interpret* words, sentences and the relationships between them. For instance, the word *nail*, which can mean two

**This article is based on a previous paper, namely "An introduction to the Semantic Web for health sciences librarians", published in the J Med Libr Assoc. 2006;94(2):198-205.*
*http://www.pubmedcentral.nih.gov/articlerender.fcgi?tool=pubmed&pubmedid=16636713 . It is an update of the section on Semantic Web applications.*

different things, poses no problem to us, especially if we have the context, but a machine will not know how to interpret it.

One of the most promising new technologies that addresses this problem is the Semantic Web (SW), whose vision was first outlined by Tim Berners-Lee *et al.* in a milestone article (2). The main goal of the Semantic Web is to add *logic* to the current Web, i.e. express the meaning of data, the properties of objects and the complex relationships existing between them by a series of formal rules, which would make information accessible to machines. Machine accessibility should be understood as representing information in such a way that it is possible to make queries based on the meaning (i.e. semantics) of the data, independent of the form in which the information is presented.

It is not the purpose of this paper to present the technology underlying the Semantic Web. For those who would like to find out more about it, please refer to the article mentioned in the footnote. However, the key concept that forms the core of any SW project should be mentioned, namely *ontology*. There are a number of definitions given in relation to its use in computer science (3, 4, 5). To keep things as simple as possible, suffice to say that an ontology is the attempt to formulate an exhaustive and rigorous conceptual schema (i.e. a map of concepts and their relationships) within a given domain. It may be based on one or more existing thesauruses and/or taxonomies, or its terms and relations may be defined as the ontology is constructed. Two well known examples of ontology, are WordNet (http://wordnet.princeton.edu/) and OpenCyc (http://www.opencyc.org/).

The field of medicine and biology has attracted from the beginning the attention of SW developers for several reasons: it is a relatively homogeneous field from a conceptual viewpoint; its domain with its sub-domains yield themselves relatively well to the development of taxonomies, and it already benefits from well consolidated thesauri and terminologies (MeSH, SNOMED, ICD).

**Semantic Web applications in the field of medicine and biology**

The **UMLS (Unified Medical Language System)**, developed by the National Library of Medicine, is the closest to the concept of *ontology* especially due to the Semantic Network component, with its 135 *semantic types* (http://www.nlm.nih.gov/research/umls/META3_current_semantic_types.html), which are high-level categories covering more than one million concepts from the over one hundred vocabularies and terminologies. Besides the directly hierarchical is a relationship, there are 53 kinds of defined relationships which are used to represent over 6,700 hierarchical and associative relations among the semantic types. The UMLS is continually developing and research work is underway regarding its coverage, content, organization and compatibility with other ontologies.

As an ontology, the UMLS plays an important role in the development of other products and projects, among which it is important to mention *The Semantic Knowledge Representation (SKR) P*roject, belonging to LHNCBC (The Lister Hill National Center for Biological Communications). This aims "to develop programs to provide usable semantic representation of biomedical free text by building on resources currently available at the library", URL: http://skr.nlm.nih.gov/.

**GALEN (Generalised Architecture for Languages, Encyclopaedias and Nomenclatures in medicine)** (http://www.opengalen.org) is a project of the European Union aimed at providing terminology resources for clinical

systems. It is not based on a previously existing thesaurus or taxonomy, therefore formalization was possible from the beginning and the terms are coordinated at the point of their inclusion in the system. As stated on the website, *GALEN is trying to make it easier to build useful and usable clinical applications, to support clinicians in their day-to-day work. We have identified one of the factors that makes it hard to build and integrate such applications – the need for representation of the medical concepts that such applications have to store and manipulate. The GALEN Programme is developing a* ***clinical terminology*** *– the GALEN Common Reference Model – in which we can represent all and only sensible medical concepts. The medical concepts represented using that scheme must be accessible and manipulable by computers, as well as being accessible to clinicians. The representation scheme that we are using to build the GALEN Common Reference Model is known as GRAIL – the GALEN Representation And Integration Language. The GALEN Common Reference Model is delivered and used via a software device called a GALEN Terminology Server; we have found that, to be usable, clinical terminologies must now be software rather than data-sets.* The languages supported are English, French, Italian, Dutch, German, Finnish and Swedish.

**LinkBase** (http://www.landcglobal.com/pages/linkbase.php) claims to be *the world's largest formal medical ontology i.e. a conceptual computer-understandable representation of medicine.* It is currently developed and maintained by the modeling team of Language and Computing NV as a commercial product, after extensive research funded by the European Community. LinkBase contains over one million language-independent medical and general-purpose concepts that can be expressed both by standard terminologies and by natural language expressions. The medical concepts are language independent and are linked to about 3 million terms in various languages (English, French, Spanish, etc.). The concepts are linked together into a semantic network using approximately 450 different link types for expressing formal relationships (6). First DataBank, Healthgate, and WebMD are listed among their clients.

**The HealthCyberMap** (http://healthcybermap.semanticweb.org/) "aims at mapping selected parts of health information resources in cyberspace in novel semantic ways to improve their retrieval and navigation.(...) It addresses many of the current knowledge needs of Internet health information providers, healthcare professionals and the general public and patients, by helping them better understand, plan and manage the health information cyberspace. Problem-specific knowledge (the right, contextually relevant knowledge) linked to real patient data is the key to informed clinical decision making and better healthcare outcomes." (7). It uses the Dublin Core metadata, including UMLS terms in the "subject" element.

**NCI (National Cancer Institute) Thesaurus and Ontology** is a public domain description logic-based terminology produced by the NCI and distributed as a component of the NCI Center for Bioinformatics caCORE distribution. It is based on the UMLS Metathesaurus, a public version being available at http://ncimeta.nci.nih.gov.

**The Gene Ontology (GO)** (http://www.geneontology.org/), a project of the Gene Ontology Consortium, originated from within the biological community. It claims to be the only ontology actually being used as "a *de facto* standard for describing functional aspects of biological entities in all types of organisms. It covers molecular function, biological process, and cellular component. Its terminology includes over 20,000 terms (8).

**Discussion and conclusion**

The Semantic Web projects briefly presented here were not born yesterday - all of them are more than 5 years old! Does the future of information retrieval belong to such projects? It is extremely difficult to tell, because much too often, the actual development of technologies has defied all predictions and even seemingly consolidated projects. We all remember that in 1994 Bill Gates saw "little commercial potential for the Internet for at least ten years". There will always be enthusiasts and sceptics regarding certain developments and technologies. There is already talk about Web 3.0 (9), which, among other things, also includes Semantic Web technology.

As information professionals we can only keep an open eye on everything that concerns the development of technologies that might help us manage the information efficiently, to the highest expectations of the community we serve.

**References**

1. Antoniou G and Van Harmelen F. A Semantic Web Primer., MIT Press, April 2004. Available from: http://www.ics.forth.gr/isl/swprimer/ [last visited 24 Jan 2008]
2. Berners-Lee T, Hendler J, Lassila O. The Semantic Web. A new form of web content that is meaningful to computers will unleash a revolution of new possibilities. Scientific American [serial online] 2001 May 17;284(5) Available from: http://www.sciam.com/article.cfm?articleID=00048144-10D2-1C70-84A9809EC588EF21 [last visited 24 Jan 2008]
3. Sowa JF. Knowledge representation: logical, philsophical and computational foundations. Pontiac Grove, CA: Brooks Cole Publishing Co, 2000. Quoted in: Jacob EK. Ontologies and the Semantic Web. Bulletin of the American Society for Information Science and Technology 2003 April/May;29(4):19-22.
4. Gruber TR. A translation approach to portable ontology specifications. Knowledge Systems Laboratory; Technical Report KSL 92-71. September 1992; revised April 1993. Available from: http://tomgruber.org/writing/ontolingua-kaj-1993.pdf. [last visited 22 Jan 2008]
5. Web-based knowledge representation. Course slides. Free University of Amsterdam, 2002.
6. Van Buggenhout C, Ceusters W. A novel view on information content of concepts in a large ontology and a view on the structure and the quality of the ontology. Int J Med Inform 2005 Mar;74(2-4):125-32
7. Boulos MN. HealthCyberMap: mapping the health cyberspace using Hypermedia GIS and clinical codes. 2002. Available from: http://healthcybermap.semanticweb.org/proposal.htm [last visited 21 Jan 2008]
8. Bada M et al. A short study of the success of the Gene Ontology. Journal of Web Semantics 2004;1(2) Available from: http://www.websemanticsjournal.org/papers/20041001/document.pdf [last visited 24 Jan 2008]
9. Giustini D. Web 3.0 and medicine. BMJ 2007;335:1273-1274 Available from: http://www.bmj.com/cgi/content/full/335/7633/1273 [last visited 24 Jan 2008]

# Take a Look!

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The aim of this section is to draw your attention to some items that may be of interest but which you may otherwise miss because they appear in non-medical librarian journals. (For lists and TOC's alerts from medical librarian journals, see: http://www.chu-rouen.fr/documed/eahil67.html)

**Free full text**

1. Morgan PS. **The availability of MeSH in vendor-supplied cataloguing records, as seen through the catalogue of a Canadian Academic Health Library.** The Canadian Journal of Library and Information Practice and Research. 2007;2(2).
http://journal.lib.uoguelph.ca/index.php/perj/article/view/335/580

2. Manuel S, Oppenheim C. **Googlepository and the University Library.** Ariadne. 2007;53
http://www.ariadne.ac.uk/issue53/manuel-oppenheim/

3. Dennis AD. **The impact of the open access movement on medical based scholarly publishing in Nigeria.** First Monday. 2007 Oct 1;12(10).
http://www.uic.edu/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/1957/1834

4. Mills MD, Esterhay RJ, Thornewill J. **Using a tetradic network technique and a transaction cost economic analysis to illustrate an economic model for an open access medical journal.** First Monday. 2007 Oct 1;12(10).
http://www.uic.edu/htbin/cgiwrap/bin/ojs/index.php/fm/article/view/1964/1840

5. Trivedi M. **Knowledge management in health ccience libraries.** Electronic Journal of Academic and Special Librarianship. 2007;8(2).
http://southernlibrarianship.icaap.org/content/v08n02/trivedi_m01.html

6. Walker TB et al. **Teaching and supporting EndNote at the University of Tennessee: designing online alternatives to high demand classes.** Electronic Journal of Academic and Special Librarianship. 2007;8(2).
http://southernlibrarianship.icaap.org/content/v08n02/walker_t01.html

7. Earl M. **Finding quality drug information on the internet.** Tennessee Libraries. 2007;57(2).
http://www.tnla.org/displaycommon.cfm?an=1&subarticlenbr=147

## Abstracts


1. Viberta N, Rouetb JF, Rosb C, Ramondb M, Deshoullieresc B. **The use of online electronic information resources in scientific research: the case of neuroscience.** Library & Information Science Research. 2007;29(4):508-532.
   http://dx.doi.org/10.1016/j.lisr.2007.05.001

2. Ismond KP, Shiri A. **The medical digital library landscape.** Online Information Review. 2007;31(6):744-758.
   http://www.emeraldinsight.com/Insight/viewContentItem.do?contentType=Article&contentId=1640577

3. Mayr P, Walter AK. **An exploratory study of Google Scholar.** Online Information Review. 2007;31(6):814-830.
   http://www.emeraldinsight.com/Insight/viewContentItem.do?contentType=Article&contentId=1640581

4. De Groote SL, Appelt K. **The accuracy and thoroughness of a federated search engine in the health sciences.** Internet Reference Services Quarterly. 2007;12.
   http://haworthpress-kristina.notlong.com

5. Tang MH. **Browsing and searching in a faceted information space: a naturalistic study of PubMed users' interaction with a display tool.** Journal of the American Society for Information Science and Technology. 58(13):1998–2006.
   http://www3.interscience.wiley.com/cgi-bin/abstract/116317737/ABSTRACT

6. Bravo BR, Díez MLA. **E-science and open access repositories in Spain.** OCLC Systems & Services. 2007;23(4):363-371.
   http://www.emeraldinsight.com/10.1108/10650750710831501

7. Steyn C, de Wee JA. **The naked librarian: health librarians in the modern era.** Library Review. 2007;56(9):797-802.
   http://www.emeraldinsight.com/10.1108/00242530710831248


An HTML version of this page is available at the URL:
http://www.chu-rouen.fr/documed/jeahil_take_a_look_december_2007.html

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## New jobs for librarians

1. *Librarians as information sleuths*

According to US NEWS, the librarian is one of the most underrated careers (1)**:** No longer *mousy bookworms*, they imagine librarians to be *high-tech information sleuths* in the *oceans of information* available. After summarizing the things librarians were doing (or even "performing"), they conclude: "On top of it all, librarians' *work hours are reasonable*." In contrast, most of our clients seem to have overrated careers: the clinical psychologist, the medical scientist, and … yes … the physician (2)**.** Their appeal is enormous and very rewarding, and prestige and salary is high, … but … in reality *fewer and fewer patients see their physicians as godlike*. The newspaper lists other liabilities: the long lasting and expensive education and training; the 90-plus hours a week; the stress of managing the office, of caring for noncompliant patients, of giving bad news, and so on. To conclude: my mother was wrong! Being a librarian by herself, she strongly advised me not to get into this boring and dull job. But in the light of these career evaluations, maybe my decision was not that bad!

2. *Librarians as copyright managers*

Nowadays, exciting as well as demanding tasks for the librarian "spring up like mushrooms after rain" (as we say in Germany). According to Lesley Ellen Harris (3), e*ducators, librarians, archivists and other information professionals are involved in daily activities which must be undertaken within the confines of copyright law. With the Internet, often all of these non-lawyers must understand international copyright treaties and foreign copyright laws as well as the copyright laws in their own countries - at least on a practical level. There are many librarians and content owners who continually are negotiating permissions and licenses to copyright-protected works and who have much more practical experience than any attorney. These are often our colleagues with whom we can gain much insight.*

Because of the almost incomprehensibly legal jargon, facilitators are needed. Librarian could do the job. They work at the very interface between authors and readers, where the copyright law is enforced. With their common sense they could explain the law to lay persons and lobby for comprehensible contracts.

## New kids on the blog!

*Marcus' World*

Marcus Banks is a member of the International Cooperation Section (ICS) of the MLA, so I got to know him through his ICS activities. He's also involved with the MLA's *Task Force on Global Initiatives* as well as book donating programs. Only recently, however, I learnt that Marcus writes a

smart Weblog too. *Marcus' World* (4) reports from every hidden corner of medical librarianship from ethical issues of living in a modern world to the advantages of dating by *Facebook* rather than by phone or email. His recent *Survey on Health Sciences Librarian Blog Readers* (5) caught my attention: Although up till now there is only some raw data available, the results are still remarkable. (6)

- medical librarians read on average 4-6 professional blogs;
- 70% attempt to incorporate what they read about in librarian blogs in their work;
- 73% follow them by subscribing via RSS;
- 76% read to become aware about new technologies and tools;
- 89% subscribe to listservs as likely or less likely compared to one year ago;
- 95% read blogs as likely or more likely as compared to one year ago.

Be sure to follow Marcus' blog for updates on that survey.

*Bibliotecari Documentalisti Sanità*
A Weblog called *BDS - Bibliotecari Documentalisti Sanità SSN* (7) has been initiated by Yvonne Perathoner from Bolzano as a forum for medical librarians in Italy. The blog is Italian-only, so for me it's quite a challenge to follow it. At the moment, five librarians work on this collaborative project. Anyone who wants to join may ask to be registered by Yvonne.

*Shelved in the W's*
*Shelved in the W's: Working notes of a hospital librarian* (7) is a blog by a hospital librarian *Mark Rabnett*. Mark works at St. Boniface General Hospital, Health Sciences Libraries, University of Manitoba, Winnipeg, Canada. On *Shelved in the W's* he records his professional "hits and misses" with lovely humour. He likes classical music and German authors too – well, that makes him my favourite blogger!

**Premier League, Hare Krishna, and Cochrane Library**
What is the relation between the *Hare Krishna* community in Kazakhstan, the Premier League referee *Mark Clattenburg* and the evidence-based database *Cochrane Library*? Right! They're all in need of support. And where do they look for support? Yes – at epetitions.net (8). One, two, three – get a petition in a minute or less, for or against each and anything and collect furiously ~~supporters~~ signatures. The Cochrane Library (1) has 4571 votes (including mine), the Hare Krishna (10) 1005 votes and "Ban referee Mark Clattenburg" (11) (my favourite) 2532 votes. What the hell did Clattenburg do? *During the derby encounter between Everton and Liverpool, Mr. Clattenburg made unprofessional blunders that changed the outcome of the game dramatically. He gave a penalty for a foul committed outside the box and initially going to give a yellow card, he gave a red card to the Everton defender after a Liverpool player told him something* … and even worse...

**Fig. 1.** *The proposed National Library, Bucharest.*

In addition to the Premier League, the National Library in Bucharest (12) wants to be rescued from a conversion into a *quasi* shopping mall glass box (13) (*Figure 1*), but that's not our main problem at the moment, because… "Cochrane for the EU" is definitely a good

thing and number 1 in epetitions.net too. I am as much convinced of that goal as the two people who want to "Ban Whaling Forever"(14)…

**Wikis for health librarians**

Eugene Barsky and Dean Giustini wrote an introduction to wikis as part 5 of the *Journal of the Canadian Health Libraries Association* (JCHLA) series about Web 2.0 technologies in health. Wikis are an especially valuable Web 2.0 tool. Everybody who knows Wikipedia knows also how a wiki looks like. Whereas a blog could be thought as a mile-long paper roll, a wiki is more like a stack of file cards. Whereas blogs are structured mainly by date, wikis are structured by topic. Whether you choose a wiki or a blog for a certain purpose depends on the answer to the question: Who should contribute? Wiki entries can easily be edited by anyone, whereas blog entries only by the author himself.

Would you like to experiment? I entered some information about EAHIL into the Wikipedia article "Medical Library" (15). So please put this *JEAHIL* issue aside right now and point your browser to: **en.wikipedia.org/wiki/Medical_library**. Scroll down to **Associations** and click on [edit] on the right. Now delete "since 1987" behind the EAHIL sentence (it's safe, I just added it today) (16). Then click on [Save page] – and no Wikipedia reader will know that the EAHIL is almost 21. Do you feel the power in your hands? Can you understand why hundreds of thousands people try hard to and voluntary improve Wikipedia? Believe me, the first time I added something to Wikipedia, I was both amazed and frightened about the ease… and the obvious consequences if everybody does it.

Wikis do not stop with Wikipedia. There are many wikis around, including medical as well as medical librarian ones. Just to name a few:

- Dr. Wiki (17) is an online repository of medical information with approved physician-only authors;
- Ganfyd (18) is a collaborative medical reference by medical experts and invited non-medical experts;
- PubDrug (19) is an open-access drug database;
- WiserWiki (20), sponsored by Elsevier, is a book (Textbook of Primary Care Medicine, 3rd Edition 2000, by John Noble), which will be continuously updated by invited physicians;
- UBC Health Library wiki (21) is an knowledge database for health librarians run by Vancouver University of British Columbia, School of Library, Archival and Information Studies;
- LIS-Wiki (22) is dedicated to Library and Information Science. For example, a list of Weblogs for medical librarianship (23) is managed here;
- Be sure to take a look at David Rothman's "More on wikis for health librarians" (24) or the interdisciplinary directory Wiki-Index (25) (about 3000 wikis, incl. a Harry Potter wiki) (26).

At the end of their paper, Barsky and Giustini suggested, that in the future, expensive sources such as UpToDate (27) will be replaced by open-access wikis. Consider the requirements, assuming this wiki will not harm people. If you would like to establish your own wiki or play around with one, there are two sites worth mentioning. WikiMatrix (28) helps you to choose the appropriate wiki host or software. Just use the Wiki Choice Wizard, compare Wikis or lurk at the discussion forum. Wiki site (29) allows you to start a wiki on your own within minutes – go ahead!

**References**

1. http://www.usnews.com/articles/business/best-careers/2007/12/19/librarian-executive-summary.html
2. http://www.usnews.com/articles/business/best-careers/2007/12/19/overrated-career-physician.htm
3. http://www.library.yale.edu/~llicense/ListArchives/0801/msg00030.html
4. http://mbanks.typepad.com/my_weblog/
5. http://mbanks.typepad.com/my_weblog/2008/01/survey-of-healt.html
6. http://mbanks.typepad.com/my_weblog/2008/01/blog-readers-su.html
7. http://shelved.blogspot.com/
8. http://epetitions.net/
9. http://cochrane.epetitions.net/
10. http://harekrishna.epetitions.net/
11. http://clattenburg.epetitions.net/
12. http://www.bibnat.ro/
13. http://salvati.epetitions.net/
14. http://banwhaling.epetitions.net
15. http://en.wikipedia.org/wiki/Medical_library
16. http://en.wikipedia.org/w/index.php?title=Medical_library&action=history
17. http://www.askdrwiki.com
18. http://www.ganfyd.org
19. http://www.pubdrug.org
20. http://www.wiserwiki.com/
21. http://hlwiki.slais.ubc.ca
22. http://liswiki.org/
23. http://liswiki.org/wiki/Weblogs_-_Medical_Librarianship
24. http://davidrothman.net/2008/01/25/introducing-web-20-wikis-for-health-librarians/
25. http://wikiindex.org/
26. http://www.harrypotterwiki.de/
27. http://www.uptodate.com
28. http://www.wikimatrix.org/
29. http://www.wiki-site.com

# A new special interest group for EAHIL

**Bruce Madge**
**Octavia-Luciana Porumbeanu**

Health Informatics is increasingly important to our profession and this was underlined at the EAHIL Council workshop in Krakow where topics such as data mining, the electronic patient record and taxonomies were discussed. A recommendation was made at the Council workshop that a new Special Interest Group on health informatics be set up to cater for these and other areas of interest.

Due to our interest in the subject both my colleague Octavia and I have decided to take the lead in this subject and will call an inaugural meeting in Helsinki to gauge interest in this new group. Octavia has a doctorate in Knowledge Management and I have a postgraduate qualification in health informatics and will be starting my doctorate in the topic next year.

We have already started a discussion group – EAHIL-HI and this message will be posted in the next few weeks. If you are interested in this area and being involved with the new group please contact either of us at bruce.madge@uprightmri.co.uk or octavialuciana@yahoo.com to register your interest.

# Letter from the President

**Suzanne Bakker**
Centrale Kanker Bibliotheek, Amsterdam
Contact: s.bakker@nki.nl

With the Krakow workshop fresh in our memory we are heading for the Helsinki conference in June this year. The conference and course programme will be sure to meet our professional expectations and the social events will provide the infrastructure for renewing relations and making new friends. Before we meet in Helsinki there will be other important EAHIL events: the elections for new members of the Executive Board and for President. The Nomination Committee succeeded in finding candidates, consisting of present Board members who stand for re-election and others new to the Board. The voting will be electronically, as we did for the last Council elections. All EAHIL members will receive further details and instructions about the procedure by e-mail. Today correct and valid e-mail addresses are vital for communication within the Association.

The *old* EAHIL-L discussion list will be cleaned and the e-mail addresses from the web database will be uploaded to create the subscribers list. It is easy to update your personal details, so please do check and complete these online at http://www.eahil.net . Find a nice digital picture of yourself and upload it to be printed on your membership card. **Make sure you have a print of your EAHIL 2008 membership card with you when attending the General Assembly in Helsinki.** Voting cards will be distributed only to those who can give proof of their EAHIL membership.

Presently the EAHIL Board will meet in Maarssen for the winter business meeting. Any results of our discussions will be published in the May issue of the *JEAHIL* and be open for further discussion and comments in the Council meeting and General Assembly in June in Helsinki. As you will see from the information about the elections, I am willing to serve a second term as President. My plans for the coming years consist of strengthening the framework of continuing education courses and setting up the professional register. To strengthen EAHIL as an organization I would welcome and support the creation of more special interest groups: either focused on a common subject within the medical information field (like the veterinarians, the public health group and the pharmaceutical information) but also on new and interdisciplinary fields (like informatics) and specialized task- or service-oriented groups (e.g. clinical librarianship, management of translated MeSH). From colleagues in the forefront of developments we can learn and improve our information services. It is important that we meet in person every year and share our knowledge and experiences. Unfortunately not all colleagues will be able to attend EAHIL meetings. Costs of travelling and being away from the library are barriers not easy to overcome. However, involvement in European developments is possible when matters of interest are brought back to national meetings by conference participants. *Vice versa*, it is important that Council members are invited to bring issues to the agenda of EAHIL. The format of last year's Council meeting worked well in that respect with small group discussions and plenary summaries as the outcome to be taken into account by further plans.

# News from EAHIL

# Public Health Information Special Interest Group. Helsinki Calling!

**Paivi Pekkarinen**[1]

**Sue Thomas**[2]

1) Group Co-ordinator
Contact: Paivi.pekkarinen@helsinki.fi
2) Group Secretary
Contact: Susan.Thomas@wales.gsi.gov.uk

It is really good news to let everyone know that the members of the Public Health Special Interest Group were very active in answering the call for papers and posters for the next EAHIL Conference in Helsinki in June 2008.

The International Programme Committee had intensive working sessions in December 2007, and following this they were able to include all 20 of the public health related abstracts into the conference programme.

The abstracts deal with a range of topics in Public Health and will be delivered in two sessions under Health Information Policy and Public Health. The themes focus on:

- Evidence-based practice;
- Equitable access;
- Information policy in public health;
- Engaging citizens in their health;
- Working in partnership with others.

These themes relate closely to our group's aims to:

- promote equitable access to public health information for all communities;
- facilitate the sharing of experiences and best practice in managing public health information.

Both the sessions will be part of the parallel session programme and open to all delegates at the Helsinki conference.

We will also have ten interesting posters that will be looking at public health information issues from different perspectives, so therefore we shall also have a public health poster session.

Our business meeting is on Wednesday 25th June with the paper and poster sessions on Thursday 26th June.

We are also planning an informal meeting on Thursday evening.

So plenty to look forward to in mid summer in Helsinki. We hope that as many as possible join us for interesting and fruitful discussions.

# News from the Pharmaceutical Information Group

**Michelle Wake**[1]

**Giovanna Miranda**[2]

**Neroli Harris**[3]

1) PHING Co-Chair
Contact: michelle.wake@pharmacy.ac.uk
2) PHING Co-Chair
Contact: giovanna.miranda@sanofi-aventis.com
3) PHING Secretary
Contact: neroli.harris@pharmacy.ac.uk

Krakow now seems like a distant, but happy memory but it will not be long before Helsinki is upon us. Finland has a long history in the pharmaceutical sciences with the first Finnish community pharmacies being created in 1689. The University of Helsinki has a Faculty of Pharmacy and the University's museum contains a fascinating pharmacy interior dating back to the mid-19th century. There will be an opportunity for members of PHING and interested non-members to meet up at the 11th EAHIL Conference. Following a PHING tradition we hope to be able to provide additional refreshments to oil the business proceedings. It will also be an opportunity to welcome our new Secretary, Neroli Harris. Information on the event will be made available via the EAHIL email discussion lists and our web pages at http://www.eahil.net/pharmaceutical_information_group.htm.

By the time you read this we may very well have decided on a new name for our group – something that emphasises that we are open to all those with an interest in drug information, not just those who work for a pharmaceutical company or school of pharmacy. Indeed, the former PHING Chair, Linda Lisgarten, reported "drug treatment is in fact by far the most frequent medical intervention". So, I expect most of us have an interest in this area.

Please keep your suggestions / alterations for the PHING web pages coming to Neroli – they have the potential to be a key resource. In addition we are also after news and views to add to this regular column, so do get in touch.

Finally, we must send our congratulations to Pip Divall and Sarah Sutton who were awarded "Best EAHIL First Timer Oral Presentation" with their paper "Pharm-Assist: Using Personal Digital Assistants (PDAs) to Assist in Pharmacy Decisions" at the Krakow Workshop. The paper was published in the previous edition of this journal and is also available at http://www.bm.cm-uj.krakow.pl/eahil/proceedingsOral.php.

# News from MLA

# Medical Library Association report for EAHIL

**Bruce Madge**
MLA representative to EAHIL
London Upright MRI Center, London, UK
Contact: Bruce.madge@uprightmri.co.uk

A very Happy New Year to every EAHIL member from MLA. Now that 2008 is under way, the Annual MLA meeting in Chicago is the next big event in many people's calendars. Registration forms and hotel bookings should be available this month on the MLANET website - http://www.mlanet.org/am/am2008/index.html I would urge everyone to consider going to an MLA conference at least once in his/her lifetime.

Other news from the Medical Library Association includes the following:

**Benchmarking Survey**
The 3rd MLA Benchmarking Survey is under way and open to non-members and those from outside the US. The Canadian Health Libraries Association is also taking part this time around. More than 180 librarians have already started their MLA benchmarking survey and more than 90 have completed it. The BNEB is *extending the survey deadline through January 31, 2008.* Of interest to librarians outside of the States is the success stories that are available through the website – see: http://www.mlanet.org/pdf/benchmark/success_stories.pdf

**Membership survey**
The MLA Membership Committee and headquarters staff are seeking opinions on MLA programs, services, and future directions! It is hoped that responses will help improve services and determine future priorities for the Association. The survey will remain live through January 31, 2008 and the results will appear on MLANET in future. To date, over 500 people have responded.

**Social Networking**
The Task Force on Social Networking Software (SNSTF) blog continues to grow. You can read and comment on "A Slap in the Facebook " posted by SNSTF Chair Bart Ragon: "Faced with an online user protest, Facebook has changed the controversial service....Now users have to opt *in* instead of opting *out*. This brings up some challenging questions that I think speaks to the trepidation that many librarians feel about public social networking sites."

**MLA News**
The November/December 2007 issue of *MLA News* is now on MLANET. The latest issue contains: highlights of the September board meeting; MLA 2008/09 election coverage; MLA 08 meeting preview; and Internet resources on nursing theory. It is also a good place to look for vacancies which are posted on the 10th and 25th of each month.

***Journal of the Medical Library Association***
The archive of the October 2007 issue of the *Journal of the Medical Library Association (JMLA)* is now live on PubMed Central. The issue contains papers on the effect of librarian support for morning report, a review of evidence-based practice in nursing and the allied health professions, information prescriptions, and more. Finally, please check out the Librarians Without Borders (SM) website to get an update of e-library training coordinator Lenny Rhine's activities at http://www.mlanet.org/resources/global/.

# Publications and new products

**Giovanna F. Miranda**

Scientific Information & Library Services
Sanofi-Aventis, Milan, Italy
giovanna.miranda@sanofi-aventis.com

Dear Colleagues,

Some interesting papers on the web:

- an overview of the potential of the three dimensional virtual world, such as Second Life in medical and health education (Kamel Boulos, M.N. Health Information and Library Journal, 2007;24:233);
- an article on web 3 and medicine. The web 3.0 promises to be a better pathway and build better mechanisms for information retrieval (Giustini, D. BMJ 2007;335:1273);
- who are and what do the doctor bloggers want. The medical "blogosphere" has become an addictive pastime for many doctors (Coombes, R. BMJ 2007;335:644);
- a paper on the accuracy of the content of Wikipedia and other internet encyclopedias (Gorman, G.E. Online Information Review 2007;31:273).

**Giovanna F. Miranda**

## Journal issues

Since the *Journal* of August 2007, the following journal issue of the *Health Information and Libraries Journa*l has been received:

**Vol. 24 Issue 4**

**M. N. Kamel Boulos, L. Hetherington, S. Wheeler. Second Life: an overview of the potential of 3-D virtual worlds in medical and health education.** p. 233 -245.
This paper is a hybrid review-case study that introduces three-dimensional (3-D) virtual worlds and their educational potential to medical/health librarians and educators. It describes some medical and health education examples from Second Life, including Second Life Medical and Consumer Health Libraries (Healthinfo Island - funded by a grant from the US National Library of Medicine), and VNEC (Virtual Neurological Education Centre - developed at the University of Plymouth, UK).

**J. Hoppenbrouwer and C. W. Kanyengo. Current access to health information in Zambia: a survey of selected health institutions.** p. 246-256.
The objective of this study was to assess the current situation of access to information by health staff at selected central, provincial, district hospitals and health centers in Zambia.

**L. Falzon and K. J. Trudeau. Developing a database of behavioural medicine interventions**. p. 257-266.
The paper describes the development of the Cochrane Behavioral Medicine Field database of interventions and its contribution to the knowledge base of this field.

**M. Lapidus. Educating student pharmacists about herbal medicines: faculty–librarian collaboration.** p. 267-273.
This study determines the impact of the teaching collaboration between faculty and librarians in instructing pharmacy students on herbal medicines.

**I. D. K. Dimoliatis and S. Roff. Interprofessional/multiprofessional health professions education: designing an efficient search to scope the literature of this exploding field**. p. 274-282.
The objective of the study was to outline an efficient specific query to retrieve relevant citations on interprofessional/ multiprofessional health professions education literature.

**M. Q. Almerie, H. E. Matar, V.Jones, A. Kumar, J. Wright, E. Wlostowska, C. E. Adams. Searching the Polish Medical Bibliography (Polska Bibliografia Lekarska) for trials.** p. 283-286.
The systematical searches of the Polish Medical Bibliography Part II (1996–2006) CD-ROM (July 2006) using both English and Polish phrases for randomized trials.

## Books review

**Medical Librarian 2.0.** ***Use of Web 2.0 Technologies in Reference Services.*** Ed. M. Sandra Wood. The Haworth Information Press, Binghamton, N.Y. USA, 2007. $90, ISBN 978-0-7890-3605-6 hard cover; $ 60, ISBN 978-0-7890-3606-3 soft cover; p. 211. This book discusses current technologies and practical applications.

**Yearbook of the Institution of the European Union**. **Euroguide 2007** European Study Service, p. 704; Euro 210 per copy + postal charges. Detailed description of institution, body and agency of the European Union. The latest edition incorporates information for the two new Member States Bulgaria and Romania.

## Papers review

**Web 3.0 and medicine. Make way for the Semantic Web.**
Giustini D. BMJ 2007;335:1273

**Who are the doctor bloggers and what do they want?**
Coombes R. BMJ 2007;335:644

**A tale of information ethics and encyclopaedias; or is Wikipedia just another internet scam?**
Gorman GE. Online Information Review 2007;31:273

**A bibliometric overview of public health research in Europe.**
Clarke A. et al. European Journal of Public Health 2007;17(Suppl. 1):43

## News

**Open Access.** US investigators, funded by the National Institutes of Health, may be compelled to publish only in journals, which will make their research papers freely available within one year of publication.
Nature 2007; 450:148

**Working Group on the Future of Bibliographic control**. The final report of the Working Group on the Future of Bibliographic control is now available:
http://www.loc.gov/bibliographic-future/news/lcwg-ontherecord-jan08-final.pdf

JAMA and the BMJ Publishing Group announce the **Sixth International Congress on Peer Review and Biomedical Publication** which will be held in Vancouver, Canada, on September 10-12, 2009. There are many interesting topics including: open access and archiving, prepublication posting and release of information, evaluations of the quality of print and online information, the future of scientific publication.
http://jama.ama-assn.org/cgi/content/full/298/20/2420

## Information sources... Web based

**NORD's database**. National Organization for Rare Disorders. The Rare disease database contains reports on more 1,150 disease and more than 2,000 organizations and other sources of help. Abstracts of disease reports and information about patient organizations are available free on this web site.
http://www.rarediseases.org/search/rdbsearch.html

**The Dietary Supplements Labels Database** offers information about ingredients in more than two thousand selected brands of dietary supplements. It enables users to determine what ingredients are in specific brands and to compare ingredients in different brands. Information is also provided on the health benefits claimed by manufacturers.
http://dietarysupplements.nlm.nih.gov/dietary/

**MDG**. The MDG Monitor will monitor how nations are meeting the United Nations Millennium Development Goals. Among the millennium goals are to reduce child mortality, combat HIV/AIDS, malaria and other diseases and improve maternal health.
http://www.mdgmonitor.org/

**Scitopia** is a vertical search portal that searches the entire electronic libraries of the leading voices in major science and technology disciplines. The portal has more than three million documents, including peer-reviewed journal content and technical conference papers. Scitopia was created through the collaboration of 15 leading science and technology societies.
http://www.scitopia.org/

**Open Library.** The Open Library project is an open source project of the Internet Archive. The Internet Archive has been working to provide resources, such as databases, to the Open Library project. You can also read the full text of the out-of-copyright books.
http://www.openlibrary.org/

## News from publishers

**Swets.** Royal Swets & Zeitlinger has announced that its current group of shareholders has agreed to sell 100% of the shares in the company to the Dutch-based investment firm Gilde Buy Out Partners.
http://www.swets.com/web/show/id=46021/langid=42/contentid=182

**Nature Publishing Group** announces that is introducing a **Creative Commons licence** for original research articles publishing the primary sequence of an organism's genome for the first time in any of the Nature journals. The Creative Commons Attribution-Non-Commercial-Share Alike 3.0 Unported licence will enable researchers to freely share and adapt the work, provided the original is attributed and not used for commercial purposes, and that any resulting work is distributed under a similar licence. No publication fees will be applicable, and the articles will be available free of charge.
http://www.nature.com

**The Haworth Press, Inc**. announces the publication of the **Journal of Library Metadata**. Formerly the *Journal of Internet Cataloging*, this journal provides the latest information and research on the state of e-resources like folksonomies, social tagging and tag clouds, and more.
http://www.HaworthPress.com

# Forthcoming events

**6-9 February 2008, Las Vegas, Nevada, United States**
**Viva Librarians!**
**Northern California / Nevada Medical Library Group**
For further information: http://www.med.unr.edu/ncnmlg/

**20-21 February, 2008, Sevilla, Spain**
**Building connections to the future**
**2nd National Digital Libraries of Health Conference**
Further information: http://www.bibliotecavirtualsalud.eu/conference

**3-5 March, 2008, Barcelona, Spain**
**The DIA 20th Euromeeting**
**Drug Information Association**
For further information: http://www.diahome.org

**31 March 2008 -2 April 2008, Ramallah, Palestine**
**International Conference on Libraries from Human Rights Perspective**
For further information: http://www.rchrs.ps

**7-9 April 2008 Arlington, Virginia, United States**
**Computers in Libraries**
For further information: http://www.infotoday.com/cil2008

**21-22 April, 2008, Amsterdam, Netherlands**
**Copyright Symposium**
**Amsterdam World Book Capital 2008-2009**
For further information: http://www.amsterdamworldbookcapital.com/

**28-29 April, 2008, Boston, Ma, USA**
**Search engine meeting**
For further information: http://www.infonortics.com

**23-30 May, 2008, Halifax, Nova Scotia, Canada**
**Navigating the seas of change**
**The Canadian Health Library Association. 2008 Annual Meeting**
For further information: http://www.chla-absc.ca/assoc/conference.html

**23-28 June, Helsinki, Finland**
**Towards a new information space - innovations and renovations**
**11th European Conference of Medical and Health Libraries**
For further information**:** http://www.congreszon.fi/eahil_2008/

**21-22 July, 2008, Cardiff, Wales, UK**
**Impact and influence: evolving to succeed**
**The 2008 Health Library Group Conference**
For further information: **http://www.cilip.org.uk/groups/hlg/conf2008/index.html**

# Colophon





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If you wish to advertise in this journal, please contact the Secretariat at **EAHIL@nic.surfnet.nl**

**Instructions to Authors**
*Instructions to Authors* are available online at **www.eahil.net** . For further information please contact Sally Wood-Lamont, Chief Editor of *JEAHIL* **swood@umfcluj.ro**


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# ELECTIONS FOR THE EAHIL PRESIDENT AND EXECUTIVE BOARD MEMBERS

**To all EAHIL members**
Herewith the announcement that in 2008 elections will take place for the President and Executive Board members, for whom the term of office will end on 1.1.2009:

| | |
|---|---|
| Suzanne Bakker | will stand for President - has already agreed to a candidacy |
| Helena Bouzkova | 2005-2008 1st term - has already agreed to a candidacy |
| Manuel Colombi | 2005-2008 1st term - has already agreed to a candidacy |
| Meile Kretaviciene | 1st coopted member 2007-2008 – wants to step down |
| Benoit Thirion | 2007-2008 1st term - has already agreed to a candidacy |
| Enrica Veronese | 2nd coopted member 2007-2008 |

The election committee is seeking candidates both for the Presidency and for Board membership. **Candidates should be nominated by two EAHIL members** (see form on the next page). The President's election is separate from the election of the other Board members.

**EAHIL Nominations Committee**
It is very important to find and promote new and energetic people to take EAHIL forward. To improve the present arrangements of nominating members as EAHIL president and to the EAHIL board, the EAHIL Board has decided to set up a nomination committee. This was approved at the Council meeting and at the General Assembly in Palermo 2005. The nomination committee should have members from North, South, East and West Europe, who would actively seek out and encourage active EAHIL members to stand for EAHIL President and Board elections. **Of course, this does not preclude any two "ordinary" members from nominating someone;** it is just an extra measure to try to encourage new people to come forward and to revitalize the process. Members of the EAHIL Nomination Committee are: from the North (Eva Alopaeus); the West (Ronald Van Dieën) and the East (Sally Wood-Lamont), from the South (Margarida Meira).

**The Board particularly welcomes nominations of candidates from countries not yet represented on the Board.** The Board will co-opt as deputy members the two unelected candidates from the Board election who received the largest numbers of votes.

Please send the properly and fully filled form **NOT LATER THAN March 31st 2008** to the

EAHIL Election Committee
EAHIL Secretariat
PO Box 1393
NL-3600 BJ Maarssen
The Netherlands
fax: + 31 346550876

on behalf of the election committee:

**Suzanne Bakker**
**EAHIL President**

# EAHIL

European Association for Health Information and Libraries

| NOMINATION FOR | President* (2-years term)<br>Executive Board member* (4-years term) | 2008 election |
|---|---|---|

*please clearly mark what is applicable and strike out the other option

| | |
|---|---|
| I,<br>EAHIL member<br>Address:<br>City:<br>Country:<br>E-mail:<br><br>Date:<br><br>Signature: | I,<br>EAHIL member<br>Address:<br>City:<br>Country:<br>E-mail:<br><br>Date:<br><br>Signature: |

I hereby nominate as candidate for President*/Board member* in the 2008 EAHIL elections:

.....

Candidate for Presidency* / Executive Board membership*:

Name: .....

Function: .....

Institutional address: .....

City & Country: .....

Phone: .....

Fax: .....

E-mail: .....

Candidate's agreement:

I agree to be a candidate in the 2008 elections and am willing and able to serve on the Executive Board of EAHIL from 2009-2010 or 2009-2012 respectively.

Date: ..... Signed (by candidate): .....

This form should be sent not later than **March 31st, 2008,** to:

EAHIL Election Committee, EAHIL Secretariat, PO Box 1393, NL-3600 BJ Maarssen, The Netherlands. Fax: + 31 346550876

www.eahil.net