
Simplified access to MeSH tree structures on CISMéF

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INTRODUCTION

Catalogue et Index des Sites Médicaux Francophones (CISMéF) is an online catalog and index of health Internet resources for French-speaking health professionals and consumers [1]. Since February 1995, CISMéF has provided access in an organized fashion to the Web sites of institutions and scientific societies and their documents: technical reports, practice guidelines, consensus development conferences, and educational resources. Personal sites are also included, but only when the author is clearly identified and the site is very informative. A quality filtering process is used for selection of Web sites based on cooperative work regarding quality criteria of medical and health information [2, 3].

CISMéF was first oriented to health practitioners, but is now also available for patient use, as many sites are devoted to both professional and consumer information, and traditional "end users" no longer consist of only health professionals but also patients, their families, and anyone seeking health-related information. Since February 1999, two training sessions have been conducted for various patients' associations, in particular those associations for the disabled.

CATALOG STRUCTURE

CISMéF is organized using the Medical Subject Headings (MeSH) thesaurus, including the French translation from the French MEDLARS Center, the National Institute for Health and Medical Research. Alphabetic and thematic indices are available, as well as a permuted general index. As of April 24, 1999, 6,118 sites and documents have been indexed with 1,444 MeSH terms. Approximately seventy resources are indexed each week with the addition of appropriate new MeSH

terms. All MeSH terms are de facto major topic headings in CISMéF with a mean of 1.4 terms per resource.

SIMPLIFIED MESH USING META TERMS

All medical librarians know the complexity of the MeSH thesaurus and the need of a vast experience to use it with efficiency [4, 5]. For an inexperienced user, the structure of the MeSH tree is extremely difficult to understand. For example, in the field of virology, how can the noninitiated user know to search "virus diseases," "viruses," "antiviral agents," and so on. These important divisions are not immediately apparent to the novice.

Because the complexity of MeSH can be daunting to end users, particularly consumers, the concept of "meta-term" was employed on CISMéF to aid in retrieval. A meta-term indicates a medical specialty or a division of the biological sciences (e.g., cardiology or bacteriology). Thus on the CISMéF cardiology page [6], the sites of general interest are indexed and described (corresponding to the MeSH cardiology category) followed by a list of starting points of related categories and other associated MeSH terms:

Categories

- Cardiovascular agents
- Cardiovascular diseases
- Cardiovascular physiology
- Cardiovascular surgical procedures
- Cardiovascular system
- Diagnostic techniques, cardiovascular

MeSH terms associated

- Cardiac care, facilities
- Cardiology service, hospital
- Heart valve prosthesis

At the top of each category and its associated MeSH term pages, a "see also cardiology" hyperlink permits the users to return to the meta-term. The subheadings are also listed to allow end users to learn their usage. For example, at the top of the "diagnostic techniques, cardiovascular" category page, the following subheadings are listed: diagnosis, pathology, radiography, radionuclide imaging, and ultrasonography. Two guides to using CISMéF are also online, one for basic search [7] and one for advanced search [8].

Thirty-nine meta-terms have been developed so far. They are available from the thematic index [9], like Cardiology [mt] or Bacteriology [mt]. This list is, of course, still under construction and it has evolved in parallel with the indexing of new sites and documents.

CATALOG EVALUATION

Analysis of a representative period, the month of March 1999, showed that every working day users of

approximately 2,500 computers visited the CISMef site (excluding CISMef staff computers). During the entire month, users from 68,601 computers made 280,195 requests for HTML documents from the Web site. Queries originated from 114 different countries (44.12% from France, 30.85% from the United States, 10.55% from Canada, 4.37% from Belgium, 3.28% from Switzerland, and only 0.25% from Africa).

CONCLUSION

The authors believe that the simplified access to the MeSH tree structure can help users locate quality health information on the Internet more easily and more efficiently. It can also be used as a teaching tool to increase users' knowledge of MEDLINE.

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