

Knowledge Organization Scheme for Cross-cultural and Cross - Language Information Systems. A Discussion of Issues and Challenges

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Purpose

The purpose of our presentation is two-fold:

First, to describe the significant challenges that have been encountered in a project to form a general conceptual framework to cover concepts and terminology used for information retrieval in the field of complementary and alternative medicine (CAM).

Second, to initiate a discussion and seek advice regarding developing a knowledge organization schema for cross-culture information systems.

The need for a classification of complementary and alternative medicine (CAM)

Over the past several years, we have been working to develop a digital library in the diverse field known in the United States as complementary and alternative medicine (CAM). In doing so, we found there was no conceptual framework or compatible terminology that could be used, either nationally or internationally, for CAM information retrieval and knowledge exchange. Western researchers unfamiliar with the concepts and practices of various traditional systems of medicine, for example, have difficulty even knowing what concepts or terms to use to retrieve the information they want. The concepts and categorizations of disease states in Western medicine often have no obvious parallels or similar terminology in other traditions, where different concepts of illness and imbalance exist. This situation exists between Western and other traditional medicine systems, as well as among various traditional systems and cultures. Unfortunately, there is little communication among database producers regarding terminology. Although monolingual thesauri, classification schemes, and dictionaries do exist for several traditional medical systems, there has been no systematic exploration and representation of these pieces under one umbrella. The challenge for our project is to create a knowledge structure, or conceptual framework, that relates such individual classification systems for CAM to Western medicine, so that each system can be understood in the context of the other. That is, the conceptual framework must allow for a meaningful "translation" or encoding of concepts in one system so that they can be understood or decoded in the other system.

Preliminary findings and issues

We would like to report the preliminary findings of our efforts to date. Through our presentation we want to open a discussion of why we need to develop a conceptual framework instead of a multi-lingual terminology database or thesaurus and what issues and challenges we encounter when dealing with a cross-culture environment. Issues include:

- Subject coverage and correlation between models,
- Terminology and concept translation,
- Mapping with a Western frame of reference,
- Presentation of knowledge in a classification scheme,
- Presentation of relationships beyond hierarchical structure, and
- Visual presentation of concepts and relationships of concepts.

Questions

We attempt to develop a general conceptual framework to cover concepts and terminology used for information retrieval in the field of complementary and alternative medicine (CAM).

1. We would like to know from you what approach we should take: (1) to develop a classification scheme, or to develop a multilingual thesaurus? (2) to develop a unified standardized structure for the overall CAM areas, or to allow relatively independent systems exist under an umbrella structure?
2. We also would like to discuss: what are the most important capabilities this proposed conceptual framework should have: specificity, exhaustivity, scalability, sharability, or compatibility?