Linking and Using Multilanguage and Multidisciplinary Topic Maps

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Well structured and visualized knowledge is very attractive for human. It is a basic human desire and has been asked from Aristotle's time. Everybody could make it by himself. But making it from scratch is very laborious work and requires knowledge and views in many directions. Fortunately there are already many well structured knowledge systems in many fields individually and some of them are published on the Web. Sometimes they are called taxonomy, thesaurus, topic map or ontology. The following are the examples of them;

(1) in Library science: BSH (Basic Subject Headings), NDLSH (National Diet Library Subject Headings), LCSH (Library of Congress Subject Headings)

(2) in Agriculture: AGROVOC

(3) in Cultural anthropology: HRAF (Human Relations Area Files)

(4) in Information science: WordNet

Some of them consist of single language, some consist of multiple language. Some of them have links to other languages ones.

Topic Maps has high affinity and is very friendly to express and visualize them. It can be also transformed them easily. Topic Maps is a semantic technology and can support intellectual activity of humans. It is series of ISO standards and described as follows:

"Topic Maps is a technology for encoding knowledge and connecting this encoded knowledge to relevant information resources. ... "

Topic Maps has a mechanism to identify subject (concept) using URI or IRI (Internationalized Resource Identifier). It is called as PSI (Published Subject Identifier). If two subjects have the same PSI, they are treated as the same subject and can be unified even if they exist in different knowledge systems. By unifying the same subjects, multilanguage and multidisciplinary topic maps can be built from individual topic map. In result, we can think about subjects (concepts) from various points of view.

In this presentation, our efforts to make topic maps from structured knowledge will be showed. Some topic maps applications including visualization of knowledge will be presented. Some future challenges will be also discussed.