Comparative analysis of universal library classification: The Dewey Decimal Classification and the Korean Decimal Classification (Poster)

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Abstract

• As the Korean Decimal Classification (KDC) was independently developed as the Korean national library classification using the basis of the Dewey Decimal Classification (DDC) principles, Korean culture appears in the KDC as a proper reflection of cultural warrant. At the same time, the KDC also inherits some cultural features of the DDC. In the KDC’s adaptation of the DDC, it either aligns with the DDC or reflects specific aspects of Korean culture.

• These interactions between the two KOSs and inherent cultural features call for inquiry into an intercultural warrant. Thus, this study will examine the adaptation of a popular classification to accommodate a local culture when two different cultural warrants merge into an intercultural warrant. The study, therefore, will answer the following question: "What are the changes from the KDC’s adaptation of the DDC in view of its intercultural warrant?"

• This study aims at examining the influences of society and culture on the KDC's adaptation of the DDC. Thus, the analysis will focus on the changes resulting from the meeting of the two cultures. The study will take a comparative approach and start with a quantitative comparison of the KDC and the DDC to measure the degrees of variation between them by main class.

Background

• Social and cultural influences in KOS

Conceptual study

The importance of epistemology and contextuality in KOS systems

Empirical study

Examined the conceptual changes of a particular KOS which proved empirically the social influences in organizing knowledge

• A national library classification for South Korea, the KDC is an example of adaptation of the DDC in a view of a different sociocultural context. Because of the American influence on the development of Korean librarianship in the post-Korean War period, the KDC follows most of the fundamental principles and features of the DDC. Despite its DDC-like characteristics, the KDC has some classes, tables, and numbers that are distinguishable from their counterparts in the DDC. For example, the KDC had a major revision in structure of main class and a creation of a new table for religions to meet local needs (Oh, 2012).

Objectives & Methods

• The objective of the analysis is to compare the knowledge structures of the two classifications, in terms of the quantity of class numbers, that represent concepts and their relationships in each of the individual main classes.

• Through the comparison, the KDC will be examined to see its similarities and differences from the DDC.

• Analyzing the populations of the KDC and the DDC classes, by size, composition, and distribution, will find the differences in a macroscopic view.

• The analysis is expected to show empirical evidence of the KDC's adaptation of the DDC.

• Methods

With the help from Online Computer Library Center (OCLC), the owner of the DDC

Obtained the datasets containing the electronic records representing individual DDC class numbers

Obtained the electronic datasets containing records representing individual class numbers used in a recent study of the KDC (Jeon 2015)

Only compared DDC23 and KDC6, the most recent editions, in this study, and included counted classification numbers by the three integer range.

Language of the data set for the KDC is Korean, so referred English captions provided in the paper copies of the KDC editions.

Results

• The DDC exhibit larger variations of the quantities of class numbers among the recent three editions than the KDC.

• Changes of main classes among the recent editions are more varied in the DDC.

• Social science & Technology main classes of the KDC6 and the DDC23 were compared. The above figure 3 & 4 shows all three integer numbers in each class and how they are distributed by sub-classes.

• The 10 sub-classes were integrated into 9 sub-classes in matching the sub-disciplines (e.g., Economics and Commerce in the DDC23 were integrated, while Public administration and military science of the KDC 6 were integrated).

• The sub-classes had a little difference in size and location between two classifications, with how they are visualized in figure 5 & 6.

• In Social science (300 and both in the KDC6 & the DDC 23), except for the three sub-classes - 1. Social sciences, sociology, & anthropology, 2. Statistics, 3. Education, other six sub-classes were in different locations.

• In Technology (600 in the DDC 23 & 500 in the KDC6), only two sub-classes – 1. Technology & 2. Medicine & health were in a same order.

Conclusions

• Smiraglia, Schamhorst, Salah, and Gao (2013) suggested that the application of a quantitative approach and visualization to classification research permits observation of changes in classification such as size, composition, growth, and distribution. Thus, comparing the compositions of the main classes and distributions of concepts in the KDC and DDC will disclose the differences in their knowledge structures empirically.

• In this phase of quantitative analysis & visualizing techniques, I could analyze data descriptively so as to generate empirical evidence leading to interpretation.

• Inquiry for intercultural warrant

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