



Facet analysis as one among other theories of classification

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Introduction

The Universal Decimal Classification (UDC) was probably the first bibliographic classification system to apply facet-analytic principles although, according to Schulte-Albert (1974), the basic idea of faceted classification (FC) goes more than 300 years back in time.

The UDC was an early manifestation of principles later to be further developed by, among others, W.C. Berwick Sayers (1881–1960), S.R. Ranganathan (1892–1972), The British Classification Research Group (CRG) including Jack Mills (1918-2010) and B. C. Vickery (1918 -2009).



Introduction

The UDC is a system (and particularly was in its heydays) that was formed and updated by international groups of subject specialists. It was much closer to the scientific knowledge of the day compared to many other classification systems. Of course, these subject specialists had to submit to the general structure and principles of the UDC, but the most important feature was/is, I believe, that the classification tried to reflect up-to-date scholarly knowledge.

It is this aspect of classification theory that I find most important – and unfortunately rather neglected in theories, approaches and methodologies of classification - and also in classification practice.



Introduction

If the study of subject knowledge is ignored, classifications tend to focus too much on formal characteristics, user friendliness or other issues.

Example: Blake (2011, 469) wrote:

“At present, many, perhaps most, current bibliographic classifications for mammals reflect quite outdated science. The latest edition of DDC, for example, arranges mammals in essentially the same way as the second edition of 1885”
Revisions since DDC2 have mainly focused on adding detail and giving more guidance to users about where to place certain taxa”.



Introduction

If we accept that classifications should not represent outdated science, what then are the implications for classification theory and methodology?

It follows that classification is an activity that is not external to, but a part of research in the domain to be classified. Birds, for example, are first and foremost classified by ornithologist, not by information specialists. In order to make qualified choices for information systems, information professionals need updated subject knowledge in the respective domains.



Different theories and approaches to classification

In several writings, most recently in Hjørland (2017) I have claimed

(1) that theories of classification are based on theories of knowledge and

(2) that the basic theories of knowledge are:

- Rationalism
- Empiricism
- Historicism
- Pragmatism



Different theories and approaches to classification

Rationalism corresponds to the applications of rules, e.g. rules of logical division and other logical principles.

Rationalism is also built on certain assumptions about the world, e.g. that behind the confusing empirical reality, it is possible to reveal a fundamental order.

I have claimed that facet-analysis must mainly be considered a rationalist theory of classification.



Different theories and approaches to classification

Empiricism corresponds to the applications of empirical observations (and inductions from a pool of observations).

A strict literary warrant principle is an example of an empiricist methodology (and Hulme (1911), the originator of this principle was also the originator of “statistical bibliography”, now called bibliometrics).

Statistical methods in general are based on the principles of empiricism (but the classifications thus derived tends to be very unstable).



Different theories and approaches to classification

Historicism and pragmatism both consider knowledge a social-cultural product and criticize the individualist assumptions in empiricism and rationalism.

Neither observations nor rules (for classification or knowing) are “given”, but are theory-laden and influenced by scientific paradigms and sociocultural conditions.

In order to classify a given domain, we have to consider the different “paradigms” in the domain.



Different theories and approaches to classification

I have often used Ørom (2003) as an example. He identified different paradigms in the field of art history and demonstrated how different library classifications are more or less clearly influenced by those paradigms.

The idea that you can provide a classification of art by ignoring such paradigms is in my opinion a wrong assumption. LIS classification cannot “be above” such paradigms. *Any classification can, at least by principle, be shown to favor some views of art at the expense of other views. There is no neutral set of terms or neutral structure of concepts.*



Henry Bliss versus Jesse Shera

Henry Bliss assumed that (1) there is a fundamental order of nature (2) that science is able to reveal this fundamental order (3) that LIS classification is able to identify a consensus in science and thus represent this order in classification systems. Shera (1951, p. 82) explicitly criticized this view:

“Even a cursory examination of the history of classification of the sciences emphasized the extent to which any attempt to organize knowledge is conditioned by the social epistemology of the age in which it was produced [...].

...



Henry Bliss versus Jesse Shera

Here, then, is an implicit denial of Bliss' faith in the existence of a 'fundamental order of nature,' a rejection of the belief that there is a single, universal, logically divided classification of knowledge." ...

In the same paper Shera criticized the assumptions in Aristotelian logic (on which facet-analysis rests, cf. Mills, 2004).



Henry Bliss versus Jesse Shera

Shera expressed the pragmatic approach very clearly and thereby demonstrated the close connection between pragmatism and social epistemology:

“The pragmatic approach to classification through meaningful units of knowledge must be based on recognition of the obvious truth that any single unit may be meaningful in any number of different relationships depending on the immediate purpose. *Thus, it is the external relations, the environment, of the concept that are all-important in the act of classifying ...*



Henry Bliss versus Jesse Shera

... A tree is an organism to the botanist, an esthetic entity to the landscape architect, a manifestation of Divine benevolence to the theologian, a source of potential income to the lumberman. Pragmatic classification, then, denies the existence of the “essence” of tree, for each of these relationships owes its existence to different properties of the tree. Relationship is not a universal, but a specific fact unique to the things related, and just as these relations reveal the nature of the relata, so the relata determine the character of the relationship. (Shera 1951, pp. 83-84; italics in original).



Facet analysis

It is perhaps best first to state what facet-analysis (FA) does not do:

- (1) It does not make empirical studies of samples of literatures (like, for example, bibliometric studies)
- (2) It does not study of different views, paradigms and interests associated with given domains (like, for example, Ørom 2003).

Although it is correctly stated by Tennis (2008) that Ranganathan, for example, consider many practicalist issues in classification, it is not pragmatism, as discussed by Shera.



Facet analysis

In spite of practicalist elements, facet analysis is mainly based on logical division (cf. Mills, 2004) and the logic of Aristotle.

Also the way domains are analyzed (e.g. the medical domain in Mills 2004) are clearly rationalist (but impressive in its logic and clarity).

Facet analysis may be characterized as based on modern theory (as opposed to postmodern classification theory, cf. Mai, 2002, 2011).

The methodology of FA tend to focus too much on formal characteristics and too little of subject knowledge.



Facet analysis

Satija's (2017) article on Colon Classification concluded: "The idea of providing a universal standardized classification of knowledge seems to be in conflict with the realization that all KO systems are cultural and temporal in their making".

And Parrochia and Neuville (2013, 17) also found "Since the 1950s, several decades of research in Information Science did not solve anymore the problem of a general theory of classifications in library science ... some author was even wondering whether such a classification is possible (see [Mai 2002])".



Conclusion

Facet-analysis is an influential tradition in knowledge organization.

Despite its strengths, it is important to realize that it is only one among other approaches and that in general, basic assumptions in “modern” classification theory has been challenged.

An important trend today is to focus on the consequences of different ways of classifying (see, e.g. Bowker & Star 2000).



Conclusion

In order to consider consequences of classification, subject knowledge is important. Today, our community has too little contact with subject specialists. (James Blake was, for example, a lonely person with interest in zoological classification, but he left this domain).

In ISKO Encyclopedia of Knowledge Organization we invite experts from all domains to write about classification in their respective fields. We hope it will help reestablishing the strong connection to subject experts.



Thanks for your attention!



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