

Historique et contextes de l'utilisation de la notion de facette en sciences de l'information / *Historic overview and contexts of facet notion in information science*

NOTE aux lecteurs : Tout au long du document, cliquez sur l'icône  qui se trouve dans le coin gauche supérieur pour accéder au texte lu lors de la présentation.

Simon Côté-Lapointe

École de bibliothéconomie et des sciences de l'information de l'Université de Montréal, EBSI

EBSI-SIS Symposium, January 29, 2016, McGill University.



Presentation plan

1. History of the notion of facet
2. Contexts of the notion of facet
3. Facet analysis, faceted structure and faceted search interface
4. Conclusion



1. History of the facet notion

Intellectual period

Antiquity

- Aristotle's logical division
- Top-down analysis

Late 19th, beginning 20th : precursors

- Sayers, Otlet, Julius Otto Kaiser

1924 : Ranganathan

- Paradigm shift : 1st bottom-up classification system
- 5 fundamental categories to analyse subjects or objects

Institutional & technical period

Institutional

- 1) 1950-1968 : First experiments with information retrieval systems
- 2) 1969-1979 : Thesaural developments and classificatory extensions
- 3) 1980-1989 : Revision, criticism, and automation

Technical : computing environment

- 4) 1990-1999 : Databases, Interfaces, and Retrieval Systems
- 5) 2000 + : Facet theory applied on the web

Source : La Barre, 2010, p.255-266).

Problem of definition

- Term in everyday language
- Ambiguity of the notion :
 - Faceted classification (process or structure?), faceted search, facet analysis, etc.
- Application in various environments
- Several fields : information science, linguistics, computer science, social science



2. Contexts of the facet notion

Information science

Ranganathan

- 1952 : 1st use of the term “facet”
- designate a set of characteristics

Fundamental categories

- General rule of division
- Basis for facet analysis.
- Example of fundamental categories :
 - PMEST (Ranganathan) Personality, Matter, Energy, Space, Time.
 - CRG : 13 categories

Citation & notation order

Social science & linguistics

Social science

- Guttman (1960)
- Similar conceptualization with IS

Linguistics

- Filmore Case grammar for linguistics analysis
- Similar notions with IS (semantics & semiotics to analyze facets of subjects)
- Links with IS (Maniez, Gnoli, etc.)

Computer science

Broader meaning of the facet notion:

Harter (1986)

Tunkelang (2009)

Dumais (2009)

Rapprochements between IS and computer science

Spiteri (1998)

Vickery (2008)

Frické (2013)

Multiple definitions

Broughton (2006) :

- 1) bibliographic fields & metadata
- 2) list of object based on their properties
- 3) fundamental categories and facet theory

La Barre (2010) :

- 1) subject component
- 2) general manifestation of a subject
- 3) groups of terms derived by taking each term and defining it, per genus et differentiam, with respect for its parent class

Information science

Two schools of thought

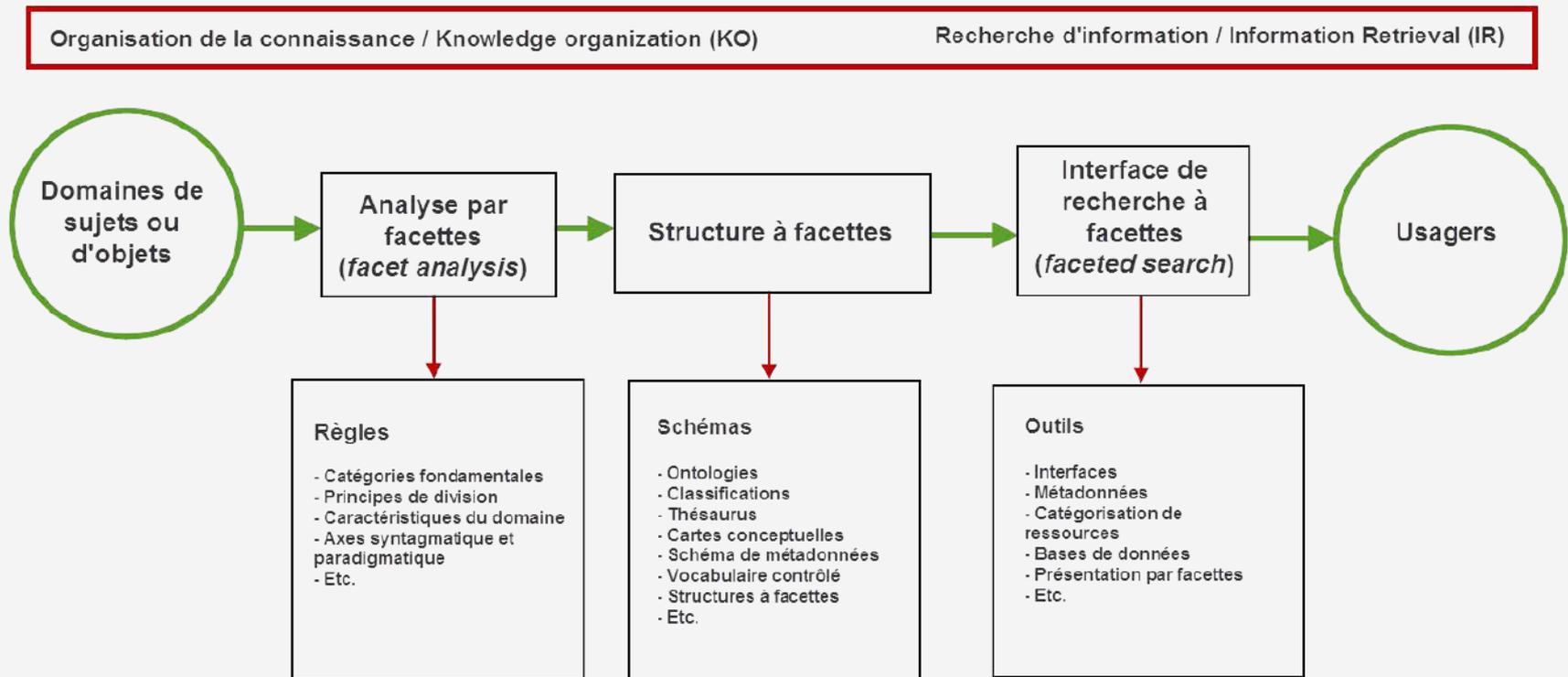
British school (Traditional view)	Inseparable from the facet analysis as seen by Ranganathan et le CRG Two meanings : 1) Designate fundamental classes extracted from fundamental categories; 2) Set of terms associated with a fundamental class.
North American school	Definition derived from the traditional view, but 1) looser, general, practical meaning inspired by the computer science view 2) do not necessarily taken into account fundamental categories, citation order or notation .



3. Facet analysis, faceted structure and faceted search interface



Modalities of facets



Facet analysis

Analytico-synthesis process in compound subjects :
deconstruction (analysis) + reconstruction
(synthesis)

Facet definition at this modality

- Facets are the result of the analysis of the domain based on fundamental categories.

Faceted structures

Characteristics

- Standardized terms schema (Vickery, 1960)
- Express semantic & syntactic relationships
- Post coordinated structure
- Many forms

Facet definition at this modality

- « denote any component of a compound subject — be it a basic subject or an isolate—and also its ranked forms, terms, and numbers » (La Barre, 2010, p.270)

Faceted search interface

Adaptation of the classification structure to an interface

Ersatz facets (Frické, 2013)

- Focus on objects properties rather than aspects
- Boolean relation between terms (order have no impact on search result)

Attention : facets are more than filters

Faceted search interface

Ersatz facets example

Languages

Archives types

Geographic subdivisions

Narrow your results by:

Showing 627 results
Service d'archives

Search service d'archives

Sort by: Alphabetic

LANGUAGE

ARCHIVE TYPE

All

- University/College 19
- Government 17
- Community 12
- Religious Organization 9
- Historical Society 7
- Library 5
- Educational Organization 5
- Ethnic Organization 4
- Medical Organization 4
- Municipal 4

GEOGRAPHIC REGION

GEOGRAPHIC SUBREGION

LOCALITY

THEMATIC AREA

Artefactual Systems Archives

Acadia University Archives

Admiral Digby Library and Hist...

Agassiz-Harrison Museum
WHERE HISTORY PRESERVES COMMUNITY

Alberni District Historical Societ...

Alberton Museum

Alberta Health Services



4. Conclusion



Definitions summary

Contexts

- *General meaning of facets*
- *Modalities :*
 - *Facet analysis (IS & linguistics)*
 - *Faceted classification (IS)*
 - *Faceted search interface (IS et computer science)*

Definition still to clarify...



Questions ?



Sources analyzed

- Beghtol, C. (2008). From the Universe of Knowledge to the Universe of Concepts: The Structural Revolution in Classification for Information Retrieval. *Axiomathes*, 18(2), 131-144. doi: 10.1007/s10516-007-9021-0
- Broughton, V. (2006). The need for a faceted classification as the basis of all methods of information retrieval. *Aslib Proceedings: New Information Perspectives*, 58(1/2), 49-72. doi: <http://dx.doi.org/10.1108/00012530610648671>
- Dumais, S. Faceted Search. (2009). Dans L. Liu et M. T. Özsu (dir.), *Encyclopedia of Database Systems* (p. 1103-1109). Springer.
- Foskett, D. J. (2009). Facet Analysis Dans *Encyclopedia of Library and Information Sciences, Third Edition* (p. 1818-1822). New York : Taylor & Francis.

Sources analyzed

- Frické, M. (2013). Facets: ersatz, resource and tag. *Information Research*, 18(3).
- Gnoli, C. (2008a). Facets: A Fruitful Notion in Many Domains. *Axiomathes*, 18(2), 127-130. doi: 10.1007/s10516-008-9032-5
- Godert, W. (1991). Facet classification in online retrieval. *International classification*, 18(2), 98-109.
- Hjørland, B. (2013). Facet analysis: The logical approach to knowledge organization. *Information Processing & Management*, 49(2), 545-557. doi: 10.1016/j.ipm.2012.10.001
- La Barre, K. (2010). Facet analysis. *Annual Review of Information Science and Technology*, 44, 243–284.
- Maniez, J. (1999). Des classifications aux thésaurus: du bon usage des facettes. *Documentaliste*, 36(4-5), 249-260.
- Mills, J. (2004). Faceted classification and logical division in information retrieval. *Library Trends* 52(3), 541-570

Sources analyzed

- Spiteri, L. (1998). A simplified model for facet analysis. *Canadian Journal of Information and Library Science*, 23, 1-30.
- Tunkelang, D. (2009). Introduction: What are Facets? Dans *Faceted search* (p.3-9). San Rafael, Californie : Morgan & Claypool Publishers.
- Vickery, B. (2008). Faceted Classification for the Web. *Axiomathes*, 18(2), 145-160. doi: 10.1007/s10516-007-9025-9