DEVELOPING IMAGED KOS WITH THE FRSAD MODEL: A CONCEPTUAL METHODOLOGY

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1

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THE SCOPE OF THE FUNCTIONAL REQUIREMENTS FOR SUBJECT AUTHORITY DATA (FRSAD) MODEL

- To build a conceptual model of entities within the FRBR (for Bibliographic Records) framework as they relate to aboutness;

- To provide a clearly defined, structured frame of reference for relating the data that are recorded in subject authority records to the needs of the users of that data;

- To assist in an assessment of the potential for international sharing and use of subject authority data both within the library sector and beyond.
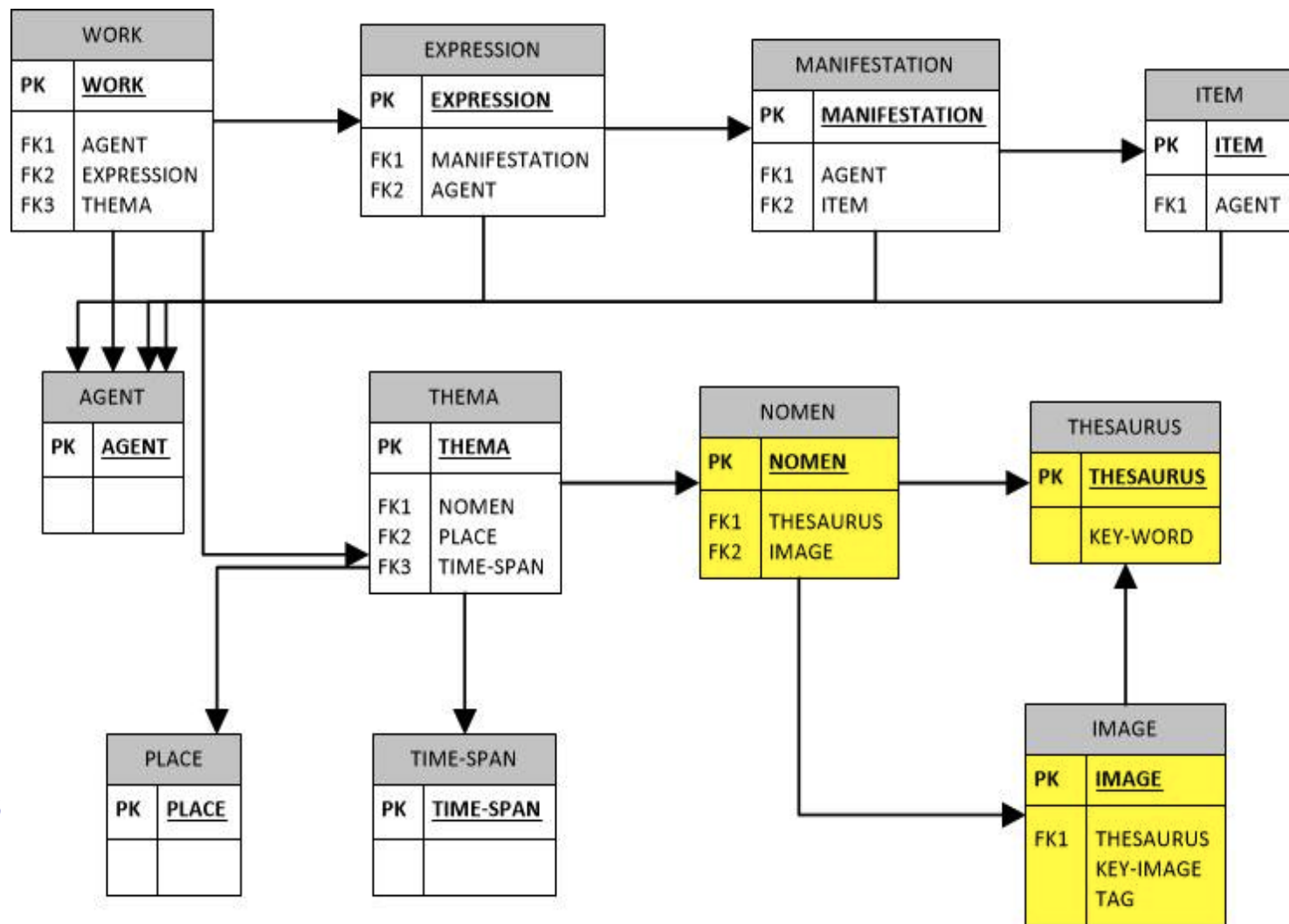
(Zeng, Žumer and Salaba, 2011)

2

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FRSAD SUPPORTS THE IDEA THAT:

- *Work* has as subject *thema*, and
- *Thema* has appellation *nomen*.
- *Nomen* is any sign or combination of signs (alphanumeric characters, symbols, sound, etc.) that a *thema* is known by, referred to or addressed as.
- *Nomen* is a superclass of the FRAD (for Authority Data) entities Name, Identifier, and Controlled access point.

(Zumer, Sabala and Zeng, 2007)

3

The imaged KOS model as a FRSAD element

Source : adapted from Riva and Žumer (2015)
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4

- The *imagetic* model is a user-focused mechanism compatible with Functional Requirements for Subject Authority Data – FRSAD.

- The KOS described here is not an OPAC but a model for indexing by images to support an OPAC based on a semiotic approach.

- Designing OPACs, using the imaged indexing initiative, will involve not only IT solutions but also giving answers to epistemological questions inherent to the nature of images.

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5

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IMAGETIC ONLINE CATALOGUE – iOPAC

- *Nomen*, through images and thesauri terms, are in relation with documents and contents.
- The OPAC document, "which introduces combinatorial diversity of the content, redefines the relationship between content and usage. The form – the presentation which cannot simply be reduced to the page setting or the formatting of the characters – carries with it a diverse set of semiotic usage values".
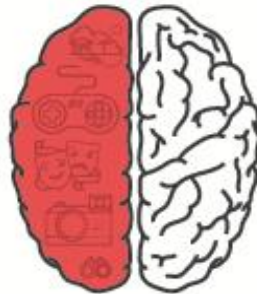(Papy 2016, 103-104)

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...IS DUE TO THE FACT WE ARE 'VISUALLY WIRED'

1
ALMOST
50%
of your brain is involved in **visual processing**
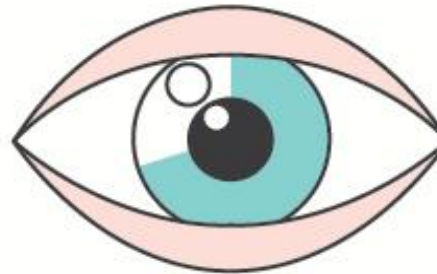
2
70%
of all your **sensory receptors** are in your eyes

3
1/10
OF A SECOND
is all it takes you to understand a **visual scene**
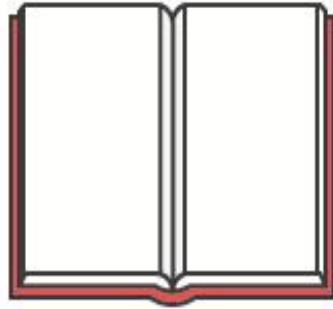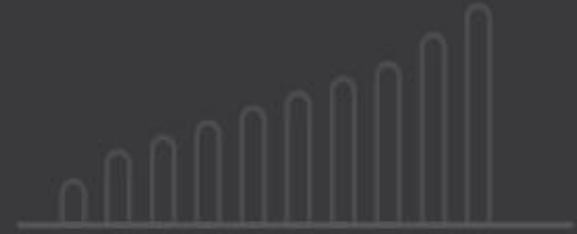
Produced by

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7

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THE HUGE INCREASE
IN VISUALIZED
INFORMATION...
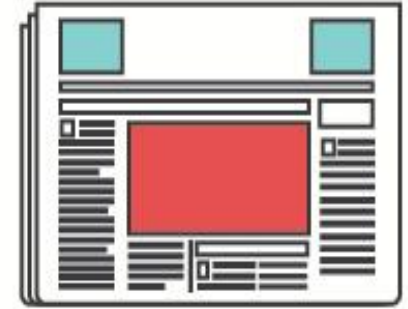
400%
in literature
(since 1990)

9900%
on the internet
(since 2007)

142%
in newspapers
(between 1985 & 1994)

Produced by

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8

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Refer to

Refer to

With advantages of 100 ms to attach a meaning to it.

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9

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In equilibrium

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10

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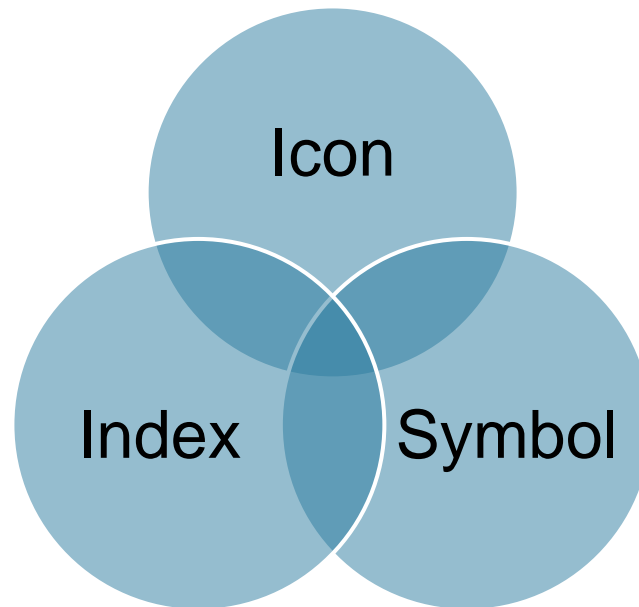
PROPOSAL OF THE *IMAGETIC* MODEL

- Taking the image as a sign to use it for content description.
- It gives birth to the *Key-image* concept.

(De Brito and Caribé ,2015).

11

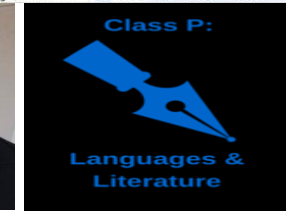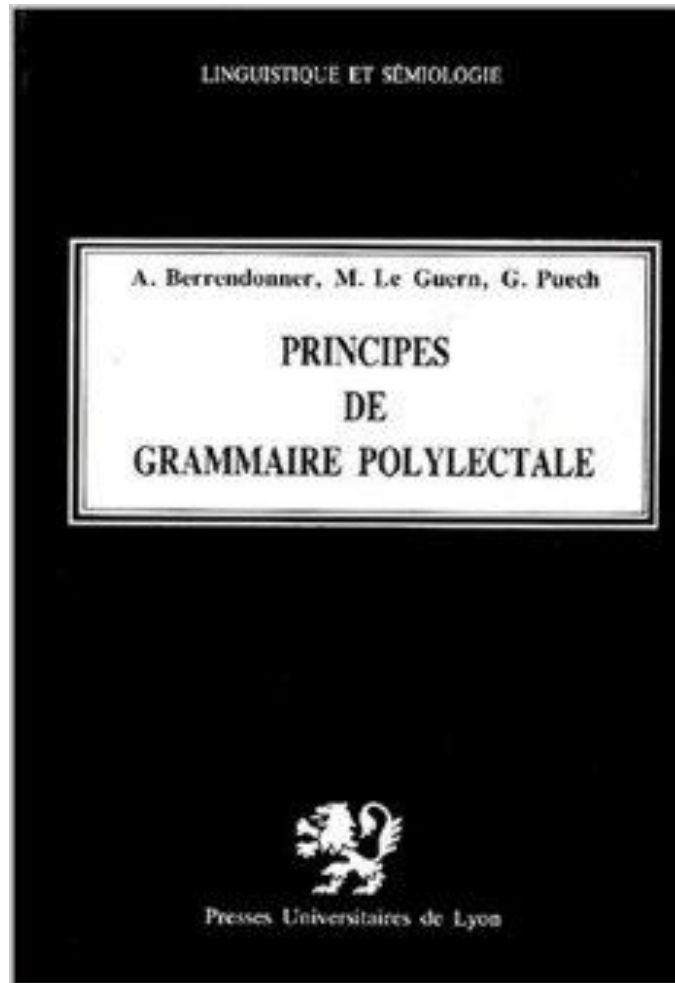Developing imaged KOS with the FRSAD model: a conceptual methodology

SEMIOTIC CONTRIBUTIONS

- The emerging 'key-image' concept means substitution or equivalence with the key-word concept commonly used to describe subject contents.

- The procedure of intentional construction of images is inspired from Jacques Bertin's works who demonstrated that image composition follows the rules of linguistic semiotic.

(BERTIN, Jacques, 1970)

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EXAMPLE OF *KEY-IMAGE :*

ICONIC, INDICIAL AND SYMBOLIC PROPRIETIES

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13

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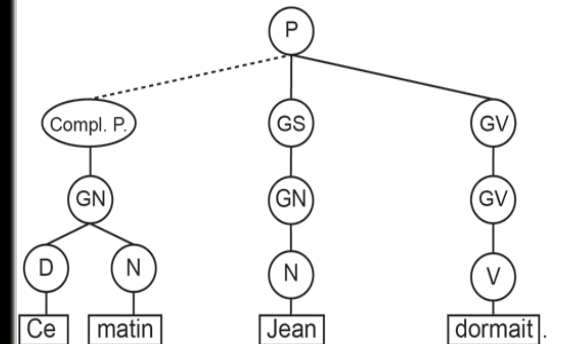
INTEGRATING NOMEN FUNCIONALITIES INTO OPACS

- Following interoperable web design principles, (RDF and XML), the *imagetic* model can be integrated into an OPAC system supporting a variety of uses:
    - query expansion in search,
    - resolving ambiguous subject use in resources, and
    - promoting serendipitous discovery of new links among and between documents.
- In short, to access, convert, or reuse web content from a variety of domain-specific and general resources.

14

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Imagetic online catalogue – iOPAC
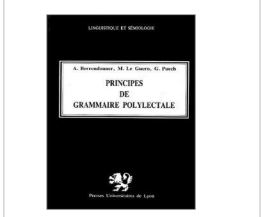
- The conceptual model of imagetic indexing proposes that images are related to topics, in the same way that key-words are.

- The indexing processes are analysed under the perspective of the sign both as a word and as an image to show correlations between signs from literal and imaged universes.

- While associated with topics, images can be interpreted as *nomens* within FRSAD conceptual model.

15

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BOOK RECORD SIMULATION WITH KEY-IMAGE INDEXING

Author's reference

Geolocation

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16

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THE *IMAGETIC* ONLINE CATALOGUE – iOPAC

GRAPHIC REPRESENTATION OF UDC 10 CLASSES

0	1	2	3	5	6	7	8	9
GENERALIDADES	FILOSOFIA / PSICOLOGIA	RELIGIÃO / TEOLOGIA	CIÊNCIAS SOCIAIS	MATEMÁTICA / CIÊNCIAS	CIÊNCIAS APLICADAS	ARTES / ENTRETENIMENTO	LINGUÍSTICA / LITERATURA	HISTÓRIA / GEOGRAFIA
SCIENCE AND KNOWLEDGE. ORGANIZATION. COMPUTER SCIENCE. INFORMATION. DOCUMENTATION. LIBRARIANSHIP. INSTITUTIONS. PUBLICATIONS	PHILOSOPHY. PSYCHOLOGY	RELIGION. THEOLOGY	SOCIAL SCIENCES	MATHEMATICS. NATURAL SCIENCES	APPLIED SCIENCES. MEDICINE. TECHNOLOGY	THE ARTS. RECREATION. ENTERTAINMENT. SPORT	LANGUAGE. LINGUISTICS. LITERATURE	GEOGRAPHY. BIOGRAPHY. HISTORY
01 - Bibliography and bibliographies. Catalogues	11 - Metaphysics	21 - Prehistoric religions. Religions of early societies	31 - Statistics as a science. Statistical theory	51 - Mathematics	61 – Medical sciences	71 - Physical planning. Regional, town and country planning. Landscapes, parks, gardens	81 - Linguistics and languages	91 - Geography. Exploration of the Earth and of individual countries. Travel. Regional geography
02 – Librarianship		22 - Religions originating in the Far East	32 - Politics	52 - Astronomy. Astrophysics. Space research. Geodesy	62 – Engineering. Technology in general	72 - Architecture	82 - Literature	92 - Biographical studies. Genealogy. Heraldry. Flags

Note: Public domain images. Classification table parcially illustrated for study purposes. Adapted from Public Library, Azores Government.

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THE *IMAGETIC* ONLINE CATALOGUE – iOPAC

EXPANDING CLASSES AND SUBCLASSES INTO A FACETED NAVIGATION

Note: Public domain images. Classification table parcially illustrated for study purposes. Adapted from Public Library, Azores Government.

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EXAMPLE OF *IMAGETIC* OPAC

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21

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NEXT STEPS

Source: https://commons.wikimedia.org/wiki/File:The_Library_of_Congress_Classification_System.png

22

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NEXT STEPS

- iOPAC navigation using Library of Congress Subject Headings or other taxonomy.

- Visualizing the imaged thesaurus.

- Expanding the desired associated categories within local network and semantic relationships.

- The navigation is faceted, it involves horizontally between choices of classes and vertically among subclasses.

- Each level of subsequent prospection is assisted by sets of key-images to refine the documentary retrieval process.

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ɪOPAC Advantages

- Greater visual attraction pushing users towards the library catalogue.
- More intuitive comprehension of indexing codes.
- Larger conceptual portability of descriptors (as images), and
- Better synergy between discourse codes and indexing competences affecting positively social and cultural interoperability.
- Taking advantage of *nomens* funcionalities throughout FRSAD model, the iOPAC "introduces the combinatorial diversity of the content redefining relationships between content and usage".

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CONCLUDING REMARKS

- Indexing with images brings us to reconsider the paradigms about using only key-words to describe documents contents.

- The *imagetic* model can be implemented as a user-focused mechanism compatible with FRSAD.

- The *key-images* announce a legitimate approach to index documents with multiple perspectives in technical, professional and social areas.

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Concluding Remarks

- A broader area for interface developments in digital libraries is now available with effective benefits for handicapped users such as deaf people or groups with functional illiteracy in general.

- The iOPAC is proposed as a product, a service, an interface and also an assistive technology for social interoperability.

- The *imagetic m*odel is an ongoing project that a future prototype beta iOPAC is to be tested.

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