



A faceted structure to organize and access Web resources in Education

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Virtual libraries

Collections of live links to Web resources that have been evaluated, selected, described, indexed, and classified by specialists to facilitate access and use



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Search GEM / ERIC



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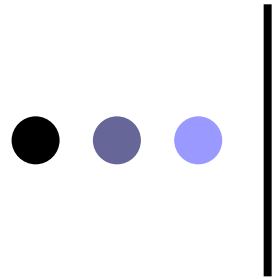
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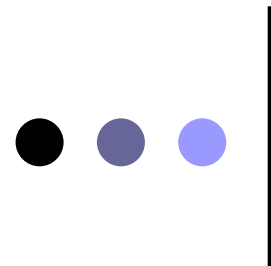
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Outline

- The project (2003-2007)
- Findings of Phase 1
- Why a faceted structure ?
- Description of the structure
- Application of the structure (by indexers)
- Still to be done ...



The project (2003-2007)

Characterize the structures provided to browse the collections of existing virtual libraries in the field of Education

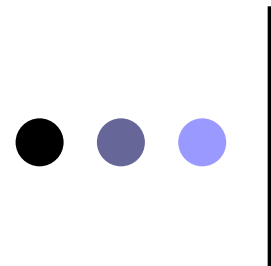
Design an alternate navigation / classification / access structure, taking into account the needs and behaviours of researchers in Education

Use the structure to provide access to a virtual collection of Web resources of interest to Francophone researchers in the field of Education



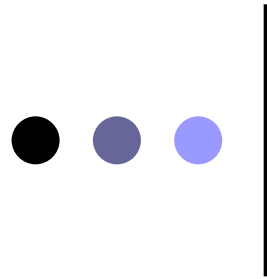
Phase 1 - Findings

- Analysis of six *home-grown* structures used in existing virtual libraries
 - Structure, Logic, Semantic (Mas 2007)
 - Structures hierarchical, not overly complex, not very specific
 - Structures easy to apprehend and navigate
 - Structures not flexible, and not adapted to the technological environment within which they are applied
 - Hudon, Mas, Gazo, *CJILS*, 2005



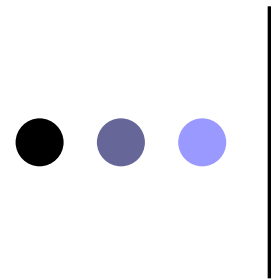
Why a faceted structure ?

- Windows environment and contemporary networks ideal for implementing analytico-synthetic principles and practices suggested by Ranganathan (Broughton 2002; Ellis 2000; LaBarre 2006; Van der Walt 2004; Zins and Guttman 2000)
- Facet : Characteristic, indicator, criterion used to divide a class or set of objects into homogeneous subsets



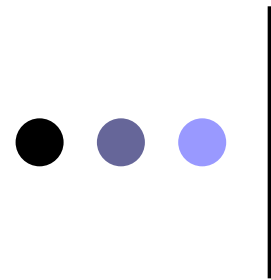
Method

- Sample collection of resources
- Classification of each resource using *DDC* and *ERD*
- Indexing of each resource using *ÉDUthès*
- Identification of categorial facets (Maniez)
- Identification of structural facets
- Development of the faceted structure



Stage 1 : Sample collection

- French language resources only
- 25 themes used as basis for collection development
- 408 resources (or live links)
- Variety of resource types (portals, journal articles, bibliographies, institutional web sites, reference works, reports, etc.)
- Description : Title, URL, Source, Availability of links to other relevant resources



Examples of resources in sample

- *L'équité des systèmes éducatifs européens : un ensemble d'indicateurs* [Doctype: Report]
- *Renouveau pédagogique* : Laval, Laurentides et Lanaudière [Doctype: Portal]
- Louis-Ambroise Vicomte de Bonald [Doctype: e-book]
- Collection Éducation et Sciences [Doctype: Publisher's site]

● ● ● | **Stage 2 : Classification / Indexing**

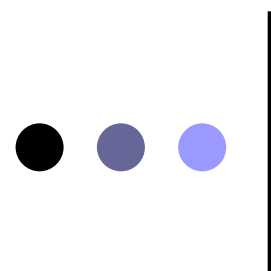
○ Classification

- *Dewey Decimal Classification (DDC)*
- *The Educator's Reference Desk (ERD)*
- Objective : Identify structural facets

○ Indexing

- *ÉDUThès : Thésaurus de l'éducation*
- Objective : Create a bank of terms usable to name classes

Title	<i>L'équité des systèmes éducatifs européens: un ensemble d'indicateurs</i>
URL	http://europa.eu.int/comm/education/programmes/socrates/observation/equality_fr.pdf
Theme	Questions éthiques ?
Source	Groupe européen de recherche sur l'équité des systèmes éducatifs / Projet soutenu par la Commission européenne, Direction générale de l'éducation et la culture
Doctype	Document textuel
Links	Non
<i>DDC</i>	370.94 Education—Geographical treatment —Europe 379.26 Educational equalization (Equal educational opportunity)
<i>ERD</i>	General Education—Comparative Education / Educational Management—No Child Left Behind
<i>ÉDUthès</i>	Éducation comparée / Système scolaire / Indicateur social / Indicateur économique / Indicateur de rendement / Différences sociales / Égalité en éducation
Abstract	Rapport final explorant les divers facteurs de l'inégalité en éducation en les traduisant en indicateurs (motivation, inégalité sociale, différence culturelle ...)



Stage 3 : Categorical facets

- Five generic facets
 - Agent (WHO)
 - Activity/Process (WHAT)
 - Method/Instrument (HOW)
 - Space (WHERE)
 - Time (WHEN)
- One supplementary facet
 - Foundations (Zins and Guttman 2000)

● ● ● | **Stage 4 : Developing the structure (1/3)**

- Principle of division by essential characteristic
- Five levels only
- Balanced at the deepest level
- Alphabetical order everywhere
- Terms : Most current, simplest in form, most accessible
- [Example 3rd level](#)

QUI ? AGENT	Personnes / Individus	<i>Selon l'âge</i>
		<i>Selon le rôle ou la fonction</i>
		<i>Selon le sexe</i>
	Organismes / Institutions	

<i>Fondements</i>	Éducation (<i>généralités</i>)	Terminologie de l'éducation	
	Histoire de l'éducation		
	Philosophie de l'éducation	Droit à l'éducation	
		Éthique de l'éducation	
		Valeur de l'éducation	
	Théorie de l'éducation	Apports disciplinaires	



Stage 4 : Developing the structure (2/3)

- Principle of division by essential characteristic
- Five levels
- Balanced at the deepest level
- Alphabetical order
- Terms : Most current, simplest in form, most accessible
- [Example](#)

QUOI ? ACTIVITÉ / PROCESSUS	Enseignement	<i>selon la clientèle</i>	Enseignement aux adultes
			Enseignement aux immigrants
			Enseignement aux personnes ayant un handicap
		<i>selon la discipline</i>	Enseignement de l'administration
			Enseignement des arts et lettres
			Enseignement des langues
			Enseignement des mathématiques
			Enseignement des sciences appliquées
			Enseignement des sc. de l'éducation
			Enseignement des sc. de la nature
			Enseignement des sc. de la vie
			Ens. des sc. humaines et sociales
		<i>selon la finalité</i>	Alphabétisation



Stage 4 : Developing the structure (3/3)

- Pre-coordination of concepts :
Enseignement + Sciences sociales
- Classes not mutually exclusive
- Lists of classes not exhaustive
- 6 top level facets / 25 second-level classes /
86 third-level classes / 142 fourth-level
classes / 62 fifth-level classes
- 288 classes

● ● ● | Example of fifth-level class

1. AGENT
2. Personne
3. *Selon la fonction*
4. Administrateur
5. **Registraire**

Agent > Personne > *Selon la fonction*
> Administrateur > **Registraire**



Stage 5 : Application (1/3)

- Perspective : Classifier, describe and organize [Example](#)
- Extension / Coverage : oriented and limited by the contents of the sample collection

Enseignement 20, 27, 79, 113, 117, 136, 138, 142, 143, 168, 173, 178, 182, 183, 184, 188, 189, 194, 342,	<i>Selon la clientèle</i>	Enseignement aux personnes ayant un handicap 18,	
		Enseignement aux adultes 59,	
		Enseignement aux immigrants	
	<i>Selon la finalité</i>	Alphabétisation	
		Éducation civique 8, 93,	
		Éducation sociale	
		Formation de base 17,	
		Formation continue 32, 66,	
		Formation diplômante	
		Formation professionnelle	
		Formation technique	
		Enseignement préscolaire	
		Enseignement primaire 38, 39, 40, 238,	



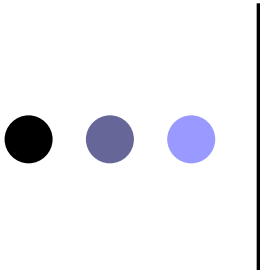
Stage 5 : Application (2/3)

- Navigational logic : Number of top level facets restricted / Generic hierarchy / Alphabetical order
- Flexibility : Redundancy in contents (same class appearing in various places / Redundancy in naming (Étudiant ► Étudiant ayant des difficultés d'apprentissage) / Multiple allocations



*En quoi les TIC changent-elles les pratiques
d'ingénierie pédagogique du professeur
d'université?*

- *FONDEMENTS* ► Théorie de l'éducation
► **Pédagogie**
- *AGENT* ► Personnes ► *selon le rôle ou la fonction*
► **Personnel enseignant**
- *ACTIVITÉ* ► Enseignement/Formation ► *selon le
niveau* ► Enseignement postsecondaire
► **Enseignement universitaire**
- *MILIEU* ► Milieu institutionnel ► Établissement
d'enseignement ► *selon le niveau* ► **Université**
- *MILIEU* ► Milieu géopolitique ► Amérique du Nord
► Canada ► **Québec**
- *MOYEN* ► *pour l'enseignement et l'apprentissage*
► **Technologie éducative**



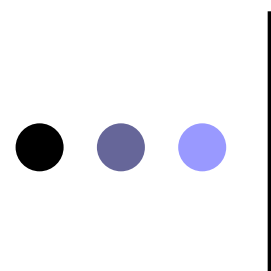
Système d'information sur la recherche universitaire

- AGENT ► Personnes ► *selon le rôle ou la fonction* ► Chercheur
- AGENT ► Personnes ► *selon le rôle ou la fonction* ► Personnel enseignant
- ACTIVITÉ ► Recherche
- MILIEU ► Milieu institutionnel ► Établissement d'enseignement ► *selon le niveau* ► Université
- MILIEU ► Milieu géopolitique ► Amérique du Nord ► Canada ► Québec
- MOYEN ► *pour la recherche* ► Subvention de recherche
- MOYEN ► *pour la recherche* ► Contrat de recherche



Stage 5 : Application (3/3)

- Extensibility and structural hospitality : confirmed by integration of specific classes and restructuring of several sections to improve navigational logic



Still to be done ...

- User validation
 - Researchers in education
 - Design of database and appropriate search interface
 - Use and evaluation of the structure by information searchers
- Vocabulary control
- Theoretical validation



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