




L-IDM
(Logic IDM Design)



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+ Introduction

- C-IDM design identifies the characteristics of CONTENT – what the dialogue is about



- Next step: Logic Design
 - Taking decisions about the fine-grained structure of information among which navigation will take place
 - Creating the building blocks upon which pages and interaction will be designed (during Presentation Design phase)



+ L-IDM: answering some key design questions

Continuing the dialogic methafor:

- Sometimes **topics** (of a given kind) are “big”: What should be said about each (kind of) topic? Which are the **self-contained units** of dialogue about a topic (of a given kind)?
- What should be said about each (multiple) **group of topics**?
- What should be said at each “**switch of subject**”, i.e., when the dialogue flows from one topic to a different one (by effect of a relevant relationship)?

+ L-IDM key concept: DIALOGUE ACT

DIALOGUE ACT (from linguistics) = “*A dialogue act is a **unit** in the communicative behaviour in dialogue*” “*Dialogue is a flow of dialogue acts between actors – senders and receivers*”

In web applications:

DIALOGUE ACT = a unit (i.e., **atomic** element) of **content** offered by **the application** to the user during the dialogue

- asymmetric definition: we consider here system’s generated dialogue acts only

+ L-IDM key concept: DIALOGUE ACT

Dialogue = navigation

hence

Navigation flow = flow of system's generated dialogue acts

- requests of informations expressed by the user (through the interface)
- informative or persuasive (or operational) content offered by the application

+ DIALOGUE ACT

Different roles for dialogue acts:

- Talking about a **TOPIC** (of a given kind) **exhaustively**
 - Example
- Talking about a “**CHARACTERISTIC**” of a **TOPIC** (of a given kind)
 - Example
- Introducing a **GROUP OF TOPICS**
 - Example 1 (compare with Example 2)
- Introducing a **SWITCH** from a **TOPIC** to a (set of) **DIFFERENT one(s)**
 - Example (Museum Room->ArtWorks in the room)

+ DIALOGUE ACT

Very often (NOT always) dialogue act = page

Examples:

- One act=> One page
- Multiple acts => one page
- Multiple acts=>one page
- One act=> multiple pages (to avoid)

+ DIALOGUE ACT

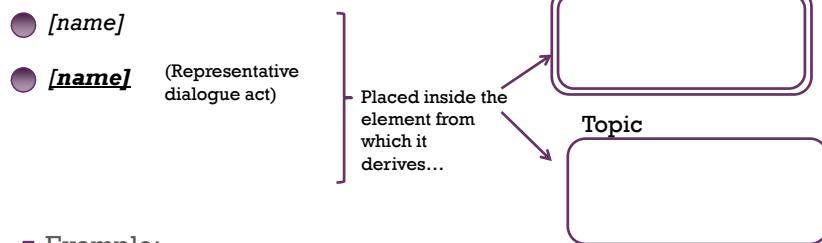
Three categories – and related terminology:

- **Content Dialogue Act:**
 - A dialogue unit about a topic (of a given kind)
- **Transition Act**
 - A dialogue unit about a switch of subject, i.e, a relevant association
- **Introductory act:**
 - A dialogue unit about a group of Topics (within multiple group of topics)

+ Content Dialogue Acts (CDAs)

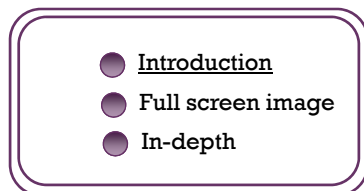
- may result from a FRAGMENTATION PROCESS of a topic large content
 - Example:
 - Topics of Kind Paintings are fragmented in Content Dialogue Acts: Introduction, (Narrative) Full screen image, bibliography, exhibition history, provenance
- CDAs can be
 - mandatory (default) or optional (must be explicitly specified)
 - single (default) or multiple (must be specified)
- REPRESENTATIVE (or DEFAULT) CDA
 - Usually, one “fragment” (CDA) is “more important”, more “representative” than others, and is mandatory, i.e., always present in all topics of a given kind
 - In P-design, entry points for navigation

+ Content dialogue act Notation

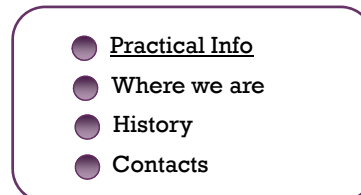


■ Example:

Painting

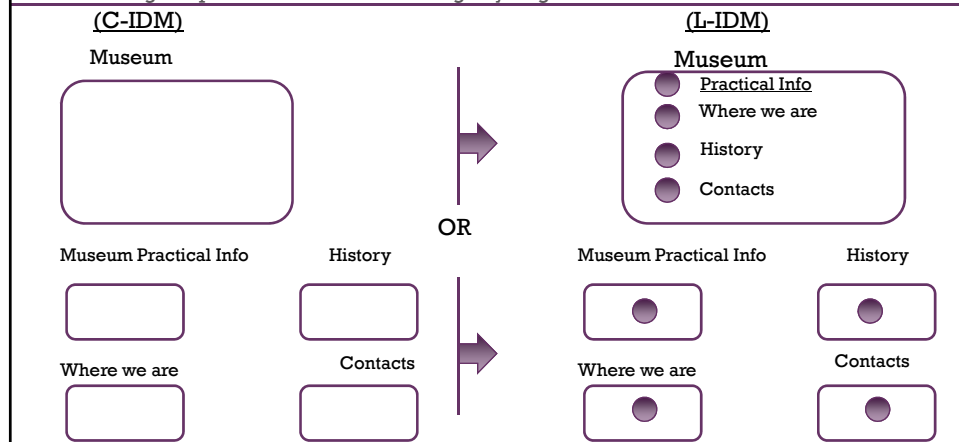


Museum



+ From Topic to CDS: Fragmentation Criteria & Design Issues

- FRAGMENTATION IS A SUBJECTIVE somehow arbitrary ACTIVITY
- EG. Fragmenting in C-IDM or in L-IDM?
 - Ex: Fragmenting single topics may be equivalent to defining many single topics in C-IDM and avoiding any fragmentation in L-IDM



+ From Topic to CDS: Fragmentation Criteria & Design Issues

- Some fragmentation criteria
 - Content size (large amount of content should be split to be more readable, more usable....)
 - Content nature
 - User profile
 - Multiple media

+ From Topic to CDS: Fragmentation Criteria & Design Issues

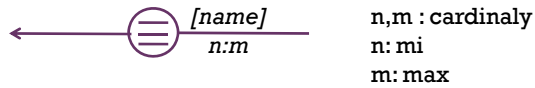
Example Multiple Topic “Print” can be fragmented:

- By size:
 - CDAs “Introduction”, “Further details”
- By content nature:
 - CDAs “Subject” “Technical info”, “Historical info”, “Artistic comments”
- By user profile:
 - CDSs “Description (for non experts)” “Description (for experts)”
- By media:
 - CDA “Textual + Small image description” “Full screen Image” “Animated Image”.

+ Transition Dialogue Act (TDA)

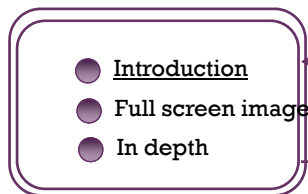
- Goal: Introducing/Explaining a change of dialogue subject
- Induced by relevant relationships having max cardinality >1
 - E.g. From a Technique to the Prints created using that technique
- Non always necessary (depends on cardinality)
- Seldom necessary when cardinality is [1:1] or very low
 - Eg. From a Print to its (only) related Technique
- It has usually some content inside, more often:
 - A list of items (for the related Topics) – each one described by a “preview” of the Topic (name, thumbnail image, ... and, or
 - A descriptive/explanatory text for the whole set of related items
 - Example “Titian’s paintings” or “Drypoint Prints”

+ Transition dialogue act Notation



■ Eg

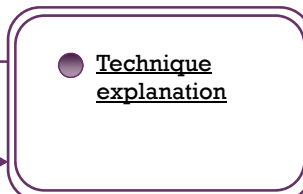
Painting



Used in
1:n

Used
1:1

Technique



+ Introductory Dialogue Act (IDA)

Goal: to introduce/explain a (multiple) group of topic

- It has usually some content inside, more often:
 - A list of items (for the grouped items) – each one described by a “preview” of the group member (name, thumbnail image, ...)

and

- A descriptive/explanatory text for the whole set of grouped items

Examples

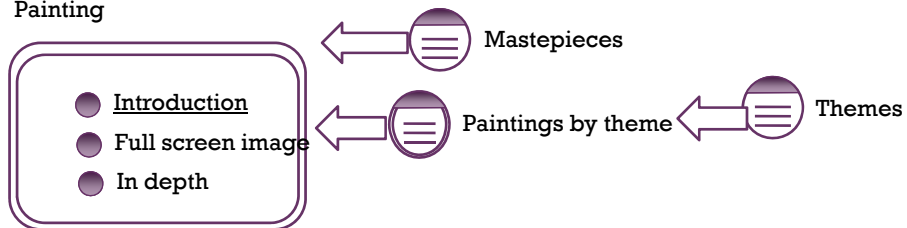
- “Masterpieces”
- “Paints for the various paintings”
- “14° century paintings”
- “Antwerp in early 1500”

+ Introductory dialogue act Notation



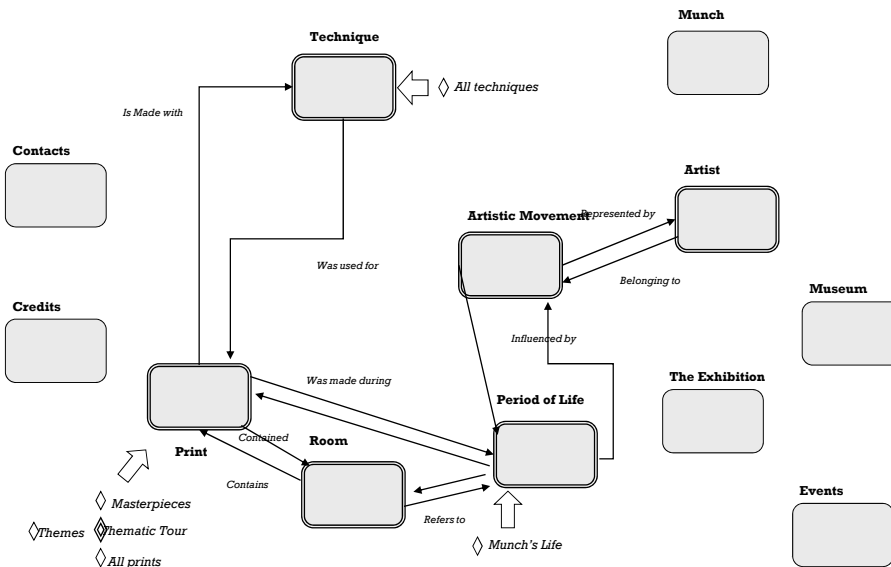
■ Eg

Painting

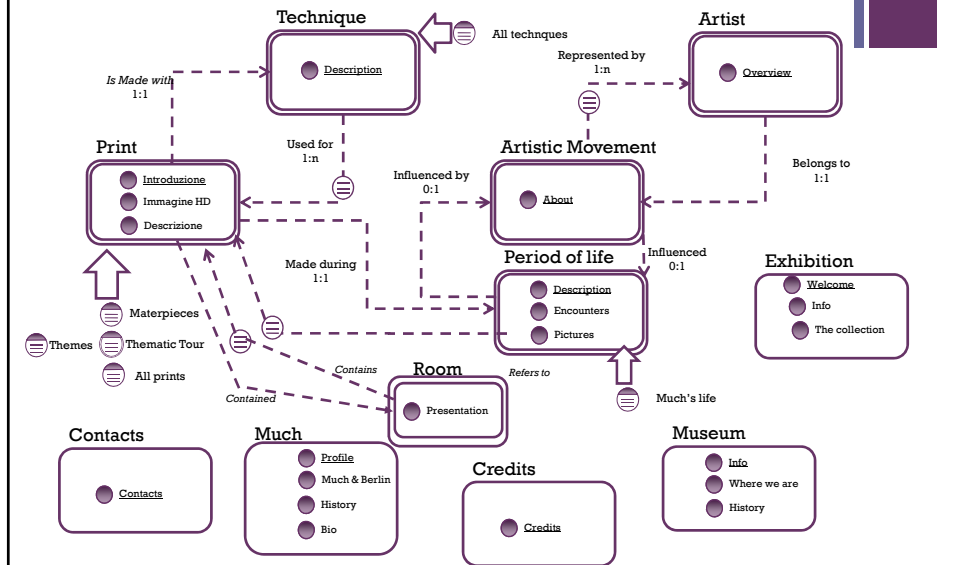


C-IDM _schema (see C-IDM slides - cardinality missing: add it as an exercise)

Munch und Berlin exhibition - www.munchundberlin.org - C-IDM



+ L-IDM: Munch



+ L-IDM Documentation

Diagram + textual description



Textual documentation

- For each Single o Multiple topic
 - Name + Fragmentation criterium + List of Content Dialogue Acts
 - Default (representative) Dialogue Act
 - For each non obvious CDA: short description
- For each TDA of a Relevant Relationship
 - Short description of its content; in case of List of items, ordering / grouping criteria
- For each IDA of a Group
 - Short description of its content;
 - Ordering / grouping criteria of grouped elements

+ Exercise

Analyze the following web sites:

- <http://www.muchundberlin.org>
- <http://www.moma.org/>

and identify

- Topics
- Multiple topics
- Group of topics
- Multiple groups of topic
- Dialogue acts
 - CDAs
 - IDAs
 - TDAs

