



Open Educational Topic Maps: A Text-oriented Perspective

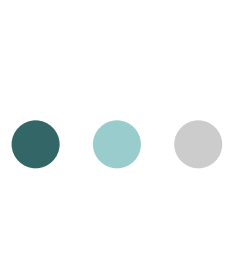
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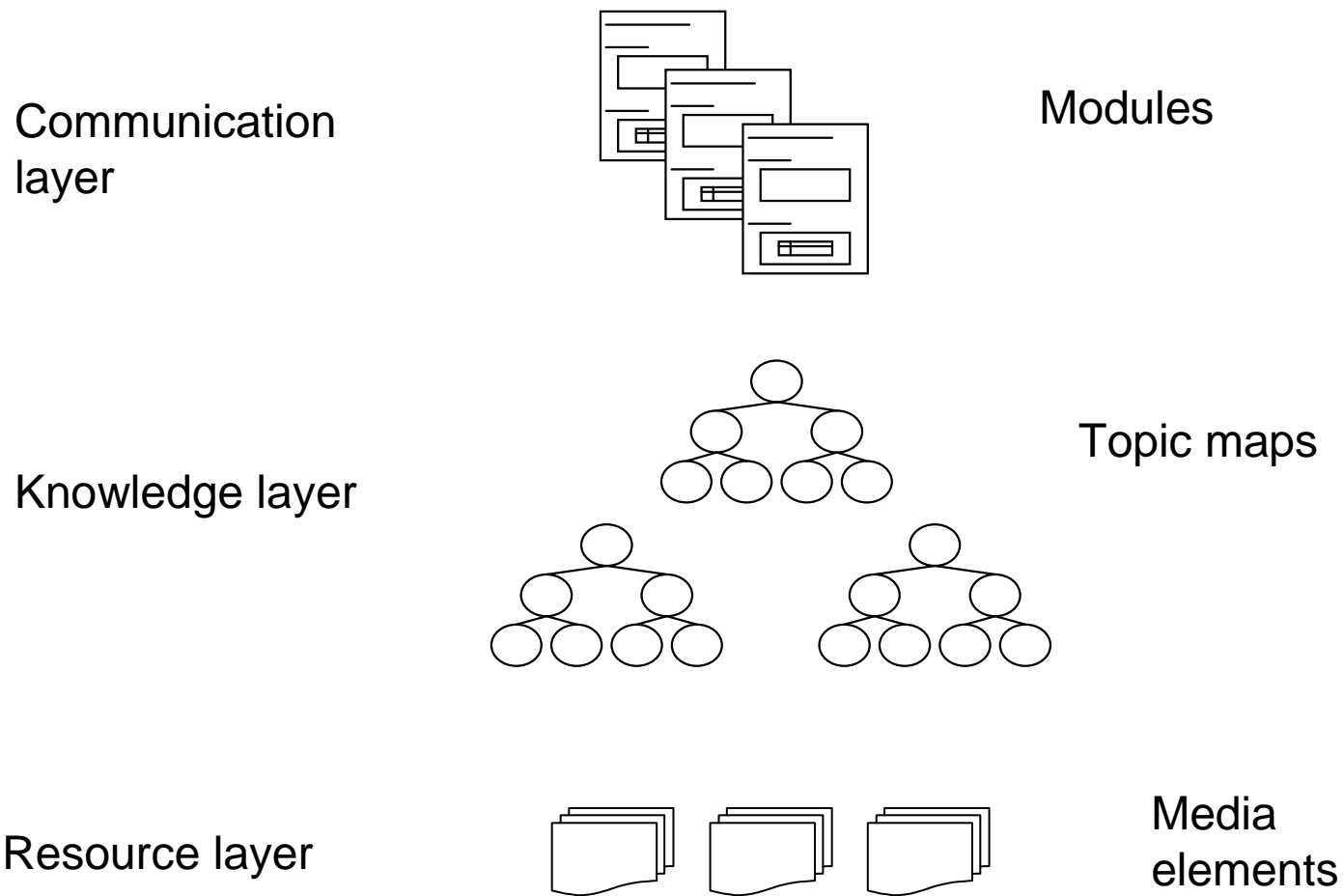


The seven C's of educational TM

	Subject matter	Communi- cation	Reuse, interopera- bility
Information system	Content	Cohesion & Coherence	Compliance
Environment	Concepts	Contexts	Connectivity

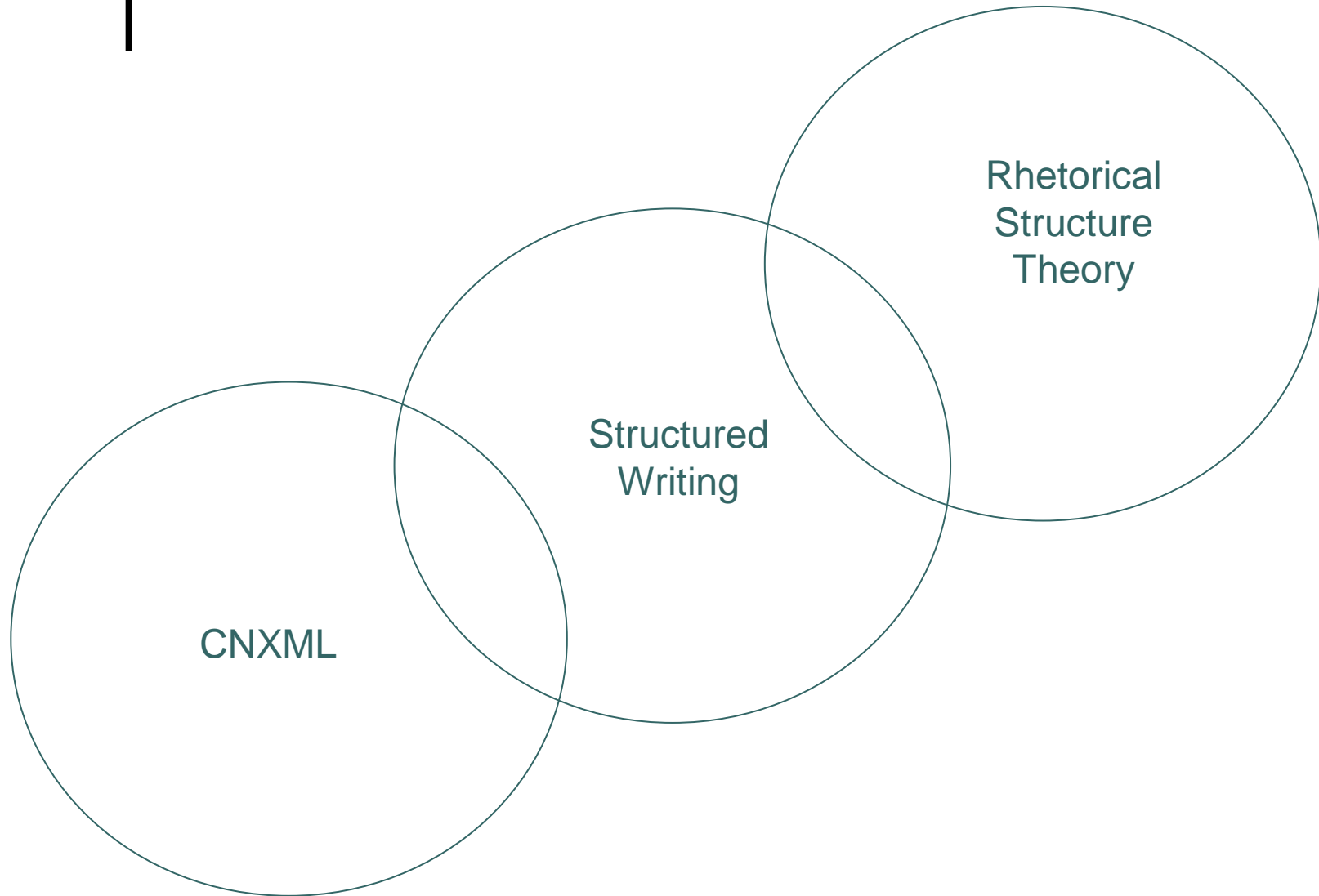


An e-learning architecture based on TM





An approach ...





CNXML

```
< cnxml >
< > ..... < > ..... < >
..... < > .... < > ....< >.
< > ..... < > ..... < >
..... < > .... < > ....< >.
< > ..... < > ..... < > ..... <
> ..... < > .....< >.
< /cnxml >
```

- Connexions project
- Document-oriented
- No markup for domain knowledge structures or subject identity
- But: elements with source attribute (term, foreign)
- Alternative: DITA

```
<term src="http://www.example.org/xyz">xyz</term>
```



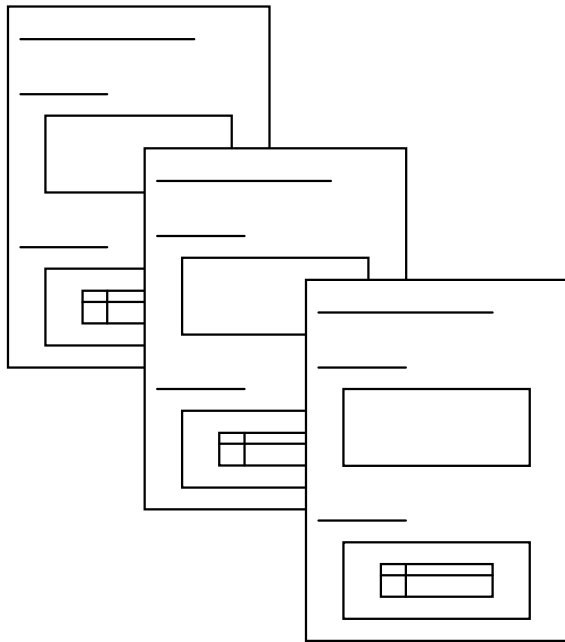
Structured Writing

- Guidelines for
 - analyzing,
 - organizing,
 - presenting and
 - sequencing content

Inventor: Robert Horn



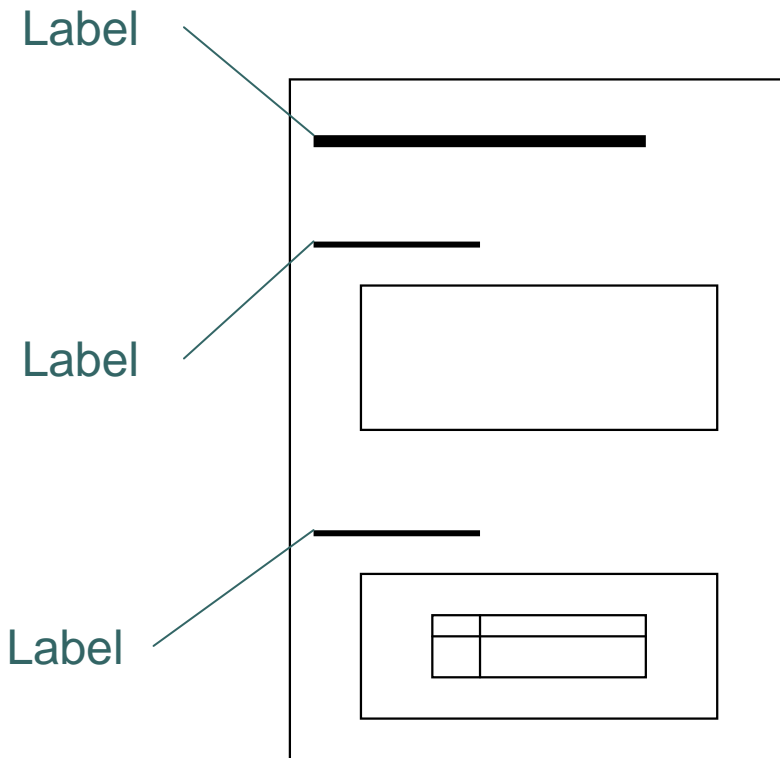
The principle of chunking



- Chunk content into small units:
 - Information blocks (one informational objective)
 - Information maps (five to nine blocks)



The principle of labeling



- Labels support scanning and browsing
- They indicate contents or communicative function



The principle of relevance

Keep
information
types apart!

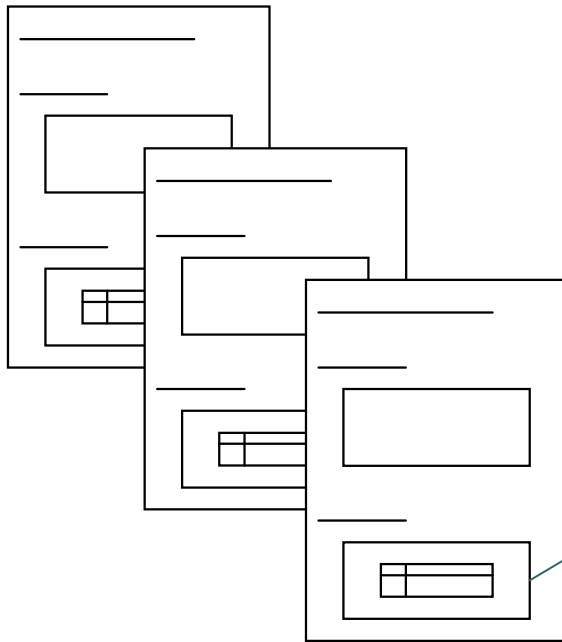
- Concept
- Procedure
- Process
- Structure
- Fact
- Principle
- Classification

Information types



The principle of consistency

- Be consistent
 - structurally
 - visually
 - linguistically



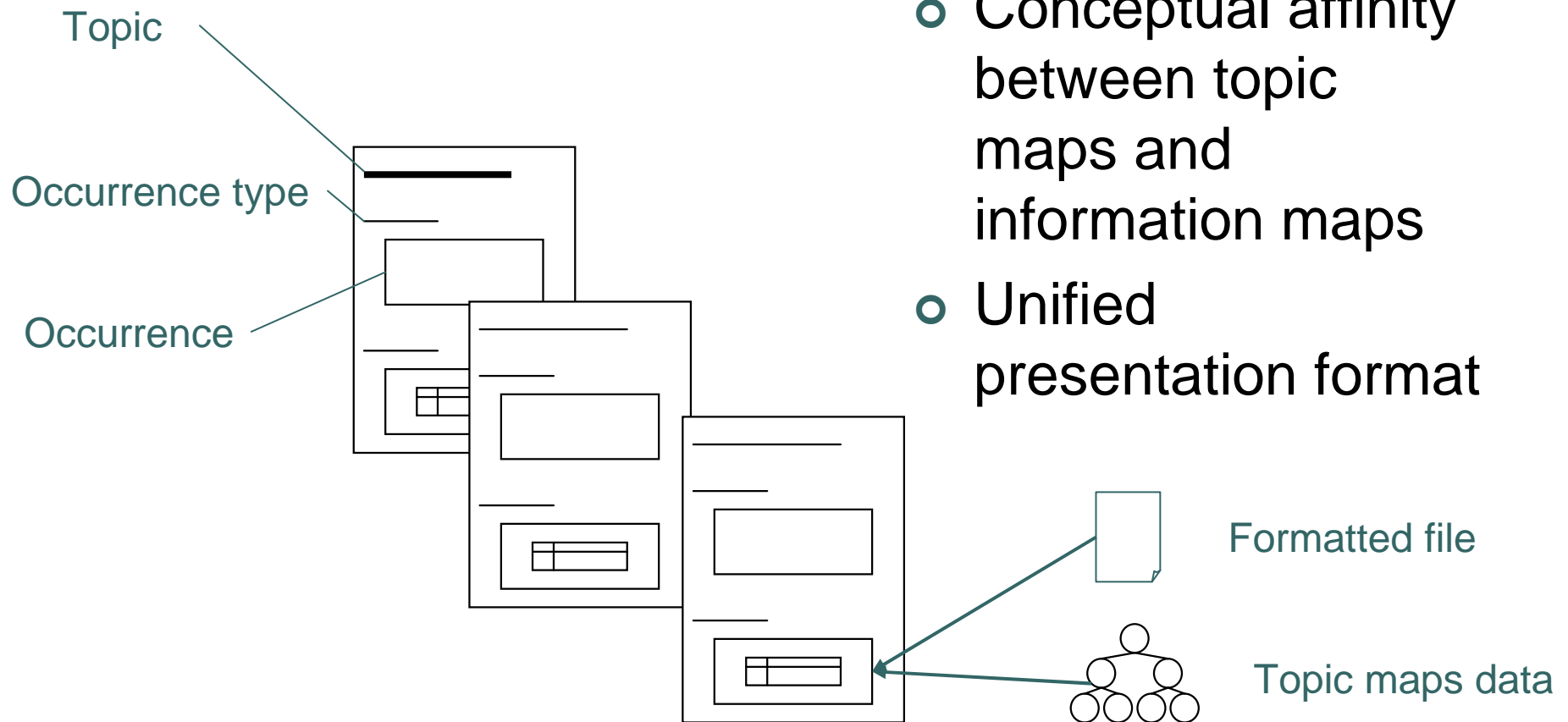
Often tabular formats ...

Step	Action
1	Do this
2	Do that



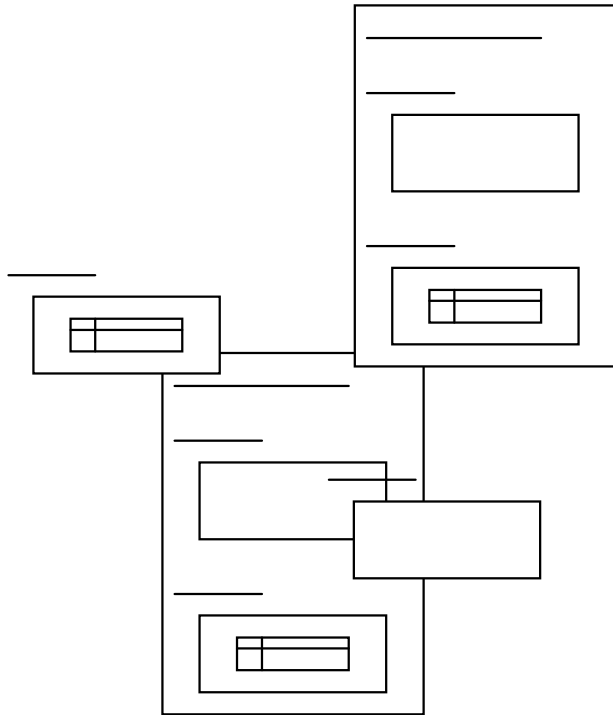
Why Structured Writing?

- Raising awareness
- Conceptual affinity between topic maps and information maps
- Unified presentation format



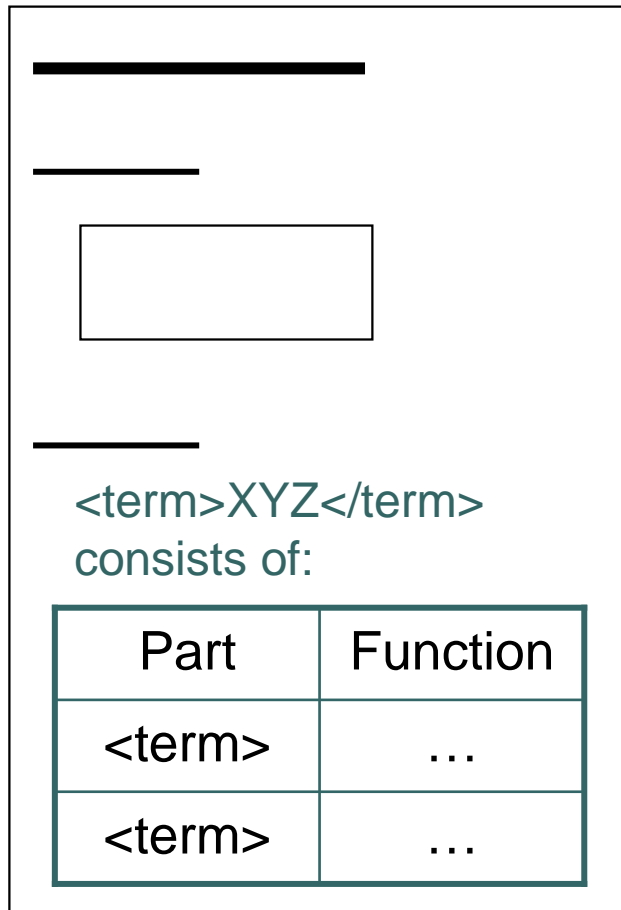


Why Structured Writing II?



- Content layering
 - Adding blocks and maps to blocks and maps (like Legos)
 - = Laying facts upon facts, facts upon concepts, etc.

Why Structured Writing III?



The diagram illustrates a structured writing format. It features a large outer rectangle containing several elements: a thick horizontal line at the top, a shorter horizontal line below it, a rectangular box, another shorter horizontal line, and a paragraph of text. The text includes a teal-colored XML tag `<term>XYZ</term>` followed by the phrase "consists of:". Below this text is a table with two columns: "Part" and "Function". The table contains two rows of data, each with a teal-colored XML tag `<term>` in the "Part" column and "..." in the "Function" column.

Part	Function
<code><term></code>	...
<code><term></code>	...

- Information extraction

CNXML + Structured Writing



Rhetorical Structure Theory

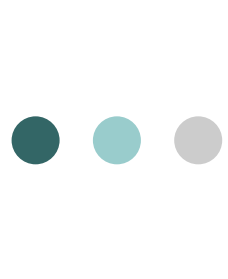
- Cohesion
- Coherence
- Text as hierarchy
- Nuclei vs satellites
- Rhetorical relations

- 1) The butler was the murderer. He was holding the smoking gun.
- 2) Sherlock Holmes had identified the culprit. The butler was the murderer.

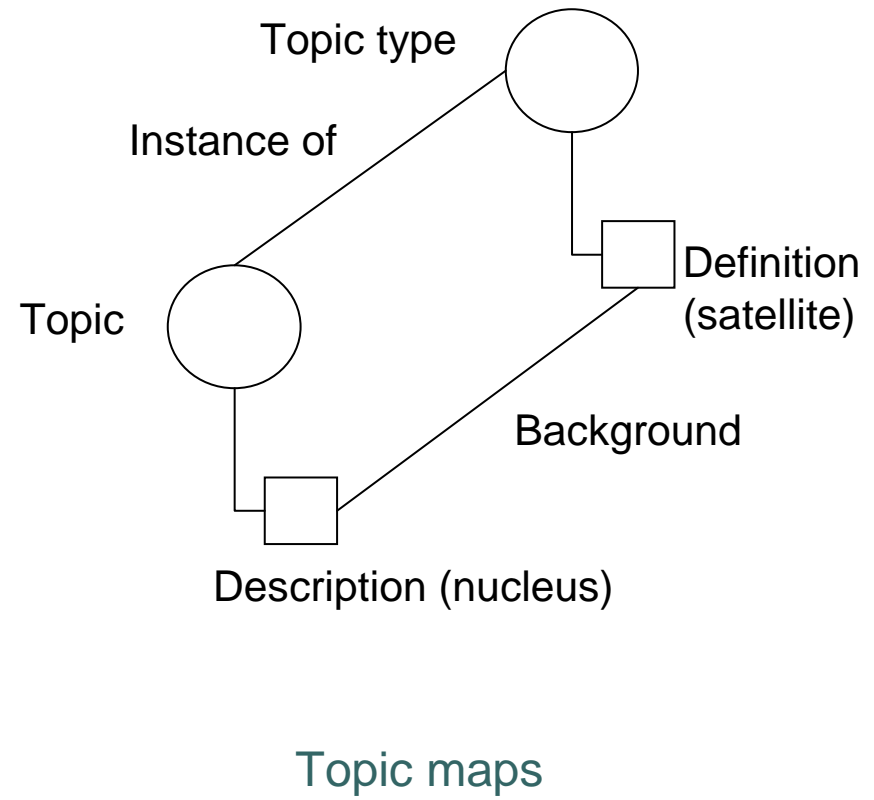
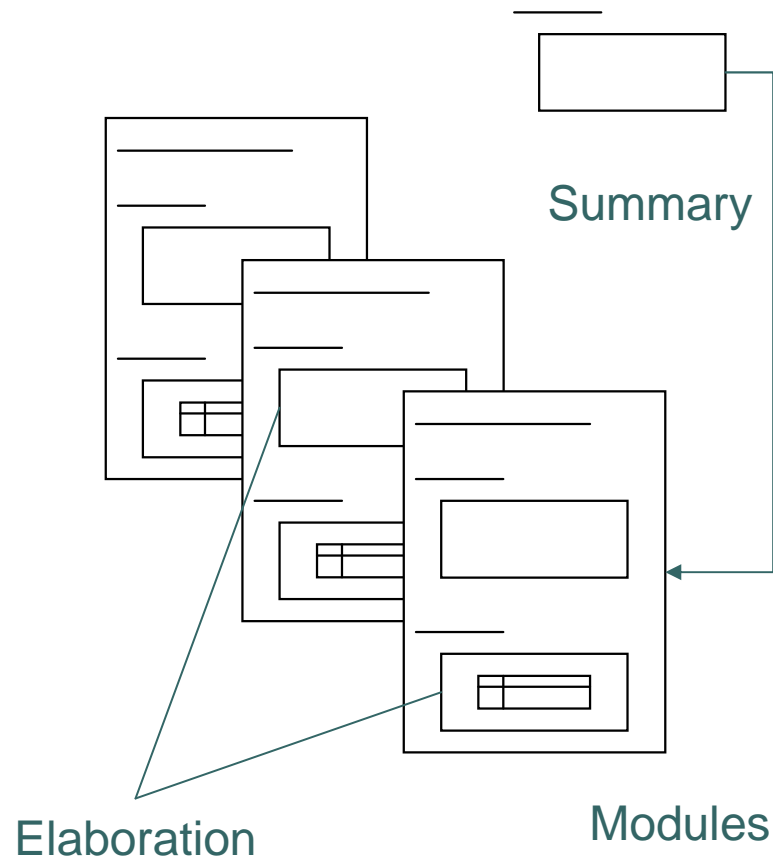


Some rhetorical relations

- Elaboration
- Preparation
- Background
- Restatement
- Summary
- Enablement
- Motivation

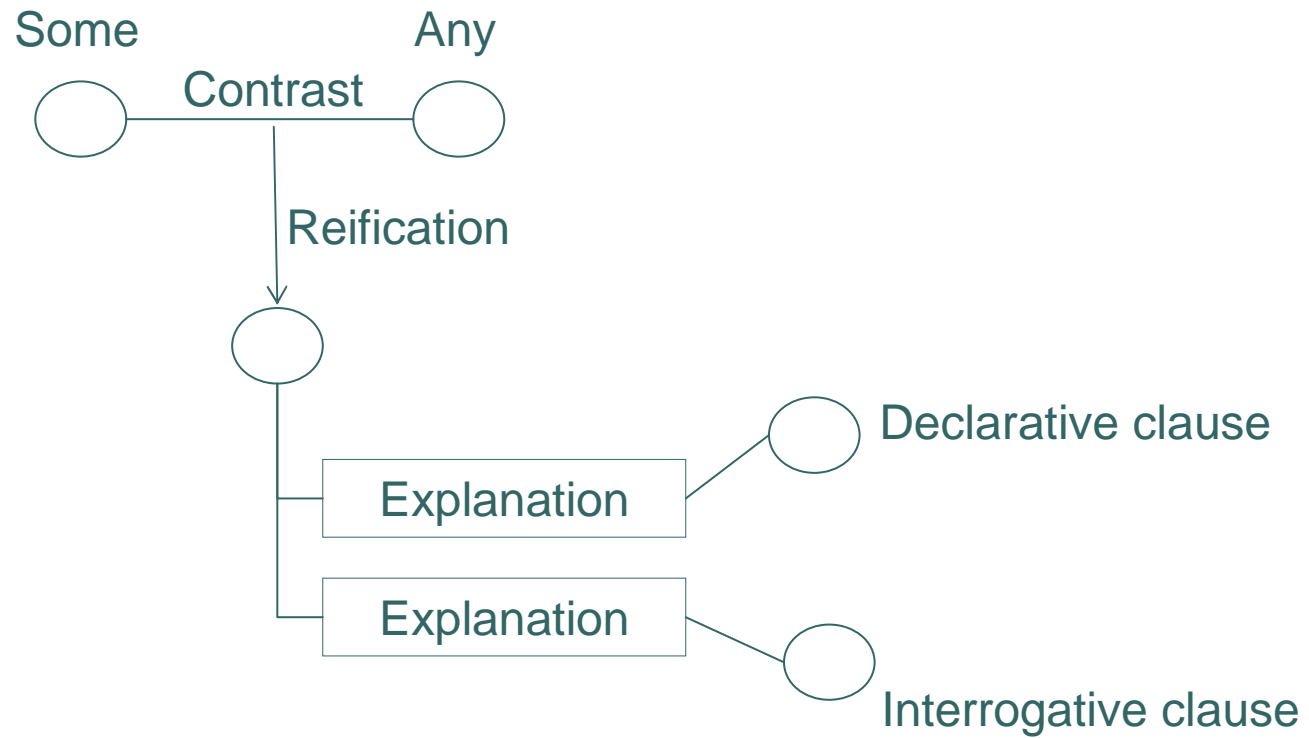


Communicative structures I



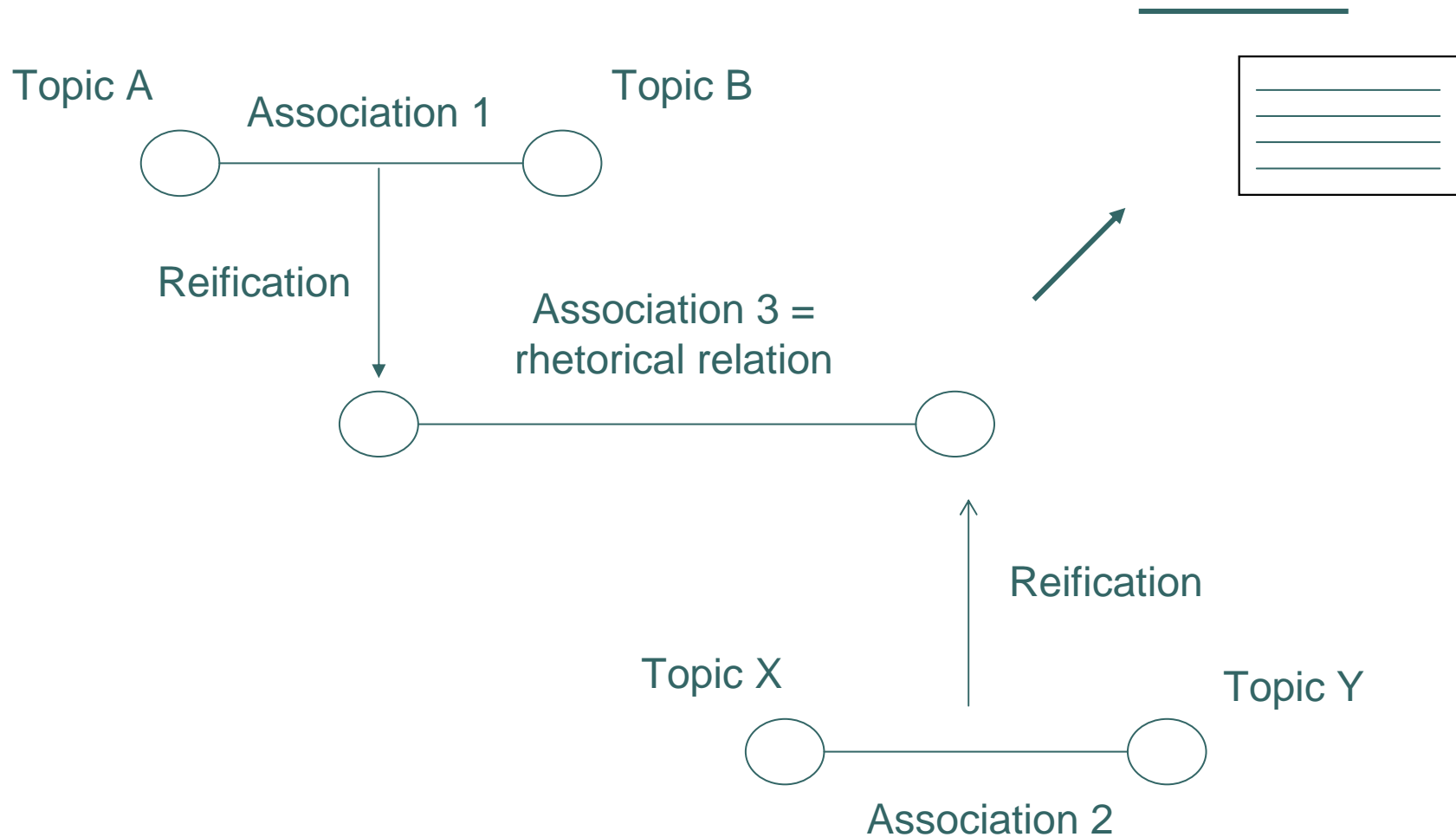


Communicative structures II





Communicative structures III





Rounding off ...

- From communication to learning
- The relation to Polyscopic Topic Maps
- The need for:
 - Tools
 - Open repositories

Thank you!