

# “www.pensive.eu/uid/0203”

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“[www.pensive.eu/uid/0203](http://www.pensive.eu/uid/0203)”

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‘Oh, that’s the name of the presentation, is it?’ Alice said, trying to feel interested at 9 o’clock on a Friday morning.

‘No, you don’t understand,’ the Knight said, looking a little vexed. That’s what the name is **called**. The name really *is* “Sex, context and topic maps – three things you can never get when you want”

‘Then I ought to have said “That’s what the presentation is called”? Alice corrected herself.

‘No you oughtn’t: that’s quite another thing! The **presentation** is called...

# Alice and Pooh, and Topic Maps too...

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But that's only what it's ***called***, you know!

'Well, what ***is*** the presentation, then?' said Alice, who was by this time completely bewildered.

'I was coming to that,' the Knight said.

'The presentation really is...



# Keeping it all in context

## Context and large-scale Information Sharing with Topic Maps

**Peter F Brown**

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# What was that all about?

- ▶ Take some random slides
  - ▶ Take them “out of context”
  - ▶ Then try to work out where they came from... \*\*
- ▶ We all use different cues to recall things
  - ▶ Problem is: We don’t always know what those cues might be
- ▶ Company project to manage “information assets”:
  - ▶ “chunked” to the most semantically useful size
  - ▶ +ve: can use each asset individually
  - ▶ -ve: lose context of where each chunk is created, consulted, referred to, used...

\*\* They are actually slides adapted from my closing keynote at TMRA 2007 in Leipzig, Germany

# Some context ☺

- ▶ Pensive “Think-in”, Vienna 2007
- ▶ Looked at 2 main concerns:
  - ▶ Managing context
  - ▶ Large-scale information sharing
- ▶ (How) can we manage this in Topic Maps?



# What is context?

- ▶ “I have no idea, but I’ll know one when I see one”
- ▶ A major (scientific) concern is whether context is subjective or objective
  - ▶ Looking at it as subjective:
    - ▶ It is the “private experience of meaning” of some “thing”...
    - ▶ and so, entirely personal
  - ▶ But we refer to “context” more commonly when we attempt to recreate a situation in which that experience took place:

# Our favourite semiotician

“When you are a Bear of Very Little Brain, and you Think of Things, you find sometimes that a Thing which seemed very Thingish inside you is quite different when it gets out into the open and has other people looking at it”





# Managing Context

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- ▶ Why should we bother?
- ▶ Simply trying to remember why one wanted to remember something - “I bookmarked it, but why?...”
- ▶ Finding back the “raison d’être” for some action
- ▶ A “way back when machine” – what exactly was going on “around” a particular subject at a particular moment

# Managing Context

- ▶ All require some attempt to recreate a setting “outside the skull of any reasoning individual”:
  - ▶ either to trigger and call up a “mental model” of a previous context (“subjective”)
  - ▶ or to “share some understanding” of a situation (“objective”)
- ▶ Are they both the same?
  - ▶ The context must surely trigger a similar mental model (or as close as possible) for another person
- ▶ Danger of “shallow informationalism”
  - ▶ Context cannot be reduced to a few elements of data, however well intentioned

# Representing context

- ▶ A greater proportion of our interactions with the world are via digital user agents
  - ▶ chances are increasing that we can capture context more and more accurately (“Vantage Point” again\*\*)
- ▶ Topic Maps provides the “scope” construct:
  - ▶ “represent the context within which a statement is valid”
  - ▶ a “bag” of topics that together represent the “setting” of a particular statement
  - ▶ scope can be represented also as a topic, but which does raise the spectre of recursion

\*\*Context: Monday’s “thing” that had no versions, see [www.pensive.eu/uid/0217](http://www.pensive.eu/uid/0217)



# Questions raised

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- ▶ We can reify and navigate a Topic Map by topic, association or role, but are there situations where it would make sense to navigate by context?
- ▶ Are TM associations more adaptable and better suited to represent context?
- ▶ What topics are relevant to a particular context?
  - ▶ Is it knowable? (At least, in advance. “Hindsight always offers 20/20 Vision”)
  - ▶ Is it more than data? (Vinegar as metadata, for example\*\*)
  - ▶ Can it ever be complete?



# Problems and responses

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- ▶ URLs dereferencing dynamically generated content:
  - ▶ the scope bundle contains the wrong things
- ▶ Re-examine Situation Theory?
  - ▶ Devlin's "infons"
  - ▶ could they be expressed using TM?





# Large-scale information sharing

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- ▶ If information is well managed, the “information territory” will have reasonably well-defined edges
  - ▶ Sharing requires nodes at the boundary edges of one territory to permit traversal to similar nodes in another
  - ▶ Contrast:
    - ▶ “information management” environments, that aim to promote an organization’s own strategic goals, and
    - ▶ “information sharing” environments that extend beyond organizational boundaries
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# Problems and responses

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- ▶ Most Topic Maps implementations are “proprietary” systems running under a centralized model
  - ▶ Need to make XTM screen-scraping possible, as a minimum
- ▶ The Topic Map merge construct is too centripetal
  - ▶ share characteristics of hypermedia systems from the 1980s
  - ▶ learn from the blogosphere – create and syndicate
  - ▶ “topic merge by ID” should become a connector between separate maps, not an excuse to merge and ingest whole maps



# Problems and Responses

## ▶ Topic Map Fragments

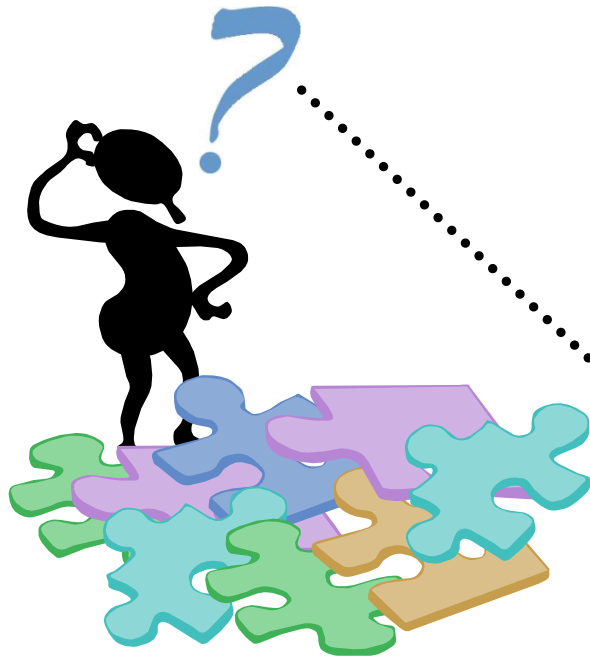
- ▶ encouraging work coming out of EU projects
- ▶ combination of:
  - ▶ ATOM “push” for notification and syndication, and
  - ▶ RESTful “pull” for “topic merge on demand”

## ▶ Topic Maps as “semantic networks”

- ▶ networks of networks must be possible
- ▶ any topic must be recognizable as a network node

# Keeping it all in context

## Context and large-scale Information Sharing with Topic Maps



**Warning:** The contents of these slides are context-dependent.

Different expressions of this work will be available after the conference via:

[www.pensive.eu/uid/0203](http://www.pensive.eu/uid/0203)

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...because “Artificial Intelligence” is neither