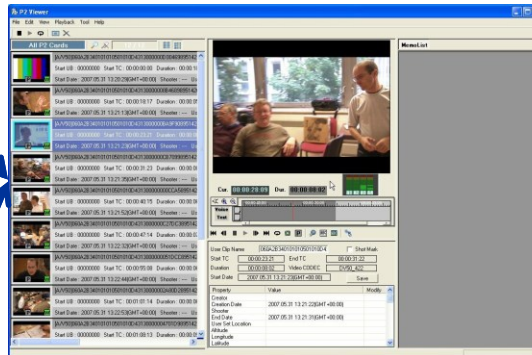


The semantic Grail : robust and meaningful labels, intelligible to man and machine

Bruno Bachimont

New usages



Added value of semantics

To handle the many assets coming from delinearized audiovisual contents, that should be autodescriptive and autonomous to be used;

To enable interoperability between tools used in AV production

To enable production that can be based on content creation or reuse.

Adding semantics...

Semantics: annotating non textual content by words more or less controlled.



→ **DOG**

But...

It's enough for human beings:

The unreasonable efficiency of language

But, for the machine ?

What you say to your dog...

**“go out of this trash!
do you hear, Toby !?!
go out of this trash!”**



What your dog understands...

« Bla bla bla bla bla bla bla !

Bla bla bla **Toby** !?!

Bla bla bla bla bla bla bla ! »



What you write on your computer...

« I wrote an article about 'Audiovisual needs semantics' »



What your computer understands

« bla bla bla bla bla bla bla bla '



Semantics for machines



Understanding for human beings:
natural language is semantics

Meaning ?

DOG

Meaning ?

<biology:naturalcategory: dog>

Meaning modelling:
ontologies, formal
semantics, etc., exploitable
by machines

Two issues

Adding semantics for human beings

Problem:

Associating contents (textual, non textual content) with labels;

Which labels ?

Coming for social tagging (the more, the merrier);

- **But semantic gap: tags far from computable exploitation.**

Coming from authority lists, thesaurus, ontologies;

- **A compromise: hard to interpret, but formally computable (at least regarding ontologies)**

Coming from automatic analysis

- **but semantic gap: algorithmic results far from human understanding**

Adding semantics for machines

Problem:

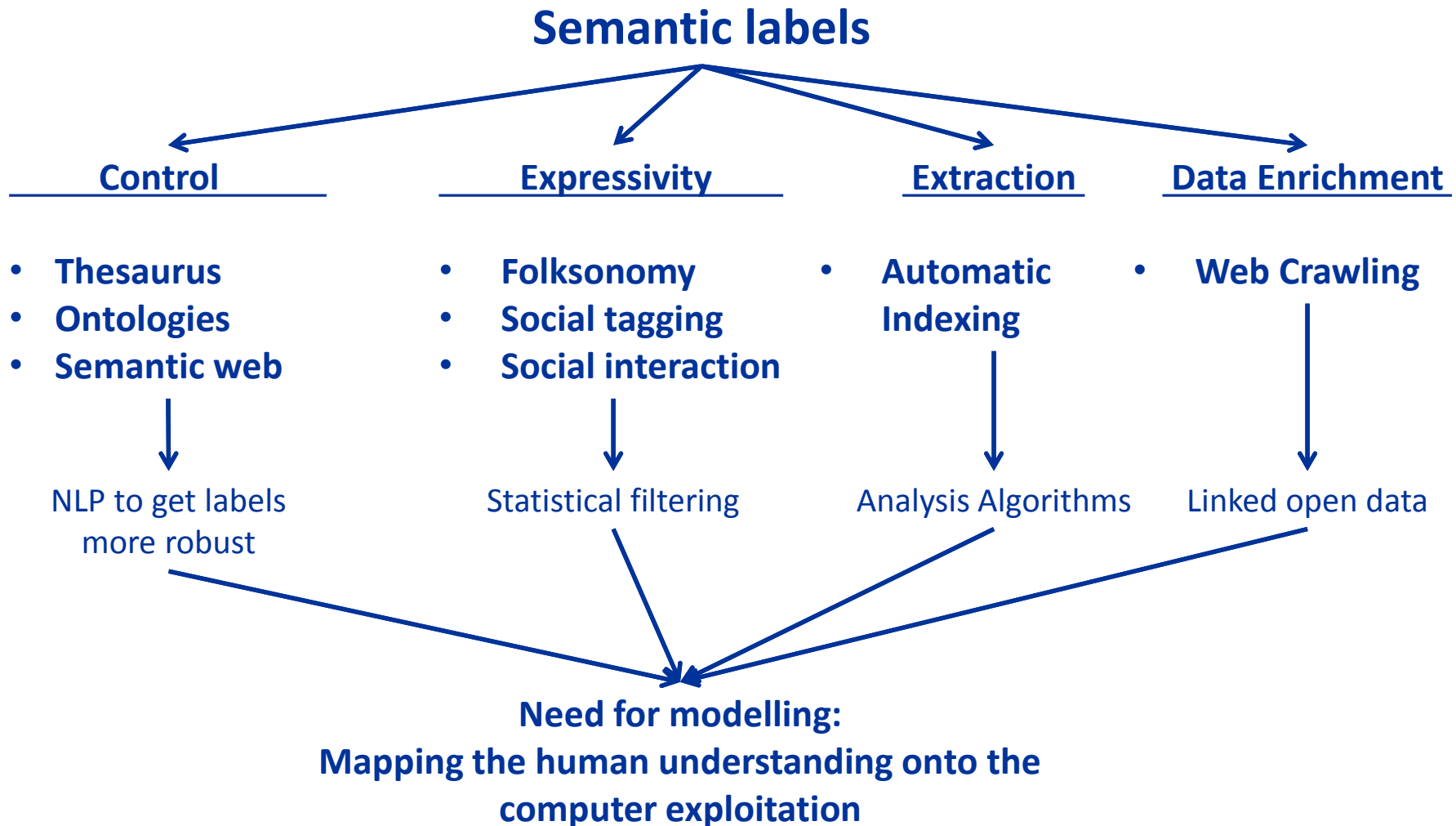
Providing with an operational and effective translation of content and associated labels : label is an instruction

Which labels:

Labels that are not simply strings or charsets but something computers can use.

- **Need for modelling to make the link between a label and an expected behaviour of the computer.**

Several strategies... none are the solution



As a conclusion

Such mappings can be defined locally, for some applications and usages

These mappings are necessary to ensure interoperability and intelligibility

GRAIL :

Robust and meaningful labels intelligible for human-being and machine

And now, ladies and gentlemen...

14:15 - 14:30: Gondwana: The link between the event and the broadcast information management (Steny Solitude – Perfect Memory)

14:30 - 15:30: Tools to bridge the semantic gaps: Authôt (Olivier Fraysse)-SeekioTech (Frédéric Beaugendre)-EarlyTracks (Patrick Watrin)-Fraunhofer (Uwe Kühhirt)

15:30 - 16:00: Embedding EBUCore metadata in MXF (Maarten Verwaest – Limecraft)

16:00 - 16:45: An approach to integrate hardware and software components based on FIMS (Guillaume Rachez – Perfect Memory)

16:45 - 17:00: Clipflo – mobile applications for artists to enable them to generate revenue from their art (Daniel Harris – Kendra)