Beyond Flatland?

What does semiotics add to information sciences?

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Contents

1. Shannon information; the technical level
2. The meaning and effectiveness levels and the need for semiotics
3. Different types of information and the KiF model
4. A case study in the long tail
1 **Technical level** (Shannon information)

2 **Meaning level**: messages (signs) refer to or are correlated according to *some system* with certain physical or conceptual entities. (Shannon)

3 **Effectiveness, Pragmatic level** (Weaver)

Peirce: A sign is something A (technical level), that stands in relation to something else B, (its object, meaning level) in such a way that it brings its interpretant C, (effectiveness level) in the same relation as it stands itself.
Knowledge in Formation

 Meaning, intention

 Object

 Actualization of meaning, intention

 Sign

 Interpretant sign

 INFORMATION SOURCE → TRANSMITTER → RECEIVER → DESTINATION

 MESSAGE → SIGNAL → RECEIVED SIGNAL → MESSAGE

 NOISE SOURCE
Knowledge in Formation

Peirce

X-frame: two variables
≈ Shannon

16 Boolean relations
In a dependency structure
≈ semiotics
The blue line represents that the interpretant is brought into relation with an object not directly, but mediated by the sign.

Knowledge in Formation

Logical gates

Moments in interpretation process

Response

Two variables

State, Effect

Logical: X-Frame

Semiotical: KiF

Moments in interpretation process

Response

normal / argument

dynamical / prop. - convention / symbol

immediate / rheme - index - rule / legisign

mental / iconical - physical / sinsign

Ss-A = [Ss-A-prev. unanalyzed multitude]
Sign definition
Ch. Peirce

Trikonic
G. Richmond

All individual scores plotted

Sign
First

Object
Second

Monad
First

Dyad
Second

Third
Interpretant

Third
Triad

social

informational
physical
Knowledge in Formation

Top Down

Bottom up
Exception handling

A top down case study

In the Netherlands 16,000 + pupils at home

Story telling, digital fieldwork

Research conducted with Top Innosense
# Problems at school? Tell your story

**Database label:** *Narrative*

**Vraag:** *Tell your story*

"Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua. Ut enim ad minim veniam, quis nostrud exercitation ullamco laboris nisi ut aliquip ex ea commodo consequat. Duis aute irure dolor in reprehenderit in voluptate velit esse cillum dolore eu fugiat nulla pariatur. Excepteur sint occaecat cupidatat non proident, sunt in culpa qui officia deserunt mollit anim id est laborum."

**Titel:** *Give a title*

**Keywords:** *Which key words do fit your story*
Hard metadata

- Age
- School type
- Is the absence recorded at community level?
- Duration of absence from school
- Role of story teller
- etc.

Soft metadata

- How did you experience what happened?

facts

experiences
Hard metadata

role of story teller
Perspectives according to KiF

School

Home

Class

1: Children in focus

Learning results

Result

2: Learning as a duty
Attendance inspection

TT

Child

School

Class

FF

TF

TT

TT

FF

TF

FT

FT

FF

Child

Parent(s)

Learning

3: Teacher as professional

Child

class
Knowledge in Formation

KiF procesmodel

Society = root process
Ronald Stamper
Knowledge in Formation
In which domain did the child experience problems?

- social
- informational
- physical
Knowledge in Formation

The school response can be characterized as:

A balanced approach

Only the child is in focus

Protocols must be upheld

Image of a baby and a school setting.
Knowledge in Formation

How do you characterize the Negotiation process?

Goal oriented

Cooperation

Conflict
Learning results

A score in state, which background?
1. Class process
2. Home process
What does semiotics add to information sciences?

Access to the meaning and effectiveness levels by the use of sign aspects in a dependency structure!