IBCS Annual Conference, June 8, 2018
One Moorgate Place, London

From Roman Speakers to IBCS Pragmatics

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Mirror, mirror
On the wall,
Who has the nicest slides at all

From Roman Speakers to IBCS Pragmatics

The Basic Problem: How to do Things with Information?

The Roman Speakers Wisdom: How to be understood?

Data ≠ Information ≠ Knowledge ≠ Action

It's not enough to deliver information, you must communicate it

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Three Pillars of Semiotics describe different levels how to form and use a message

Signs are elements of any message (= content + intention)

Syntax	Relations between the signs
Logics	Rules how to use combination of signs
Semantics	Meaning of signs
Convention	Rules to define the meaning of signs and combinations thereof
Pragmatics	The intended effect of communicated signs and combinations thereof
Reality	Rules of using signs to produce the intended effects

How to do things with information? The intended effect of a message is decisive …

Interactive Dashboards

… to bring all relevant people to the same state of knowledge

Reports

… to convince with arguments (assertions, proofs, demonstrations)

… to support decisions

… to warn

… to promise

Presentations

… to recommend

The decisive factor is not what the author of a message means, but whether and how the information has been understood by the recipients.

The message of our information product should be the answer to the question posed by the interested audience.

You cannot understand the answer if you do not know the question.

Therefore the question must be communicated, too.

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The Rules of Rhetorics could help IBCS

How to convince the "person in power" (i.e. the judge or decider) in a concrete situation to get an appropriate decision?

It is not enough only to deliver information.

General Rules in Roman Rhetorics:

Good preparation SAY
Structuring (story line) STRUCTURE
Clear Intention SAY + SIMPLIFY
Good Arguments CONDENSE + CHECK
Good Performance EXPRESS + CONDENSE + UNIFY

The Rules of Rhetorics could help IBCS

Moreover: Pragmatic Rules

Select suitable means
novelty & confirmation

Select Form:
Deductive, inductive, appellative
(message type)

Communicate about your
communication (explain problem and
question) and about the context

To deliver inform is not enough!

Why?

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Available information (Files, Books, Charts, Interactive Means) is not yet knowledge!

From Data to Decision

| Result | 1 | 5 | 2 | 3 | 3 | 4 | 5 | 6 | 2 | 4 | 1 | 6 | 2 | 5 | 3 | 2 | 1 | 6 | 3 | 5 | 2 | 4 |
| Throw | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 |

Data

Analytics
calculation
visualization

throwing

111 22222 3333 444 5555 666

Are the
dices
biased?

Zahl 6   3
Zahl 5
Zahl 4   3
Zahl 3   4
Zahl 2   5
Zahl 1   3

Information

Decision
A More Throws
B Remove the dice,
may be fake

Knowledge incl. Pre-Knowledge
A The data are not sufficient to decide
B Number 2 is really biased

From Data to Decision

It's the difference
That makes the difference

George Bateson

Information is only something that can be understood.

Only Information, that has been understood by an individual, becomes knowledge.

Knowledge consists on pre-knowledge and understood information, which has been integrated within the already existing knowledge.

From Data to Decision

Slide 1

Expand IBCS to Pragmatics to enable the understanding of information

- Other (Big) Data
- Other Interests
- Measurement — Data Collection
- Data
- Analytics — Calculation, Visualization
- available from E.
- Problems — Interests, Questions
- Subject Area — Enterprize
- Information Products — Texts, Charts, Tables
- Acts
- **Pragmatics**
- Decision — Cognitive Processes
- Knowledge — what, why, how
- Understanding — Cognitive Processes
- Pre-existing Knowledge
- Other Interests
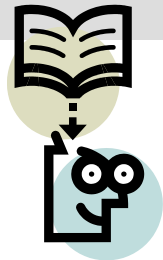
Slide 2

From Roman Speakers to IBCS Pragmatics

The Basic Problem: How to do Things with Information?
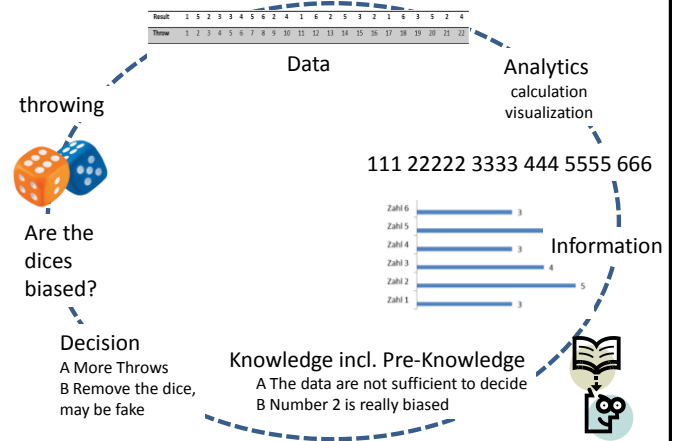
The Roman Speakers Wisdom: How to be understood?

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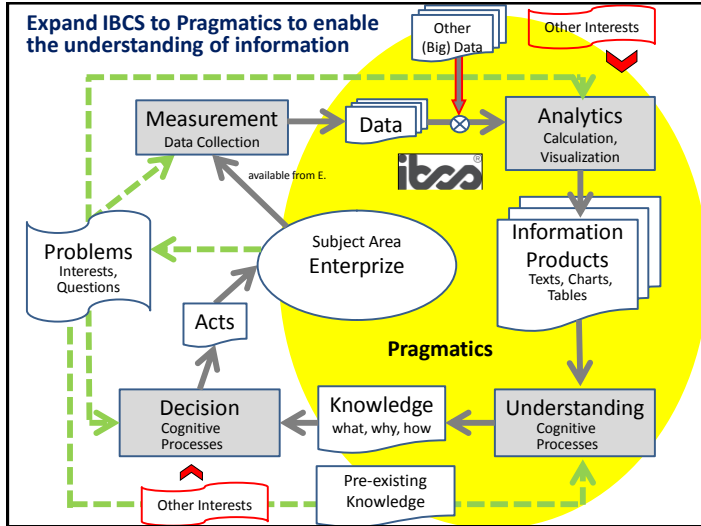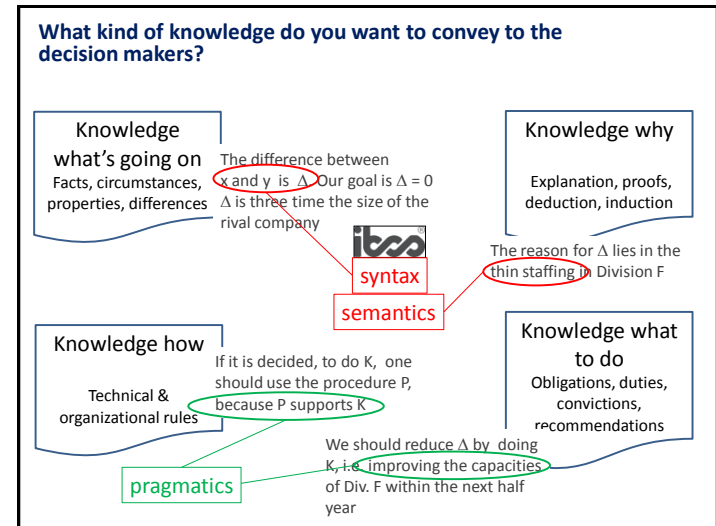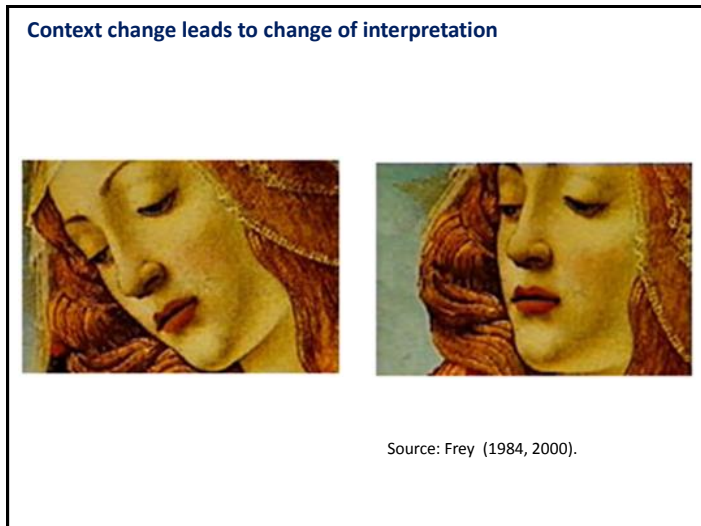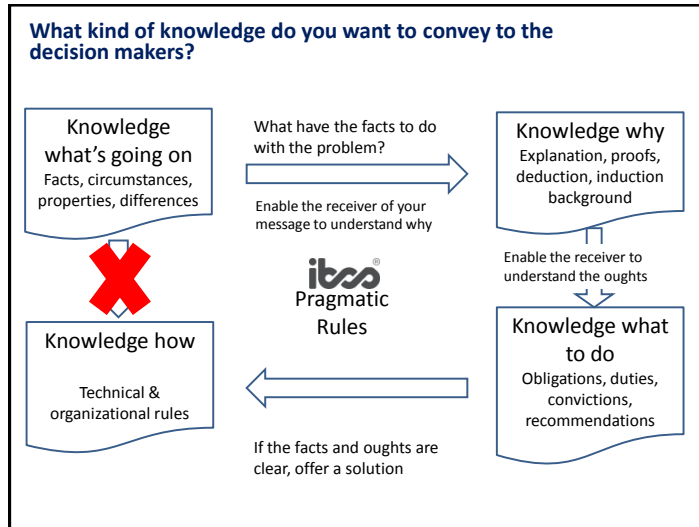**It's not enough to deliver information, you must communicate it**

Slide 3

Context change leads to change of interpretation

Source: Frey (1984, 2000).

Slide 4

What kind of knowledge do you want to convey to the decision makers?

Knowledge what's going on — Facts, circumstances, properties, differences

The difference between x and y is Δ. Our goal is Δ = 0. Δ is three time the size of the rival company

syntax
semantics

Knowledge why — Explanation, proofs, deduction, induction

The reason for Δ lies in the thin staffing in Division F

Knowledge how — Technical & organizational rules

If it is decided, to do K, one should use the procedure P, because P supports K

Knowledge what to do — Obligations, duties, convictions, recommendations

We should reduce Δ by doing K, i.e. improving the capacities of Div. F within the next half year

pragmatics

5

What kind of knowledge do you want to convey to the decision makers?

| Knowledge what's going on Facts, circumstances, properties, differences | What have the facts to do with the problem? Enable the receiver of your message to understand why | Knowledge why Explanation, proofs, deduction, induction background |

❌

Pragmatic Rules

Enable the receiver to understand the oughts

| Knowledge how Technical & organizational rules | If the facts and oughts are clear, offer a solution | Knowledge what to do Obligations, duties, convictions, recommendations |

It is not enough, to show only charts, dashboards etc.

To communicate about the options of interpretation of your message requires trust and a little bit of courage.

You must say something about the mesh size of the fisher net to explain the statistics of caught fishes.

Enable the controller to have a nontrivial message and encourage him to communicate it.