

Factographic base for the complex collaborative information resources reorganization

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Contents

- *Quality and standards problem*
- *Paradigm shift support*
- *OO and SOA vs factographic*
- *Large multiuser catalogue as a first germ*
- *Current state*

“Dubito, ergo cogito, ergo sum”

— René Descartes (1644)

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Is it reasonable?



IMPROPER

FULLY COMPIANT

Official requirements "СанПиН 2.2.2/2.4.1340-03"

График функции

СТАТИСТИКА

Тест 2

42:31

ИНСТРУКЦИЯ

1

2

3

4

4. На промежутке $[-1; 0]$ функция не меняет знака. [Прослушать](#).

Да Нет

5. Сколько корней имеет уравнение $f(x) = 1$ на промежутке $[-1; 0]$?
[Прослушать](#).

– впишите –

6. На промежутке $[-1; 0]$ выполняется неравенство $|f(x)| \leq 1$.
[Прослушать](#).

Да Нет

Сбросить

Подтвердить ответ

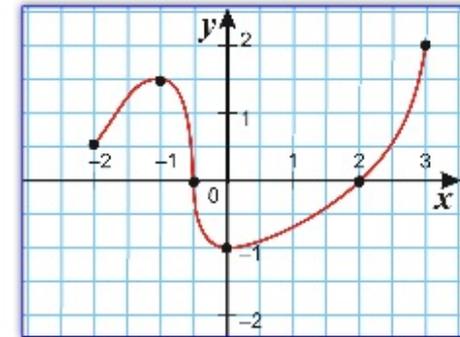


График функции

СТАТИСТИКА

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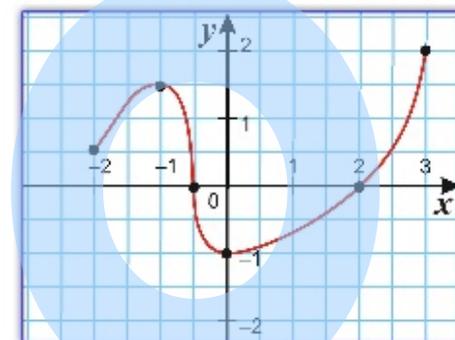
— впишите —

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[Прослушать](#).

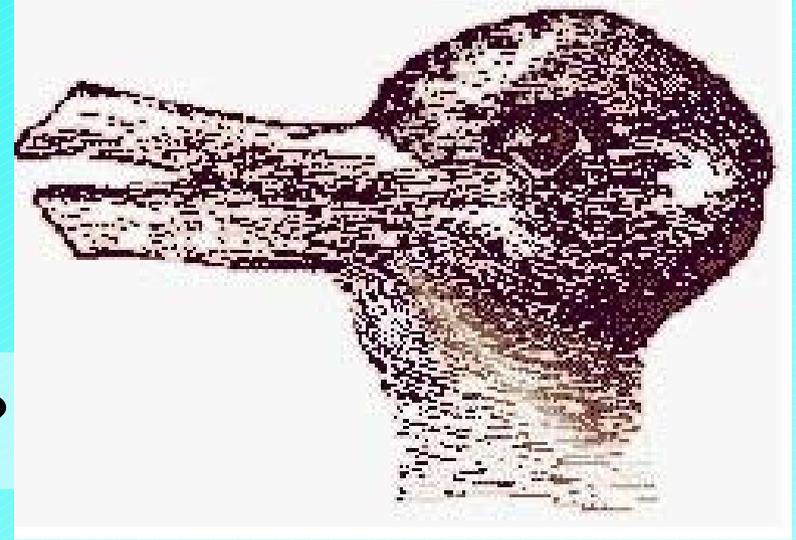
Да Нет

Сбросить

Подтвердить ответ



Paradigm shift



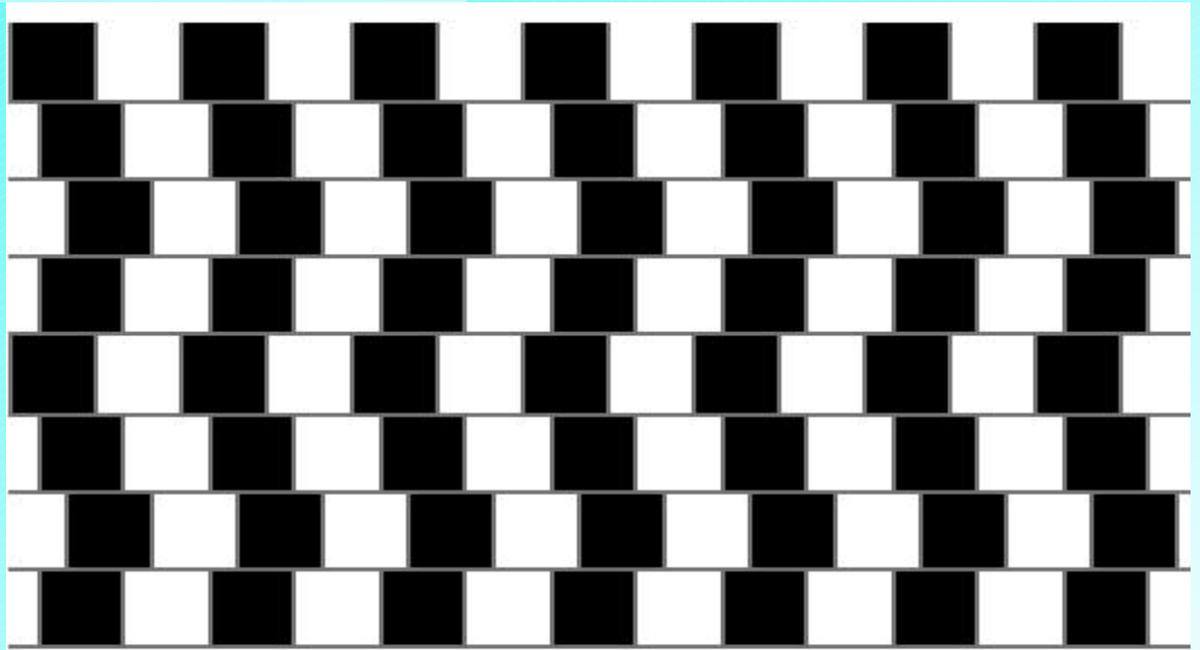
Duck or Rabbit?



Young lady or old?

This image is lifted from the book, "7 Habits of Highly Effective People" written by Stephen Covey.

Parallel Lines?



*“A paradigm is what members
of a scientific community,
and they alone, share”*

— Thomas Samuel Kuhn (1962)

People have *different* experience, character properties, *vision*.
They *change in a time*.

Nobody always knows better than all others.

High level professionals are also people.

⇒ No proper standard (law, ontology, taxonomy, catalogue, ...) can be born and live without the

widely open constructive and free collaboration.

⇒ We need appropriate software to support **it**.

*“In science and philosophy alike,
an exclusive preoccupation
with logical systematicity
has been destructive of both
historical understanding
and rational criticism.”*

— Stephen Toulmine (1972)

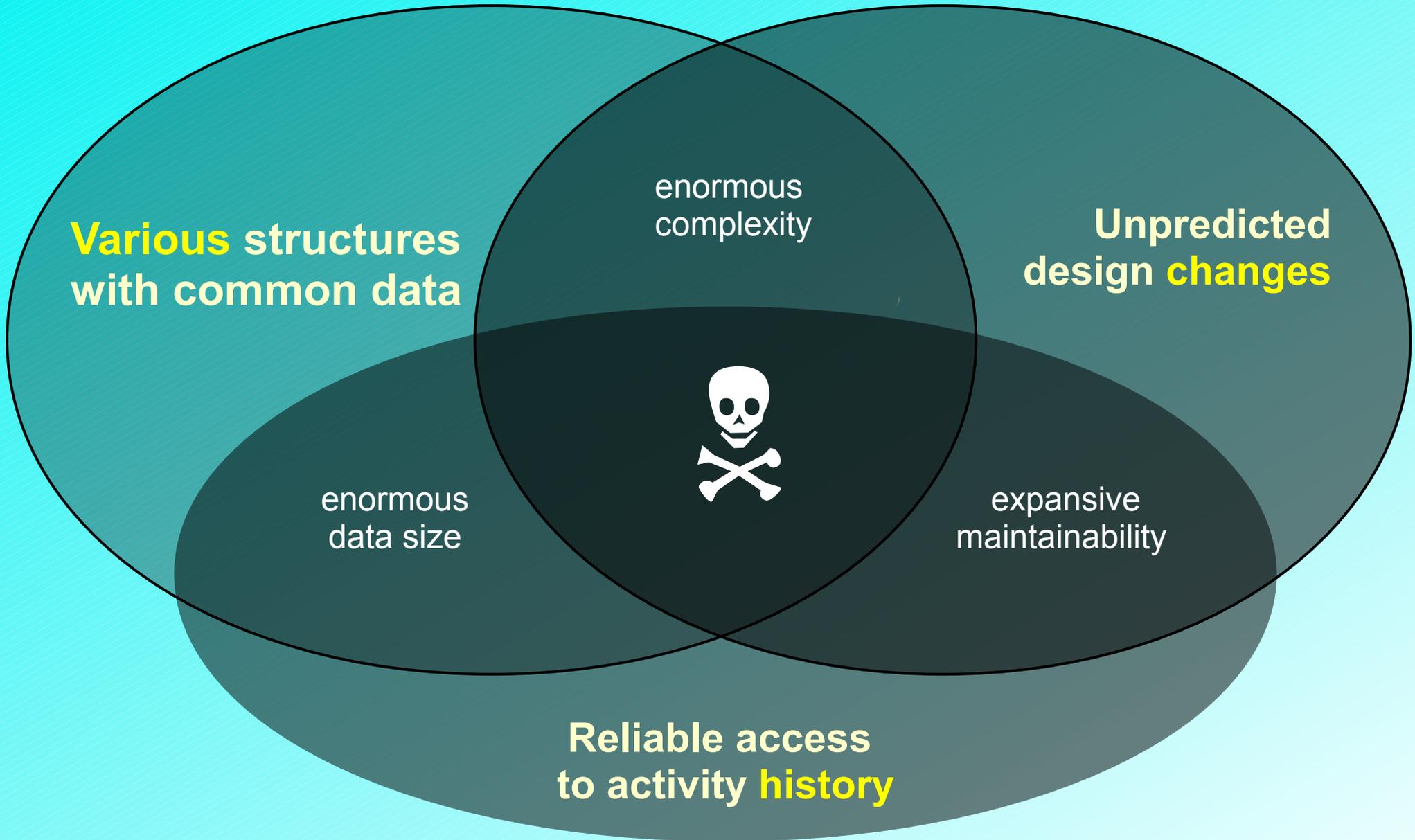
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Key software requirements:

- ★ **Paradigm shift support:**
 - **Unpredictable design changes,**
 - **Reliable access to activity history,**
 - **Various structures with common data;**
- ★ **User-friendly interface;**
- ★ **Scalability;**

Paradigm shift support



is enormously expansive in standards based systems

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SOA and OO

Factographic

General Priorities

Product development

Evolutionary maintenance

Response

Calculated

Visualized

User input

Executed or rejected

Saved as is

Execution

Immediate

Lazy

History access

Possible

Guaranteed

Coupling

Message passing

Non-concurrently shared memory

Resource usage

Controlled

Prioritized

Application coding priority

Logically clean, proved

Clear, opaque

Code and execution errors

Strictly prevented

Non-critical and correctable

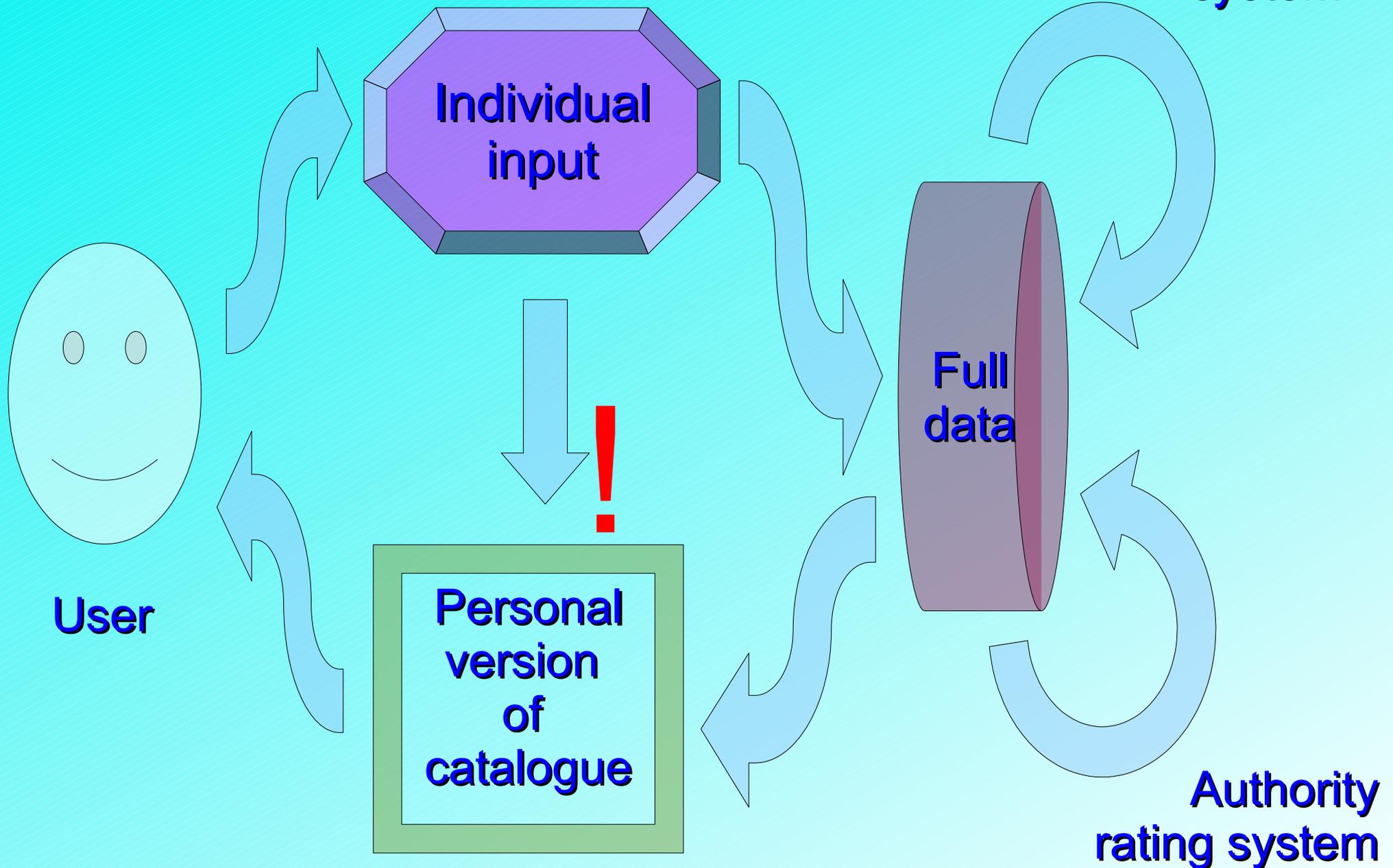
*“A theory is scientific
only in so far as it is falsifiable,
and should be given up
as soon as it is falsified”*

— Sir Karl Raimund Popper (1935)

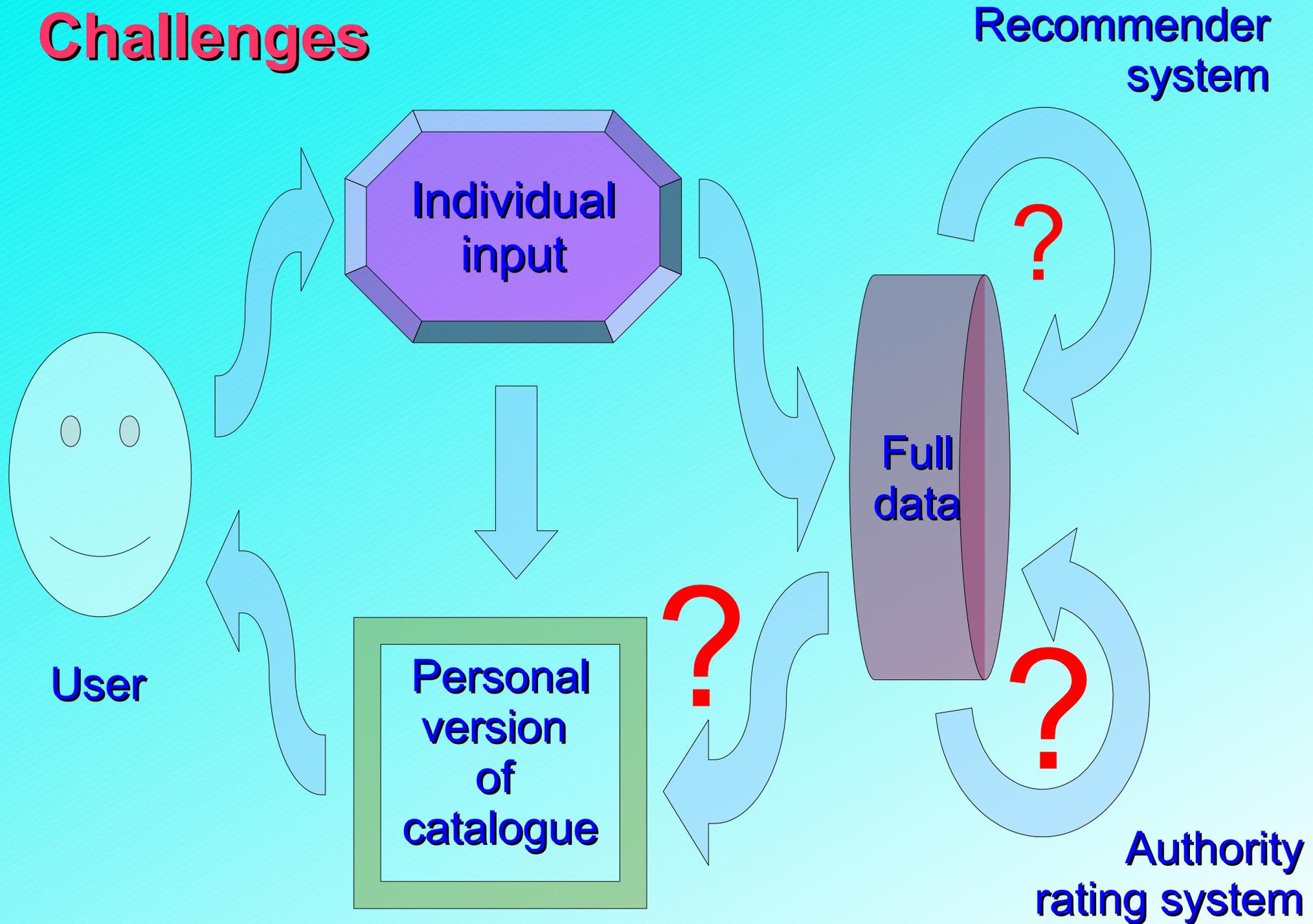
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Collaborative catalogue



Challenges



*"An extraordinary claim
requires extraordinary proof"*

— *Marcello Truzzi* (1978)

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- **Current state** – *see in proceedings*