# How to understand a user or why users hide requirements

Customer-oriented technical systems design

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## User dumbness

Why doesn't a user want to share his thoughts and complains

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# Learned helplessness

### Group 1

## Find the key combination

• Mute the unpleasant sound

#### Group 2

Find the key combination

• Mute the unpleasant sound

## Group 3

## Wait until the experiment begins

#### Touch the box

Sound on !!!!

• To switch off - sidewall

#### Touch the box

Sound on!!!!

• To switch off - sidewall

#### Touch the box

- Sound on!!!!
- To switch off sidewall

Attempts to mute the sound Waiting for experiment to end Attempts to mute the sound

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## Computer anxiety

Stress:

- Cognitive
- Affective
- Behavioral



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## Computer anxiety

 Narrowing of attention Regression of skills Self-restraint queries Forced interaction Obsessive behaviour - Guilt Secrecy behaviour

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# Computer carelessness

Three lives: low price for an error
No reflection in behaviour
Primitivity of (dichotomy) conclusions
No motivation for change
No protocol skills

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## Causal attribution



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## Causal attribution

#### False-consensus effect

I know how to I create styles in to Word(47 %) i

Doesn't

know

25 %

I don't know how to create styles in Word(53 %)

Knows 75 % Knows 25 % Doesn't know 75%

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# The implication of knowledge

Explicit	Implicit
Declarative	Procedural
Directed	Involuntary
Controlled	Automatic
Analytical	Intuitive
Databases	Applications

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## User failure

Why user talks about wrong problem or talks wrong about it

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Lost in translations (communication) • Technical language • Of the user • Of the software engineer • Terminology from everyday language

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## Who works for who?

- Always blame the one who is smarter in a failure
- For communication quality always responsible the one who needs it more

Don't know what they want...
Why waist my time, he doesn't understand anyway!

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## Who works for who

Professionalism
self-respect
Professional
solves client's problems
reduces costs for a client
Profession: sharing skills for money

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## Feedback

## **Illusions of communication:**

- If client is silent he has nothing to say.
- If client has no questions he understood everything.
- If I heard the client I understood him.
- If the answer is written mistake in the interpretation is impossible

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How the Project Leader understood it



How the Analyst designed it



How the Programmer wrote it



How the Business Consultant described it











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## Feedback

#### User is not cooperating:

- when developer refuses to understand his terminology,
- when he doesn't understand the question in technical language
- instead of looking for errors, they trying to find a guilty one,
- developer demonstrates his superiority
- developer acts like he has a more important job
- user has to spend to much time,
- customer's words are misinterpreted.

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# Methods of qualitative analysis

How to get a fundamentally new information from the user

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# Methods of qualitative analysis

## Nomothetic

Comparison of objects based on numeric comparison..

## Ideography

 Revealing identity of objects, through the disclosure of qualitative features

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## Types of research

#### Phenomenological study

- identification of what's new
- determination of limits
- defying characteristics and rules

#### Basic research

- identification of the structure
- determining the causes and links
- generation of hypotheses

#### Empirical study

- identifying links
- identify areas
- testing hypotheses

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## Questionnaire

Clarification of what already known Checking distribution Features Written form Closed questions Formality of filling Fast

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## **Opinion poll**

- Identifying the significant
  Checking the obvious
  Features
  - Verbal form
  - Closed questions
  - Reliable data
  - Time-consuming

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## Psychological testing

- clarification of the required information
- testing by practice

## Features

- Working with the prototype
- Actual performance data
- Require external tasks
- Time-consuming
- Identifies hidden requirements

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## Observation

Identifies the facts
Checks repeatability

## Features

- Fixates the actual execution
- Sets parameters of control
- Influence of operational factors
- Slow
- Identifies quality requirements

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#### Interview

identification of unknown completeness check Features Verbal answers Open questions Communicational difficulties Identification of values Finding new requests

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