Design of User Interfaces

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What is User-System Interaction about?

Goal: 
Actual Performance
=>
Desired Performance

The Basic Triangle: T-U-S

- user-oriented requirement analysis
  - know the user
  - describe the context of use
  - analyze the user’s tasks
  - decide for user-system function allocation
Interface Design or Interaction Design?

Challenges of USI research
User-Product Relation

DESIGNER

implemented functions

perceivable user interface forms

intended semantic

DMM := designer’s mental model

USER

perceived semantic

UMM := user’s mental model

How to relate Function and Form, so that DMM == UMM ?
Two General Design Strategies

1. Push
2. Pull

From Problem to Solution
or the other way round?

PULL

Set of possible technical solutions

PUSH

Set of real customer requirements

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How to maximize the match?

Without user-centered design

With user-centered design

Set of real customer requirements

Set of possible technical solutions