

It probably won a prize

- Aim
 - To be able to analyse and compare the designer and the user models of devices

**Technological aspects of
Donald Norman:
The Design of Everyday Things**
by
Jens Kaasbøll

1

Qualities of devices

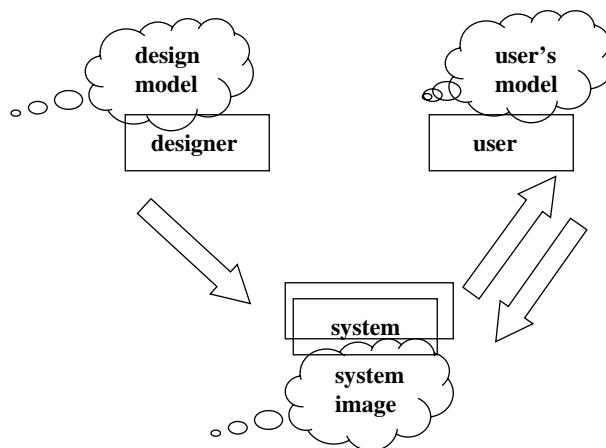
- Aesthetic
 - Pleasing to look at and sense in general
- Technologic
 - Adhering to accepted principles of good technical solutions
 - Simple manufacturing
- Learnability
 - Promotes quick learning
- Usability
 - Causing desirable effects
- Durability
 - Tolerates long term intended use
- Robustness
 - Tolerates improper use
- Safety
 - Not causing undesirable effects

2



3

Conceptual models



4

When simple things need instruction, it is a certain sign of poor design

- Visibility
 - The shape of the device signals its proper use
 - What about blind people?
- Mapping
 - Immediately understandable relation between symbols and operation
 - Iconic symbols
 - Visual similarity
 - Conventional symbols
 - Learned system of representation
 - Arbitrary letters and shapes
- Feedback
 - The device signals the result of the operation

5

Mappings should be unambiguous



6

Changing gears

Describe the design model and the user model

7



Other designs



8

What are the consequences of the choice of

	Material	Structure	Mechanics
Aesthetic			
Technologic			
Learnability			
Usability			
Durability			
Robustness			
Safety			

9



Faucet
1



10



Faucet
2

11



Faucet
3

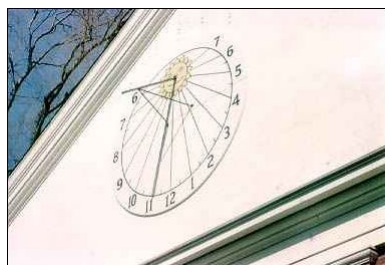
12



Faucet
4

13

Mappings (clockwise)



14

Preventing the user from making mistakes

- Lockin
 - Keeping a process going
 - Preventing premature closure
- Lockout
 - Prevents an event from occurring

15



Interlock Forcing a sequence

- Open cover
- Unscrew lid
- Insert nozzle in tank opening
- Hang up nozzle
- Insert lid
- Close cover
- Start engine and drive away

- No interlock**
- Unscrew lid
 - Put tank lid on car roof
 - Insert nozzle in tank opening
 - Hang up nozzle
 - Close cover
 - Start engine and drive away

16

How does an ATM guard against user errors?

