Designing standards, principles and patterns

Topics: • usability and user Experience goals
- Design standards
- Design principles & guidelines
- Desing patterns

Aim: Design interactive product

Goals • Meet functionality
• usable
• great user experience.

usability: effective
efficiency
safety
good utility
Easy to learn.
Easy to Remember

UX Goals: Satisfying / enjoyable / engaging / pleasurable / Not boring ...

Design standards — ISO 9241 Ergonomics 人类工程学
- Set by (inter)national bodies
- More common on hardware

Accessability: accessable by as many as possible
- Web. Accessibility: perceivable. operable Understandable. Robost

Principles / GoldenRules / Usability Heuristics ⇐ To design. products acheive goals / standards
Are: • General principle
• thumb of nails (经验)
• vague on detail., high level knowledge

Norman. 6. design principles
- visibility • Information that Matters clearly displayed
  • Not all need to displayed
- feedback. • effect of actions
  • informative and timely
  (eg) time remaining
  selected items
- Affordance 自解释性 • perceived & actual properties
  ⇒ clues of how to use
  • Do: Design sth. w/ attributes provide clue
  • Do Not ~ incorrect affordance.
- Mapping • Controls ⇔ effects
  • clear mapping
  • user-feel controlled
- Consistent • Similar operation → ~ tasks
  - follow rules
  - easier to learn / memorise
  - fewer mistakes
- Constraints • limit actions, prevent incorrect selection
  - technical / physical

Shneiderman 8 Golden Rules

- Strive for consistency
- Cater to universal usability
- Informative feedback
- Design Dialogue to yield closure
  告訴用戶操作有沒有完

> Sequences of actions should be organized into groups with a beginning, middle and end. Informative feedback at the completion of a group of actions gives operators the satisfaction of accomplishment, a sense of relief, a signal to drop contingency plans from their minds, and an indicator to prepare for the next group of actions. 備用計劃?

- Make error as impossible as possible
  example: Insert date vs select calendar

- Easy reversal of actions
  - errors can be undone.
  ⇒ Relief Anxiety
  - backtrack whatever they are doing

- Support internal locus of control
  - Never feel "How did I get here".
  - Navigations & task action clear

- Reduce short-term memory load.
  ⇒ Remember fewer information

Nielson 10 Heuristi

1. System status visible
2. Match btw. system and real world.
3. User control and freedom.
   - explore., freedom to navigate, perform
   - undo accidental actions
   e.g. ⇒ Discard? Discard./Keep

4. Error prevention
   - validate user type as they insert
   Rather than submit
5. Recognition Rather than Recall.
   e.g. suggesting what you type

6. flexibility and efficiency
   e.g. advance settings

7. Consistency & standards
8. Asthetic and minimalist design.
9. Recover from errors → recognize. diagnose. recover.
10. Help / documentation → Empty state, 404 pages shown.
    FAQ. Documents

Design depends on · user's

- skills and knowledge
- education and training
- Roles, responsibilities
- Motivation · goals
- Individual attibuts: physical abilities
  age ...
- background. personal ability

Principles	vs.	Guidelines
• high level		• Specific ·
• thumb of nail		• Concrete recommendation

Design patterns

- Reuse what works
- provide "chance" to collaborate.
- Communicate design problem & solution
- Capture essense of problem handling