Chapter 22

"Envisioning Design"

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Overview

- Definition of Envisioning Design

- Three types of Envisioning Design
    - **Holistic Design**
    - **Sketching and Metaphor**
    - **Scenarios, Storyboards, and Snapshots**

Envisioning Design

- This chapter discusses ways of conceptualizing the form of a design at a very early stage in terms that users can understand.

- **Envisioning Design** - bringing abstract ideas to life, as well as designing functionality.

Holistic Design

- **Holistic** approach views the design as a whole.
- Decisions about the way an interface should look are made in relation to how it will be physically communicated to users.
- Holistic design is different from structured design because
  - it is less structured and constrained
  - no precise ordering of stages and representations
  - helps focus attention on appearance and the presentation of the conceptual model
  - helps visualize the design problem and solution in terms of an overall system image

Star User Interface

- Is an example of Holistic Design
- Uses the following design principles
  - familiar user's conceptual model
  - seeing and pointing versus remembering and typing
  - WYSIWYG
  - universal commands
  - consistency
  - simplicity
  - modeless interaction
  - user tailorability

Star User Interface (continued)

- Consistent representations on paper and screen (WYSIWYG)
- Utilizes universal commands such as
  - move, copy, delete, and show
- Keys for changing characters fast such as
  - bold and italic
- Modeless interaction
  - noun-verb commands for all actions
- Tailorability such as
 - the ability to change desktop icons

Holistic Design

- One approach - "**Game Playing**"
  - playing a design '*game'* with the users
  - was used for redesign of a newspaper production system in 1991
  - the semantics and syntax of the game have to be situated
  - utilizes cards the represent the main functions, objects, and artifacts that are used to situate and guide the analysis
  - cards can be screen shots, sketching, and prototyping

Sketching and Metaphor

- Designing a conceptual model as an explicit interface metaphor like the desktop metaphor already discussed
- **Visual brainstorming** to explore alternative designs using
  - initial sketches
  - cardboard representations of designs
  - scenarios
  - software or video prototypes
  - learning to be creative

Examples of Metaphors
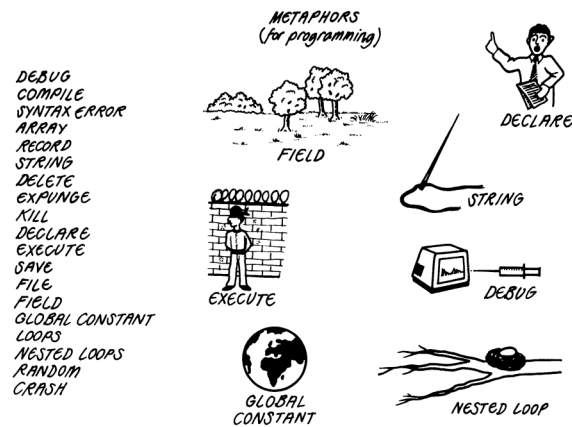
Figure 22.4 Some possible metaphors for programming concepts (Verplank and Kim, 1986).

Scenarios, Storyboards, and Snapshots

- **Scenario** - a personalized , fictional story with characters, events, products, and environments
  - helps designer explore ideas and ramifications of design decisions in particular concrete situations

- **Snapshots** - single visual images that capture significant possible interaction

- **Storyboards** - sequences of snapshots that focus on the main actions in a possible situation