* Direct manipulation
  + Problems:
    - The spatial or visual representations can be too spread out
    - Designs may force valuable info off the screen.
    - Higher user learning curve.
    - The visual representation may be misleading
    - Keyboard commands may be faster
* Visual thinking & icons
  + The visual nature of computers can challenge the first generation of hackers
  + An icon is an image, picture, or symbol of representing a concept.
  + Icon-specific guidelines
    - Represent the object or action in a familiar manner
    - Limit the number of icons
    - Make icons stand out from the background
    - Consider 3D icons
    - Ensure a selected icon is visible from unselected icons
    - Design the movement animation
    - Add detailed info.
    - Explore combinations of icons to create new objects or actions.
* Teleoperation
  + Has 2 “parents”: direct manipulation in personal computers and process control in complex environments
  + Physical operation is remote
  + Complicating factors in the architecture of remote environments;
    - Time delays
      * Transmission delays
      * Operation delays