





# Design Guidelines

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- Provide starting point in the development life cycle!



# Design Guidelines

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- Some very generic and consequently small in size - covers broad aspects of interactive systems, at a rather high level
  - “eight golden rules” (Shneiderman, 1986)
  - “seven principles” (Norman, 1988)



# Design Guidelines

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- Others are more detailed and specific and therefore large in (set) size - intended to cover minute aspects of the design, often for specific products
  - “human interface guidelines” for the Apple systems



# Eight Golden Rules (Shneiderman, 1986)

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- Strive for consistency
  - Internal consistency
  - External (environmental) consistency



# Eight Golden Rules (Shneiderman, 1986)

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- Design for universal usability
  - For novice, intermittent, expert (e.g., menu and hotkey)



# Eight Golden Rules (Shneiderman, 1986)

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- Offer informative feedback
  - E.g. progress bars
  - Color change of the floppy (storage metaphor) after save operation is done



# Eight Golden Rules (Shneiderman, 1986)

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- Design dialogues to yield closure
  - Related to previous rule
  - Organize activities into groups– beginning, middle, end
  - Some feedback at the end of each group
  - E.g. – online shopping (lots of subtasks, grouping helps)



# Eight Golden Rules (Shneiderman, 1986)

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- Offer error prevention and simple error handling
  - Design to keep error rates low (close and start options should not be kept close to each other)
  - Don't show complicated error message



# Eight Golden Rules (Shneiderman, 1986)

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- Permit easy reversal of actions
  - Undo and redo



# Eight Golden Rules (Shneiderman, 1986)

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- Keep users in control
  - Let the user feel that they are in control
  - User should be able to perceive their interaction and change in system state (e.g., drag and drop)



# Eight Golden Rules (Shneiderman, 1986)

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- Reduce short-term memory load
  - Gorge A Miller (1956) – “ $7 \pm 2$ ” rule
  - Should not force users to remember too many things



# Book

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- **Bhattacharya, S.** (July, 2019). Human-Computer Interaction: User-Centric Computing for Design, McGraw-Hill India
  - Print Edition: ISBN-13: 978-93-5316-804-9; ISBN-10: 93-5316-804-X
  - E-book Edition: ISBN-13: 978-93-5316-805-6; ISBN-10: 93-5316-805-8

**Chapter 2, Sec 2.4.4**