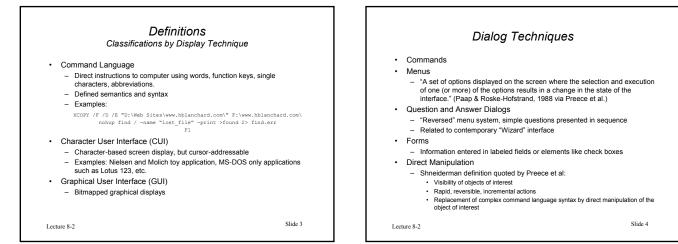


	Graphical User Interfaces	
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Defining Elements of GUIs

 Menus Icons

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- Pictorial representations of objects, commands, processes, programs, options, etc. -- replacing or supplementing words
- Windows
- Overlapping Windows
- Tiled Windows
- Direct Manipulation
 - Pointing Device
- Objects selected and moved on-screen to execute tasks
- Displays using pictures, diagrams, graphics, font techniques
 - Metaphor
 - Desktop

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Brief History of the GUI

- Doug Engelbart (1960s) Stanford Research Institute • Invention of Mouse and Windows
- Alan Kay (1970s) Xerox PARC Smalltalk, Dynabook - Overlapping Windows
- Patent also owned by Bell Labs for Unix terminals · Xerox PARC - Xerox Star and Alto workstations
- Never commercially successful
- Steve Jobs (Apple) works out deal for detailed tour and briefing of Xerox PARC technology (1979)
- Apple Lisa (1980s) - precursor of Mac fails miserably
- Apple Macintosh (1984) first commercially successful window system
- · MIT X-window system opens door to Unix workstation window systems
- MS Windows introduced as MS-DOS application Prompts famous Apple look-and-feel lawsuits which ultimately fail
- MS Windows 3.X becomes commercially accepted and successful

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Xerox Star Interface and Alto Workstation	Guiding Principles of the Apple Lisa
	 1980 Apple Marketing Requirements (From Perkins, 1990) Fun to use, friendly, rewarding Minimal user training One standard method of interacting with a user in handling text, numbers, and graphics Gradual learning: user can do important tasks easily with minimal instruction, sophistical features will be unobtrusive until they are needed Errors will be handled consistently in a friendly manner User will be protected from obvious errors personalization Allow the user to put computer on hold to attend to other tasks Graphics and "intuitive icons"
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Lisa Prototype Screens

http://home.san.rr.com/deans/prototypes.html

NOTE: this link is no longer active – If you'd like to view these pages, find the pdf print-out versions on the lecture page of this course.

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