

ME128 Computer-Aided Mechanical Design
Course Notes
User Interface Design Rules

- Know the user, and YOU are NOT the user.
- Things that look the same should act the same.
- Everyone makes mistakes, so every mistake should be flexible.
- The information for the decision needs to be there when the decision is needed.
- Error messages should actually mean something to the user, and tell the user how to fix the problem.
- Every action should have a reaction.
- Don't overload the user's buffers.
- Consistency, consistency, consistency.
- Minimize the need for a mighty memory.
- Keep it simple.
- The more you do something, the easier it should be to do.
- The user should always know what is happening.
- The user should control the system. The system shouldn't control the user. The user is the boss, and the system should show it.
- The idea is to empower the user, not speed up the system.
- Eliminate unnecessary decisions, and illuminate the rest.
- If I made an error, let me know about it before I get into REAL trouble.
- The best journey is the one with the fewest steps. Shorten the distance between the user and the goal.
- The user should be able to do what the user wants to do.
- Things that look different should act differently.
- You should always know how to find out what to do next.
- Don't let people accidentally shoot themselves.
- Even experts are novices at some point. Provide help.
- Design for regular people and the real world.
- Keep it neat. Keep it organized.
- Provide a way to bail out and start over.
- The fault is not in thyself, but in thy system.
- If it is not needed, it is not needed.
- Color is information.
- Everything in its place, and a place for everything.
- The user should be in a good mood when done.
- If I made an error, at least let me finish my thought before I have to fix it.
- Cute is not a good adjective for systems.
- Let people shape the system to themselves, and paint it with their own personality.
- To know the system is to love it.

(Note: This list was generated through an extensive survey of people working in the human-computer interface design field. Results of the survey are reported more

extensively by Arnold M. Lund of Ameritech in “Expert Ratings of Rules of Thumb for Usability.”)

Remember that creating effective user interfaces is less a matter of getting graphical widgets right, that is, the buttons, sliders, pop-up help balloons, etc., than understanding customer needs. Each of these needs must be met with specific interface techniques.

When common needs are being addressed by similar applications, you may find it effective to capture the effectiveness of specific tools and techniques at satisfying user requirements. This information can be used to match customer requirements to specific techniques that have been successfully employed before.