

Interaction Design Prototype Evaluation Factors

1. Anticipation

Applications and devices should attempt to anticipate the user's wants and needs.

2. Autonomy

Users learn quickly and gain a fast sense of mastery when they are placed "in charge." Status mechanisms are vital to supplying the information necessary for users to respond appropriately to changing conditions. Users should not have to seek out status information.

3. Physical Disability / Color Deficient Vision

The interface is accessible to people with various disabilities, such as color deficiency, deafness, and blindness, and alternative input and output devices are supported.

4. Consistency and Predictability

Make objects consistent with their behavior. Make objects that act differently look different. The most important consistency is consistency with user expectations.

5. Defaults

Fields containing defaults should come up selected, so users can replace the default contents with new material quickly and easily.

6. User Efficiency

Look at the user's productivity, not the device's. Keep the user occupied while the device performs functions in the background. Write help messages tightly and make them responsive to the problem.

7. Explorable Interface

Give users well-marked roads and landmarks. Offer users stable perceptual cues for a sense of "home." Make actions reversible. Always allow a way out.

8. Fitt's Law / Meyer's Law / Mousability

Make objects and targets sufficiently large. Use large objects for important functions.

9. Icons and Symbols (Human Interface Objects)

Human-interface objects can be seen, heard, touched, or otherwise perceived; have a standard way of interacting; have standard resulting behaviors; and should be understandable, self-consistent, and stable.

10. Latency Reduction

Provide rapid feedback after user actions. Wherever possible allow operations to occur in the background. Do not force the user to sit and wait for the application or device.

11. Learnability

Ideally, products would have no learning curve, but realistically the learning curve should be as brief as possible. Usability and learnability are not mutually exclusive.

12. Metaphors and Idioms

Choose metaphors well, metaphors that will enable users to instantly grasp the finest details of the conceptual model. Good metaphors are stories, creating visible pictures in the mind.

13. Protect User's Work

Ensure that users never lose their work as a result of error on their part, the vagaries of Internet transmission, or any other reason other than the completely unavoidable, such as sudden loss of power to the device.

14. Readability

Text that must be read should have high contrast. Use font sizes that are large enough to be readable on standard monitors. Pay particular attention to the needs of older people.

15. Track State and Location

Users should be able to log off at work, go home, and take up exactly where they left off. Users need to know if they are recognized as a first-time visitor, where they are, where they are going, where they have been, and where they left off in a prior session (when relevant.)

16. Visible Navigation

Avoid invisible navigation. Most users cannot and will not build elaborate mental maps and will become lost or tired if expected to do so.