

# 10 Usability Heuristics for User Interface Design

## Visibility of system status

The system should always keep users informed about what is going on, through appropriate feedback within reasonable time.

## Match between system and the real world

The system should speak the users' language, with words, phrases and concepts familiar to the user, rather than system-oriented terms. Follow real-world conventions, making information appear in a natural and logical order.

## User control and freedom

Users often choose system functions by mistake and will need a clearly marked "emergency exit" to leave the unwanted state without having to go through an extended dialogue. Support undo and redo.

## Consistency and standards

Users should not have to wonder whether different words, situations, or actions mean the same thing. Follow [platform conventions](#).

## Error prevention

Even better than good error messages is a careful design which prevents a problem from occurring in the first place. Either eliminate error-prone conditions or check for them and present users with a confirmation option before they commit to the action.

(Read full [article on preventing user errors](#).)

## Recognition rather than recall

Minimize the user's memory load by making objects, actions, and options visible. The user should not have to remember information from one part of the dialogue to another. Instructions for use of the system should be visible or easily retrievable whenever appropriate.

(Read full article on [recognition vs. recall in UX](#).)

## Flexibility and efficiency of use

Accelerators -- unseen by the novice user -- may often speed up the interaction for the expert user such that the system can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.

## Aesthetic and minimalist design

Dialogues should not contain information which is irrelevant or rarely needed. Every extra unit

of information in a dialogue competes with the relevant units of information and diminishes their relative visibility.

## **Help users recognize, diagnose, and recover from errors**

[Error messages](#) should be expressed in plain language (no codes), precisely indicate the problem, and constructively suggest a solution.

## **Help and documentation**

Even though it is better if the system can be used without documentation, it may be necessary to provide help and documentation. Any such information should be easy to search, focused on the user's task, list concrete steps to be carried out, and not be too large.

I originally developed the heuristics for [heuristic evaluation](#) in collaboration with Rolf Molich in 1990 [Molich and Nielsen 1990; Nielsen and Molich 1990]. I since refined the heuristics based on a factor analysis of 249 usability problems [Nielsen 1994a] to derive a set of heuristics with maximum explanatory power, resulting in this revised set of heuristics [Nielsen 1994b].