Nielsen and Molich's 10 User Interface Design Guidelines

Jakob Nielsen, a renowned web usability consultant and partner in the Nielsen Norman Group, and Rolf Molich, another prominent usability expert, established a list of ten user interface design guidelines in the 1990s.

Visibility of system status. Users should always be informed of system operations with easy to understand and highly visible status displayed on the screen within a reasonable amount of time.

Match between system and the real world. Designers should endeavor to mirror the language and concepts users would find in the real world based on who their target users are. Presenting information in logical order and piggybacking on user's expectations derived from their real-world experiences will reduce cognitive strain and make systems easier to use.

User control and freedom. Offer users a digital space where backward steps are possible, including undoing and redoing previous actions.

Consistency and standards. Interface designers should ensure that both the graphic elements and terminology are maintained across similar platforms. For example, an icon that represents one category or concept should not represent a different concept when used on a different screen.

Error prevention. Whenever possible, design systems so that potential errors are kept to a minimum. Users do not like being called upon to detect and remedy problems, which may on occasion be beyond their level of expertise. Eliminating or flagging actions that may result in errors are two possible means of achieving error prevention.

Recognition rather than recall. Minimize cognitive load by maintaining task-relevant information within the display while users explore the interface. Human attention is limited and we are only capable of maintaining around five items in our short-term memory at one time. Due to the limitations of short-term memory, designers should ensure users can simply employ recognition instead of recalling information across parts of the dialogue. Recognizing something is always easier than recall because recognition involves perceiving cues that help us reach into our vast memory and allowing relevant information to surface.

Flexibility and efficiency of use. With increased use comes the demand for less interactions that allow faster navigation. This can be achieved by using abbreviations, function keys, hidden commands and macro facilities. Users should be able to customize or tailor the interface to suit their needs so that frequent actions can be achieved through more convenient means.

Aesthetic and minimalist design. Keep clutter to a minimum. All unnecessary information competes for the user's limited attentional resources, which could inhibit user's memory retrieval of relevant information. Therefore, the display must be reduced to only the necessary

components for the current tasks, whilst providing clearly visible and unambiguous means of navigating to other content.

Help users recognize, diagnose and recover from errors. Designers should assume users are unable to understand technical terminology, therefore, error messages should almost always be expressed in plain language to ensure nothing gets lost in translation.

Help and documentation. Ideally, we want users to navigate the system without having to resort to documentation. However, depending on the type of solution, documentation may be necessary. When users require help, ensure it is easily located, specific to the task at hand and worded in a way that will guide them through the necessary steps towards a solution to the issue they are facing.