

ITI0209: User Interfaces

01. Introduction: Good UI

Martin Verrev

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Purpose and Scope

- Give the overview of principles for good design.
- Provide a framework to evaluate the user interface.

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An **user interface (UI) is the space where interactions between humans and machines occur. The goal of effective UI is to make the user's experience easy and intuitive, requiring minimum effort on the user's part to receive the maximum desired outcome.**

An **user experience (UX) refers to the user's journey when interacting with a product or service. UX design is the process of creating products or services that provide meaningful experiences for users, involving many different areas of product development including branding, usability, function, and design.**

Usability is a quality attribute that assesses how easy user interfaces are to use. The word "usability" also refers to methods for improving ease-of-use during the design process.

Definition of **Utility** (*kasulikkus*) = whether it provides the **features you need**.

Definition of **Usability** (*kasutatavus*) = how **easy & pleasant** these features are to use.

Definition of **Useful** (*kõlbulik*) = **usability + utility**.

Usability is defined by 5 qualities:

Learnability: How easy is it for users to accomplish basic tasks the first time they encounter the design?

Efficiency: Once users have learned the design, how quickly can they perform tasks?

Memorability: When users return to the design after a period of not using it, how easily can they reestablish proficiency?

Errors: How many errors do users make, how severe are these errors, and how easily can they recover from the errors?

Satisfaction: How pleasant is it to use the design?

Design is a discipline of study and practice focused on the interaction between user and the man-made environment, taking into account aesthetic, functional, contextual, cultural and societal considerations.

“Design is not just what it looks like and feels like.
Design is how it works.” — Steve Jobs

Dieter Rams

1932

Wikipedia:

https://en.wikipedia.org/wiki/Dieter_Rams

See also:

<https://designwanted.com/dieter-rams-discover-10-best-designs/>



1958



2001



?



10 principles of good design

1. Good design is innovative
2. Good design makes a product useful
3. Good design is aesthetic
4. Good design makes a product understandable
5. Good design is unobtrusive
6. Good design is honest
7. Good design is long-lasting
8. Good design is thorough down to the last detail
9. Good design is environmentally-friendly
10. Good design is as little design as possible



1. Good design is innovative

The possibilities for progression are not, by any means, exhausted.

Technological development is always offering new opportunities for original designs. But imaginative design always develops in tandem with improving technology, and can never be an end in itself.



2. Good design makes a product useful

A product is bought to be used. It has to satisfy not only functional but also psychological and aesthetic criteria. Good design emphasizes the usefulness of a product whilst disregarding anything that could detract from it.



3. Good design is aesthetic

The aesthetic quality of a product is integral to its usefulness because the products we use every day affect our person and our well-being. But only well-executed objects can be beautiful.

“Between two products equal in price, function and quality, the one with the most attractive exterior will win.”

— Raymond Loewy



4. Good design makes a product understandable

It clarifies the product's structure. Better still, it can make the product talk. At best, it is self-explanatory.



5. Good design is unobtrusive

Products fulfilling a purpose are like tools. They are neither decorative objects nor works of art. Their design should therefore be both neutral and restrained, to leave room for the user's self-expression.



6. Good design is honest

It does not make a product more innovative, powerful or valuable than it really is. It does not attempt to manipulate the consumer with promises that cannot be kept.

7. Good design is long-lasting

It avoids being fashionable and therefore never appears antiquated. Unlike fashionable design, it lasts many years — even in today's throwaway society.



8. Good design is thorough down to the last detail

Nothing must be arbitrary or left to chance. Care and accuracy in the design process show respect towards the user.



9. Good design is environmentally-friendly

Design makes an important contribution to the preservation of the environment. It conserves resources and minimizes physical and visual pollution throughout the lifecycle of the product.



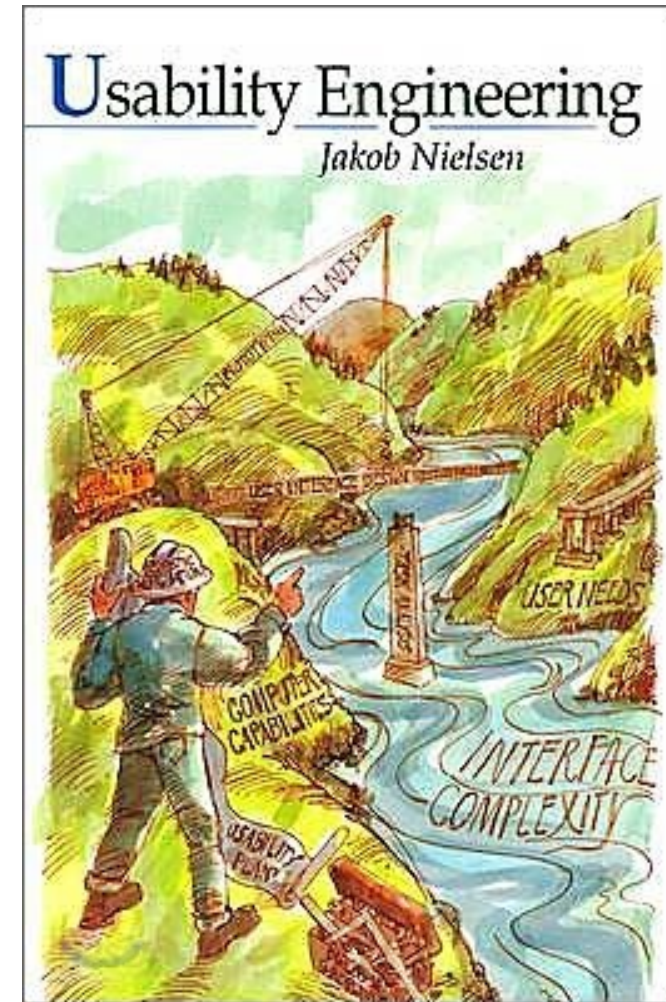
10. Good design is as little design as possible

Less, but better — because it concentrates on the essential aspects, and the products are not burdened with non-essentials.

Usability engineering.

Jakob Nielsen. 1993

<https://www.nngroup.com/books/usability-engineering/>



10 Usability Heuristics for User Interface Design

1. Visibility of System Status

How well the state of the system is conveyed to its users. Ideally, systems should always keep users informed about what is going on, through appropriate feedback within reasonable time.

2. Match Between the System and the Real World

The design should speak the users' language. Use words, phrases, and concepts familiar to the user, rather than internal jargon. Follow real-world conventions, making information appear in a natural and logical order.

10 Usability Heuristics for User Interface Design

3. User Control and Freedom

Users often perform actions by mistake. They need a clearly marked "emergency exit" to leave the unwanted action without having to go through an extended process.

4. Consistency and Standards

Users should not have to wonder whether different words, situations, or actions mean the same thing. Follow platform and industry conventions.

10 Usability Heuristics for User Interface Design

5. Error Prevention

Good error messages are important, but the best designs carefully prevent problems 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.

6. Recognition Rather than Recall

Minimize the user's memory load by making elements, actions, and options visible. The user should not have to remember information from one part of the interface to another. Information required to use the design (e.g. field labels or menu items) should be visible or easily retrievable when needed.

10 Usability Heuristics for User Interface Design

7. Flexibility and Efficiency of Use

Shortcuts — hidden from novice users — may speed up the interaction for the expert user so that the design can cater to both inexperienced and experienced users. Allow users to tailor frequent actions.

8. Aesthetic and Minimalist Design

Interfaces should not contain information that is irrelevant or rarely needed. Every extra unit of information in an interface competes with the relevant units of information and diminishes their relative visibility.

10 Usability Heuristics for User Interface Design

9. Help Users Recognize, Diagnose, and Recover from Errors

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

10. Help and Documentation

It's best if the system doesn't need any additional explanation. However, it may be necessary to provide documentation to help users understand how to complete their tasks.

References

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Thank you :)