User Experience Design I
(Interaction Design)

Simplicity and
(Good) UX/UI Design Practice
"Great design is as much about prospecting in the past as it is about inventing the future."

Bill Buxton

source: [6]
Requirements:

- Type(s) (variations of the original design)
- Basic shape(s) - few simple parts (industrial manufacturing)
- Functionality (design for human needs)

source: [7]
Charles and Ray Eames
Ray & Charles Eames
Ten Principles: Good design...
1. **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. **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. **is aesthetic** – The aesthetic quality of a product is integral to its usefulness because products are used every day and have an effect on people and their well-being. Only well-executed objects can be beautiful.

4. **makes a product understandable** – It clarifies the product’s structure. Better still, it can make the product clearly express its function by making use of the user's intuition. At best, it is self-explanatory.

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

7. **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. **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 consumer.

9. **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. **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. Back to purity, back to simplicity.

Braun SK6
Braun Radio

iPod (1st gen)

iPhone Calculator

Braun Calculator

Braun Speaker

iMac

Braun Radio

Powermac G5

Like all forms of design, visual design is about problem solving, not about personal preference or unsupported opinion.

Bob Baxley
Interface design is only the experienced representation of the interaction, not the UX/interaction design itself.
User Interface (UI) Design focuses on anticipating what users might need to do and ensuring that the interface has elements that are easy to access, understand, and use to facilitate those actions. UI brings together concepts from interaction design, visual design, and information architecture.
Users have become familiar with interface elements acting in a certain way, so try to be consistent and predictable in your choices and their layout. Doing so will help with task completion, efficiency, and satisfaction.

source: [13, 14]
Visible

User Interface

Behind the Scenes

Capturing

Transferring

Connecting

Coordinating

Combining

Storing

Contextualizing

source: [4]
UX design communicates attributes such as reliability, excitement, playfulness, energy, calmness, strength, tension, and joy.
Tools
Visual Clutter
Clutter creates visual noise and makes an application hard to use
Gestalt Psychology

• The Gestalt laws prescribe for us what we are to recognise as one thing’ (Köhler, 1920)

• How smaller objects are grouped to form larger ones

• Rules of the organisation of perceptual scenes (Heuristics)

source: [12]
Gestalt Laws

- Proximity
- Collinearity
- Co-circularity
- Continuity
- Parallelism
- Symmetry
- Closure
- Convexity

...
In summary the Gestalt Theory believes individuals use insight and their prior experiences to determine the response to stimuli...

....(uses) Gestalt Theory to try to make sense of, and provide order to, information in their perception.

source: [12]
Proximity & Grouping
Alignment
By grouping similar elements together, the designer helps the user deal with a **complex information** display by reducing it to a manageable number of units.

source: [2]
All form actions are not equal, and therefore the visual presentation of actions should match their importance to make it easier to complete a form. Visual distinction helps users make “good” choices.
Constraint
Constraints are closely related to **real affordances**: For example, it is not possible to move the cursor outside the screen: this is a physical constraint.

Locking the mouse button when clicking is not desired would be a physical constraint. Restricting the cursor to exist only in screen locations where its position is meaningful is a physical constraint.
Visual Constraint
Scalability of Interfaces / Flexibility
Overcrowded Widget

Users are overwhelmed by options, limitless flexibility

Only show me what I need to see

Implement one easy to discover and easy to learn core pattern for common actions across the platform.
Adjust to users’ preferences.
Make less common actions harder to reach.
Effective design creates no more contrast than necessary.

This allows the viewer to easily identify the elements in question as a strongly defined subset of the available information.

source: [2]
Effective design creates no more contrast than necessary. This allows the viewer to easily identify the elements in question as a strongly defined subset of the available information.
Approachability
Simple designs can be rapidly apprehended and understood well enough to support immediate use or invite further exploration.

source: [2]
Recognisability
Simple designs can be recognised more easily than their more elaborate counterparts. Because they present less visual information to the viewer, they are more easily assimilated, understood and remembered.

source: [2]
Reduction means that you eliminate whatever isn’t necessary.

This technique has three steps: (1) decide what essentially needs to be conveyed by the design; (2) critically examine every element (feature, label, UI widget, etc.) to decide whether it serves an essential purpose; (3) remove it if it isn’t essential.

source: [2]
Reduction through successive refinement is the only path to simplicity
References (Books):