UI & UX Design

SWE 4833

We Perceive What We Expect

(Chapter 1)

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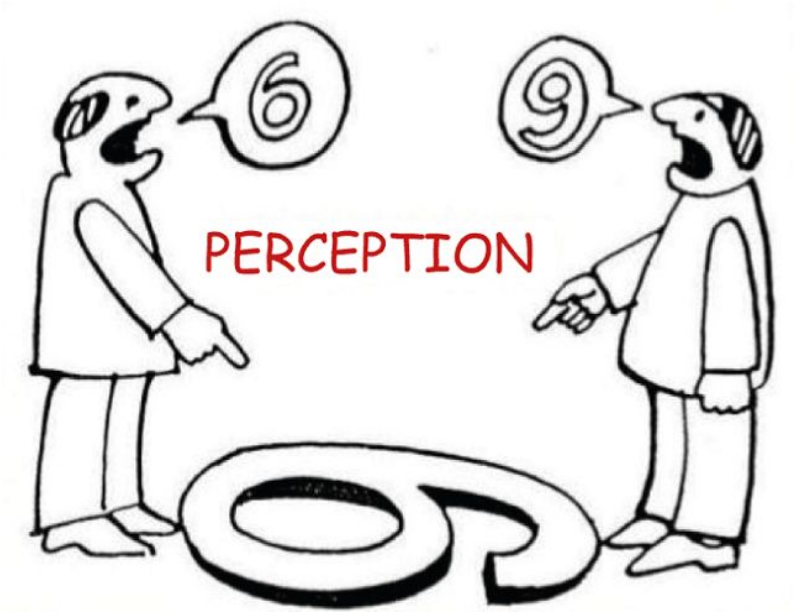
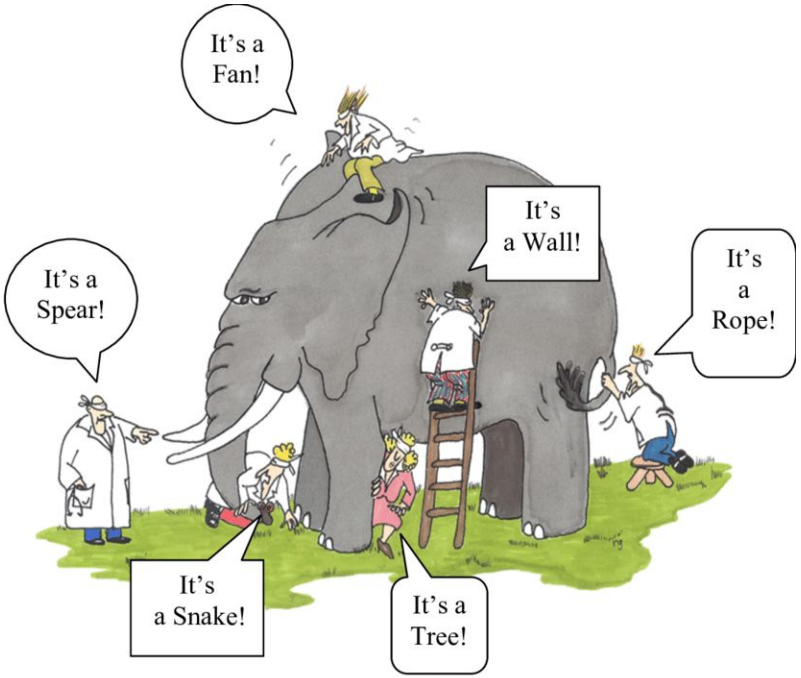
What's perception?



What's perception?

Our perception of the world around us is not a true depiction of what is actually there.



We perceive what **we expect to perceive.**

Our expectations— and therefore our perceptions—are biased by three factors:

- ➔ The past: our **experience**
- ➔ The present: the **current context**
- ➔ The future: our **goals**

Perception biased by Experience

Assume, you own a large insurance company. You are meeting with a real estate manager, discussing plans for a new campus of company buildings.
The campus consists of a row of **five buildings**, the last two with **T-shaped courtyards** providing light for the cafeteria and fitness center. The real estate manager showed you the following map.

Perception biased by Experience

Now imagine that instead of a real estate manager, you are meeting with an advertising manager. You are discussing a new billboard ad to be placed in certain markets around the country.
The advertising manager shows you the same image, but in this scenario the image is a sketch of the ad, consisting of **a single word**.

Perception biased by Experience

What can you see here?

Splatter of ink?

Dalmatian dog sniffing the ground near a tree?

Perception biased by Experience

What do you understand by this text?

“New Vaccine Contains Rabies”

Contaminated vaccine

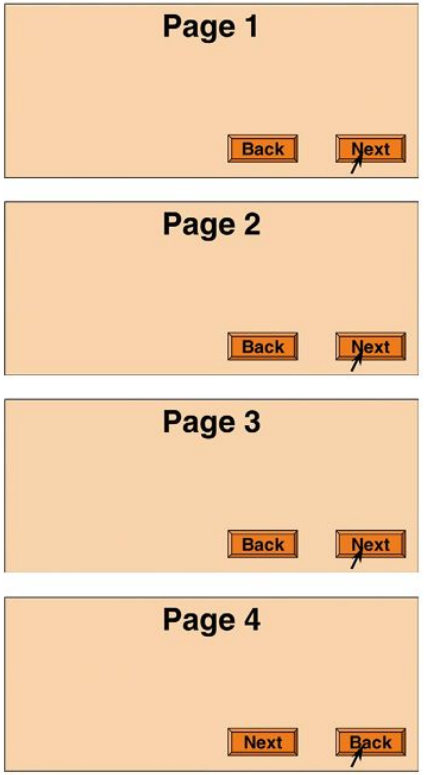
Successful uses of vaccines

Perception biased by Experience

Design implication related to this concept

Do you see any problem here?

The key is to **be consistent** while designing the UI.



Perception biased by Current Context

You might assume that our visual system first recognizes shapes as letter and then combines letters into words, words into sentences, and so on (bottom-up process).

But visual perception, reading in particular, is not strictly a bottom-up process. For example, the word in which a character appears may affect how we identify the character.

Perception biased by Current Context

Fold napkins. *Polish silverware*. Wash dishes.

French napkins. *Polish silverware*. German dishes.

The same phrase is perceived differently depending on the list it appears in.

Perception biased by Current Context

Perceptions in any of our five senses may affect simultaneous perceptions in any of our other senses. For example:

- ➔ What we see can be biased by what we are hearing, and vice versa
- ➔ What we feel with our tactile sense can be biased by what we are hearing, seeing, or smelling

Perception biased by Goals

Perception biased by Goals

Did you see a scissor?

What about a screwdriver?

Perception biased by Goals

Our goals filter our perceptions in other perceptual senses as well as in vision

The "cocktail party" effect!
The ability to focus on one conversation in a noisy environment while filtering out other sounds, like at a crowded social gathering.

Design Implications from the above discussion:

- Avoid Ambiguity
- Be Consistent
- Understand the goals

AA BC UG

Avoid ambiguity

- Test your design to verify that all users interpret the display in the same way.
- Where ambiguity is unavoidable, either rely on standards or conventions to resolve it, or prime users to resolve the ambiguity in the intended way.

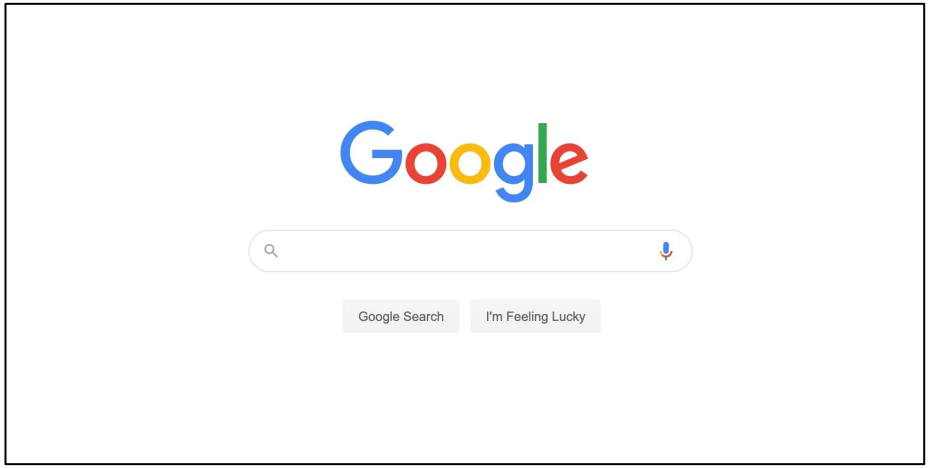
Be Consistent

- Place information and controls in consistent locations.
- Controls and data displays that serve the same function on different pages should be placed in the same position on each page on which they appear.
- They should also have the same color, text fonts, shading, and so on.
- Consistency allows users to spot and recognize them quickly.

Understand the goals

- Designers should understand the goals users come with.
- Ensure that at every point in an interaction, the information users need is available, prominent, and maps clearly to a possible user goal, so users will notice and use the information.

Understand the goals



References

1. Designing with The Mind in Mind, Chapter 1.