Reading Review: Article

Why Human-Centered Design Matters

-Dave Thomsen, Wanderful Media

HUMAN CENTERED DESIGN

"a human-centered approach fuels the creation of products that resonate more deeply with an audience"
-Thomsen

RE-FRAME THE PROBLEM

From: “asking questions like, ‘How can we raise our customer’s average monthly bill by 10%?’”

To: “asking questions like, ‘How can we help busy families stay connected?’”

MVP DEFINITION

What does MVP stand for?

MVP DEFINITION

Minimum Viable Product

KEY TAKEAWAY

"Involving users early, prototyping to learn and applying a design-driven approach to every touch point along our product journey... can lead to breakthrough product experiences."
-Thomsen

Reading Review: Chapter 1

The Psychopathology of Everyday Things

-Don Norman

THREE DESIGN SPECIALTIES

Industrial Design

Interaction Design

Experience Design

THREE DESIGN SPECIALTIES

Industrial Design - form and material

Interaction Design - understandability and usability

Experience Design - emotional impact

DISCOVERABILITY DEFINITION

What does discoverability of a product mean?

DISCOVERABILITY DEFINITION

Discoverability of a product means figuring out what it does, how it works, and what operations are possible.

6 PSYCHOLOGICAL CONCEPTS

Affordances
Signifiers
*Constraints *Chapters 3-4*
Mappings
Feedback
Concetual Model

Affordances - Relationship between an object and the person/user (what the action is)

Signifiers - indicator to communicate affordance (where the action should take place)

Mappings - relationship between controls, the actions, and the intended result

6 PSYCHOLOGICAL CONCEPTS

Feedback - effectively communicating the results of an action

Conceptual Model - a abstracted explanation of how something works and what people can do with a product, which allows us to predict the effects of our actions

2.0 Interaction Design (Part One)

USER-CENTERED DESIGN
(HUMAN CENTERED DESIGN)

SIX PRINCIPLES OF UCD

1. The design is based upon an explicit understanding of users, tasks, and environments.

2. Users are involved throughout design and development.

3. The design is driven and refined by user-centered evaluation.

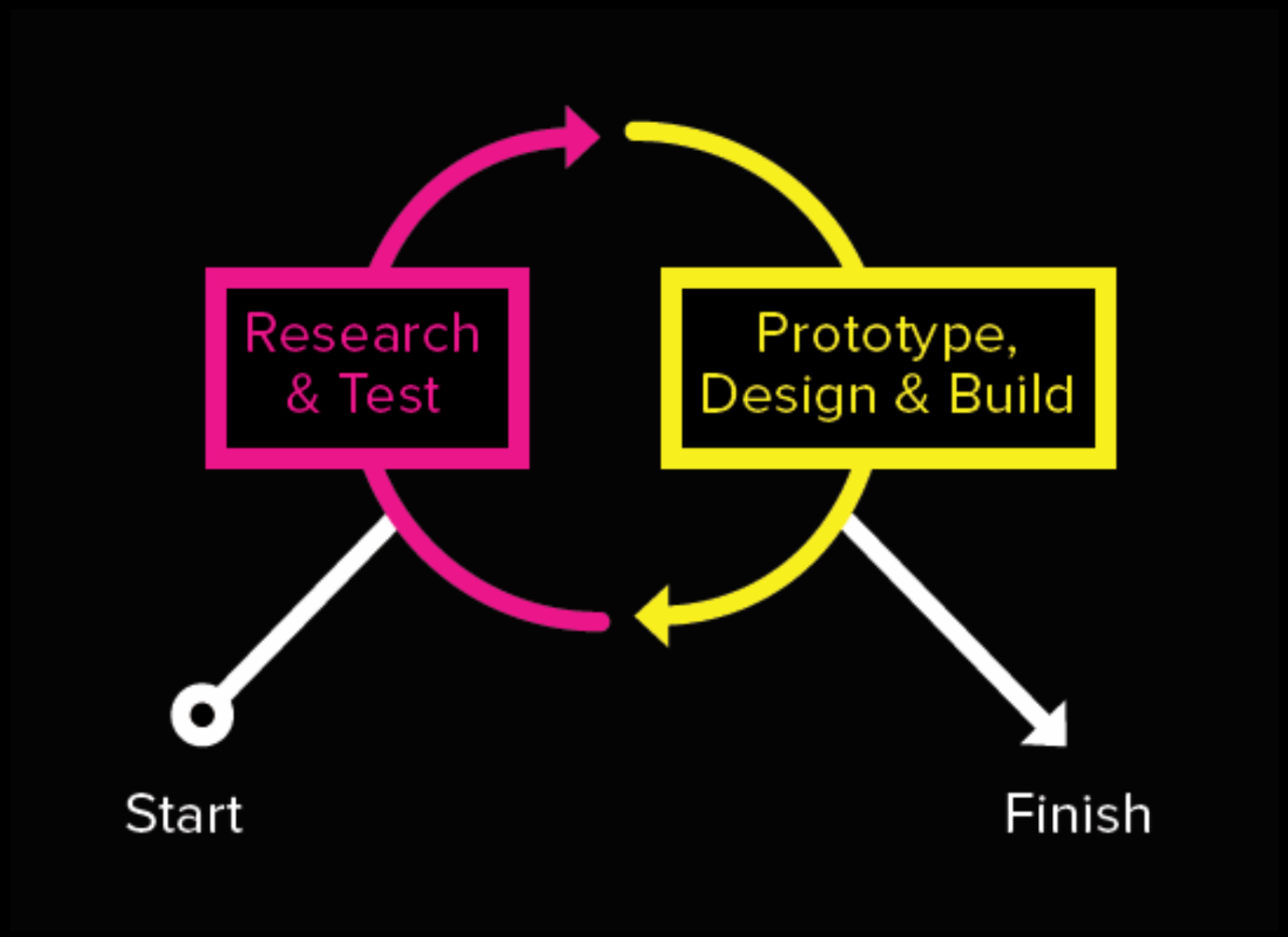
4. The process is iterative.

SIX PRINCIPLES OF UCD

5. The design addresses the whole user experience.

6. The design team includes multidisciplinary skills and perspectives.

ITERATIVE PROCESS



MASLOW'S HIERARCHY OF NEEDS: A theory of human motivation

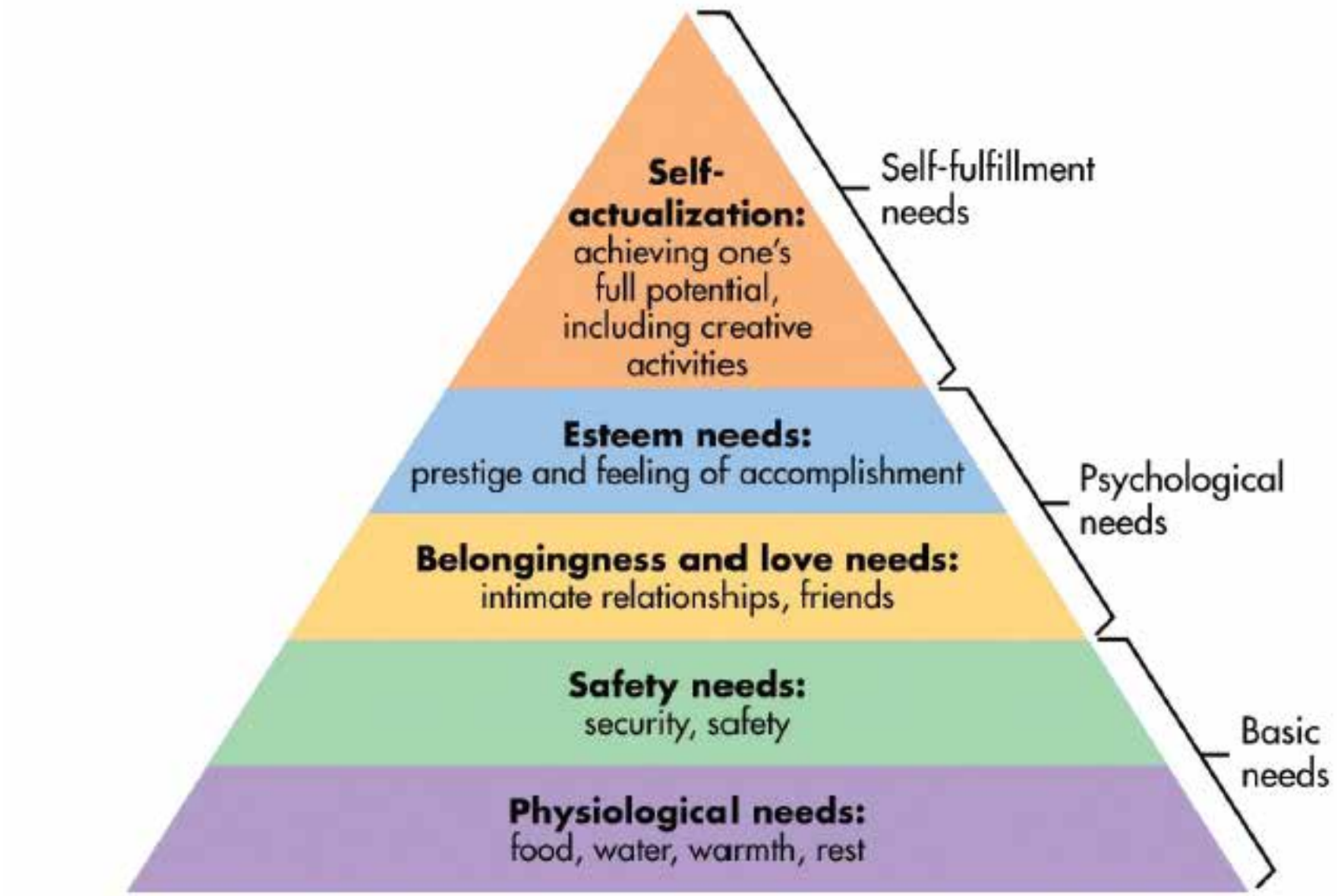
Abraham Maslow

American psychologist

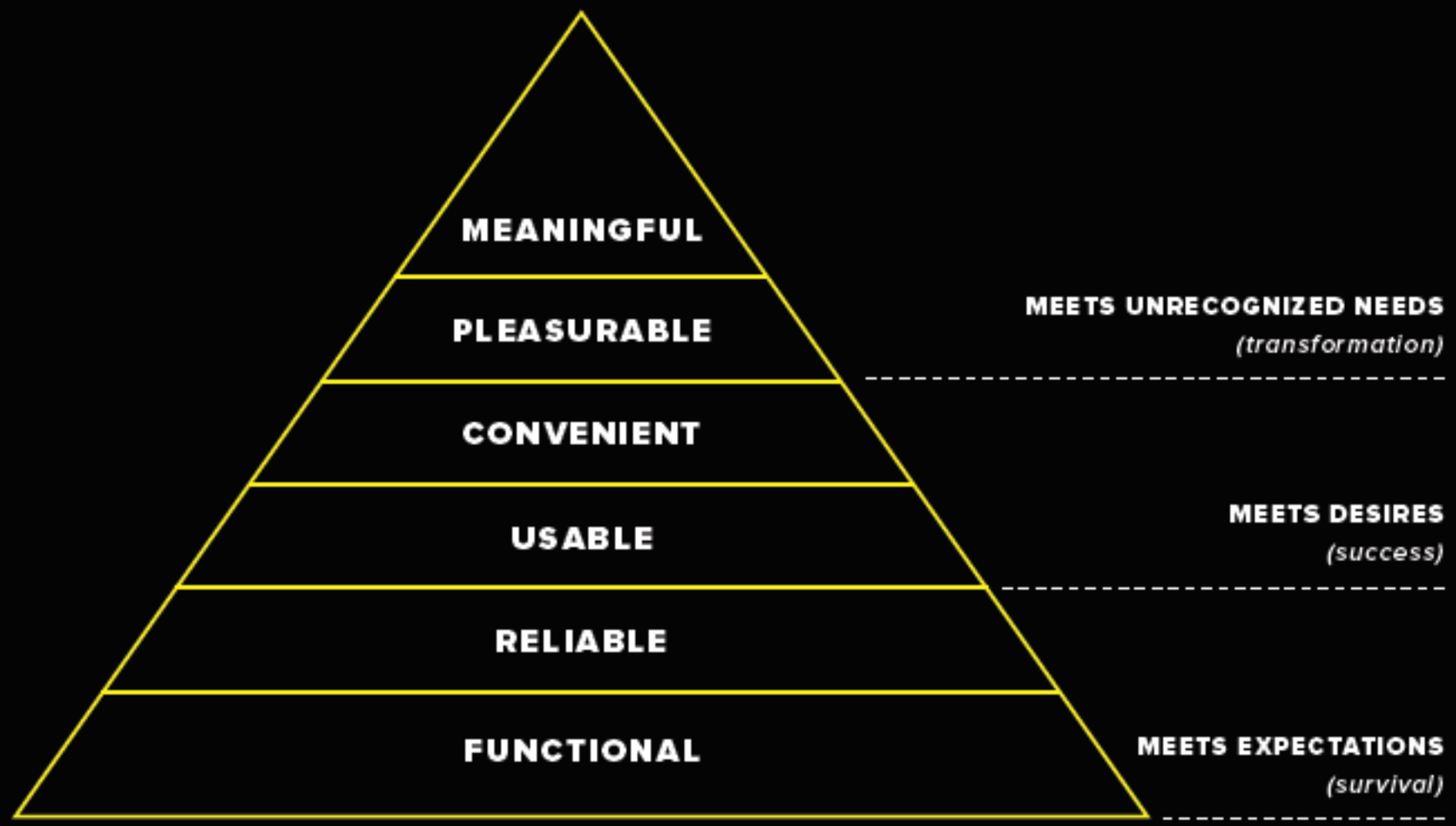
1943

MASLOW'S HIERARCHY OF NEEDS

Based on Maslow's hierarchy of needs, the idea of a design hierarchy of needs rests on the assumption that in order to be successful, a design must meet basic needs before it can satisfy higher-level needs.


Self-
actualization:
achieving one's
full potential,
including creative
activities
Esteem needs:
prestige and feeling of accomplishment
Belongingness and love needs:
intimate relationships, friends
Safety needs:
security, safety
Physiological needs:
food, water, warmth, rest
Self-fulfillment
needs
Psychological
needs
Basic
needs

DESIGN HIERARCHY



COGNITIVE FRAMEWORKS DEFINITION

Explains and pedicts user behavior based on theories of cognition.

MANY PROCESSES OF COGNITION

Attention
Perception
Memory
Learning
Reading, speaking, and listening
Problem solving, planning, reasoning, and decision making

CONCEPTUAL MODEL

An abstraction outlining what people can do with a product and what concepts are needed to understand how to interact with it.

Metaphors and analogies convey to people how to understand what the product is for, and how to use it.

Concepts that people are exposed to throughout the product.

Relationships between concepts

CORE COMPONENTS

How the various metaphors, concepts, and their relationships are organized determines the user experience.

COGNITIVE LOAD DEFINITION

The level of effort associated with thinking and reasoning (including perception, memory, language, etc.), thus potentially interfering with other thought processes.

COGNITIVE LOAD

A user interface strives to minimize the cognitive load associated with operating the interface itself so that all of a person's cognitive resources are available for their task.

SCHEMAS

A mental structure of preconceived ideas, a framework representing some aspect of the world, or a system of organizing and perceiving new information.

SCHEMAS: Good

New information that falls within an individual's schema is easily and quickly remembered and incorporated into their world view.

Schema can be helpful in providing information in an easy to understand, expected manner.

SCHEMAS: Bad

Can influence and hamper the uptake of new information, such as existing stereotypes giving rise to limited or biased expectations.

Individuals may “see” or “remember” something that has not happened because it fits into their own schema.

A mental model is what the user believes about the system at hand:

A mental model is based on belief, not facts; and individual users each have their own mental model.

Goes beyond schema theory to include perceptions of task demands and task performances.

ACTING ON MENTAL MODELS

When you see people making mistakes on your site, the reason is often because they've formed an erroneous mental model.

ACTING ON MENTAL MODELS: Options

1. You can teach users a more accurate mental model at the earlier stage of the user experience.

2. You might have to acknowledge that users won't understand certain distinctions, and then you must stop making those distinctions.

DESIGNism #4

THE BEHAVIOR YOU'RE SEEING IS THE BEHAVIOR YOU'VE DESIGNED FOR.

(Whether intentional or not).

-Joshua Porter

VISUAL PATTERNS

We are pattern seekers.

We store patterns that influence our expectations.

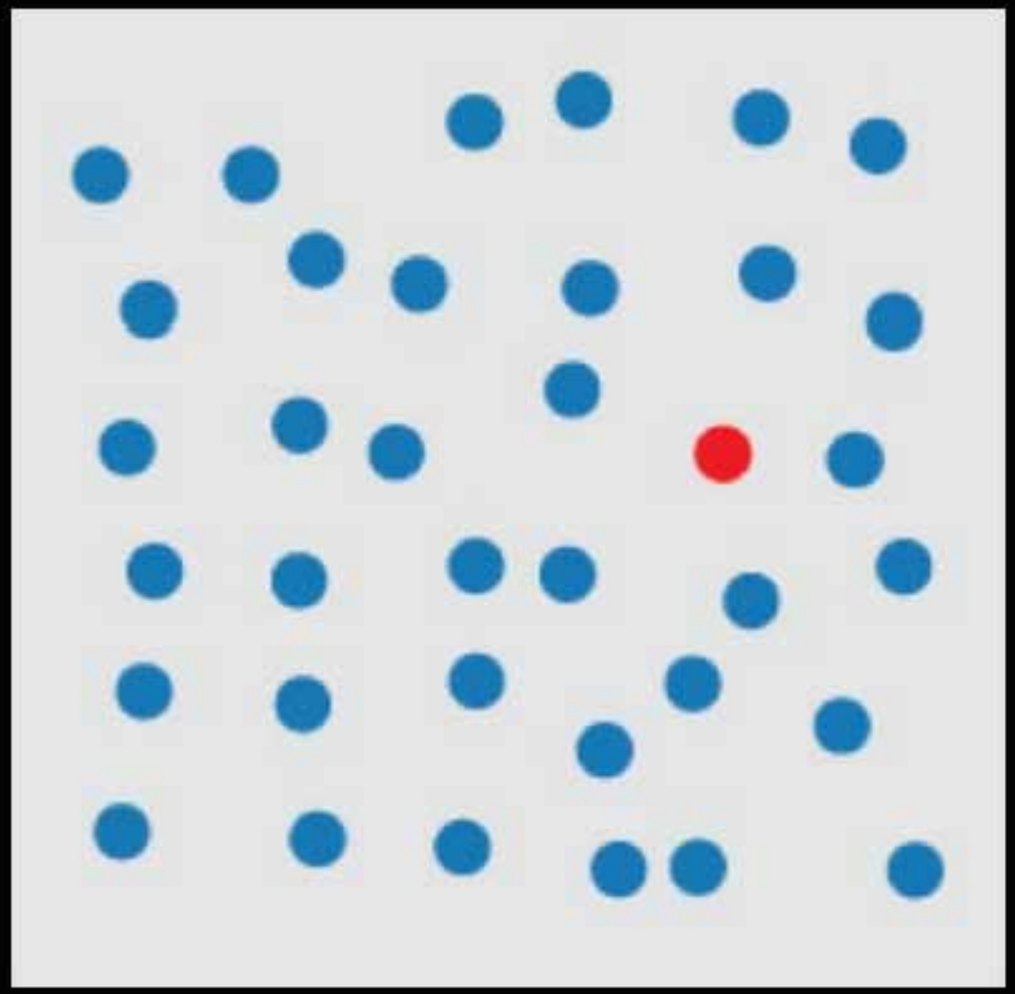
What we see is strongly influenced by our expectations.

VISUAL PERCEPTION

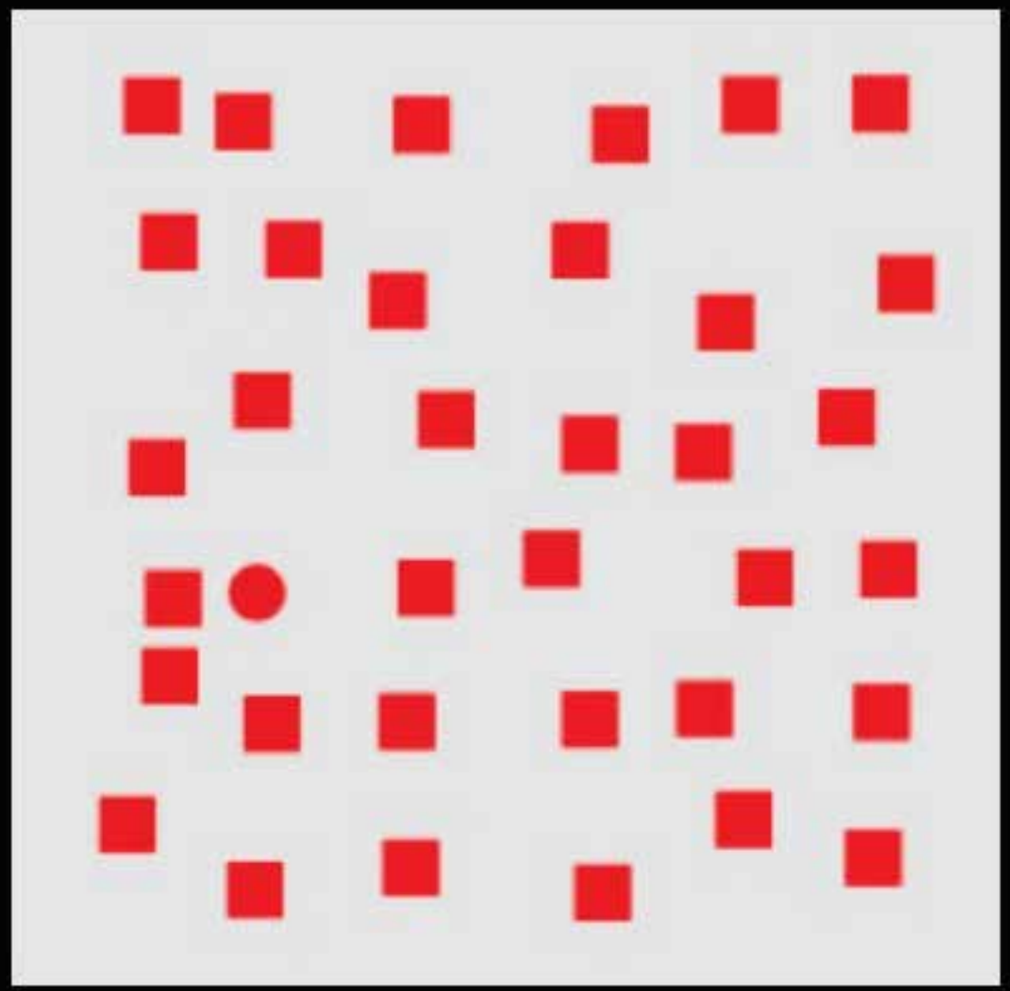
Perception is based on change. We scan, filter, and interpret differences.

We use differences to create understanding.

FIND THE RED CIRCLE



FIND THE RED CIRCLE



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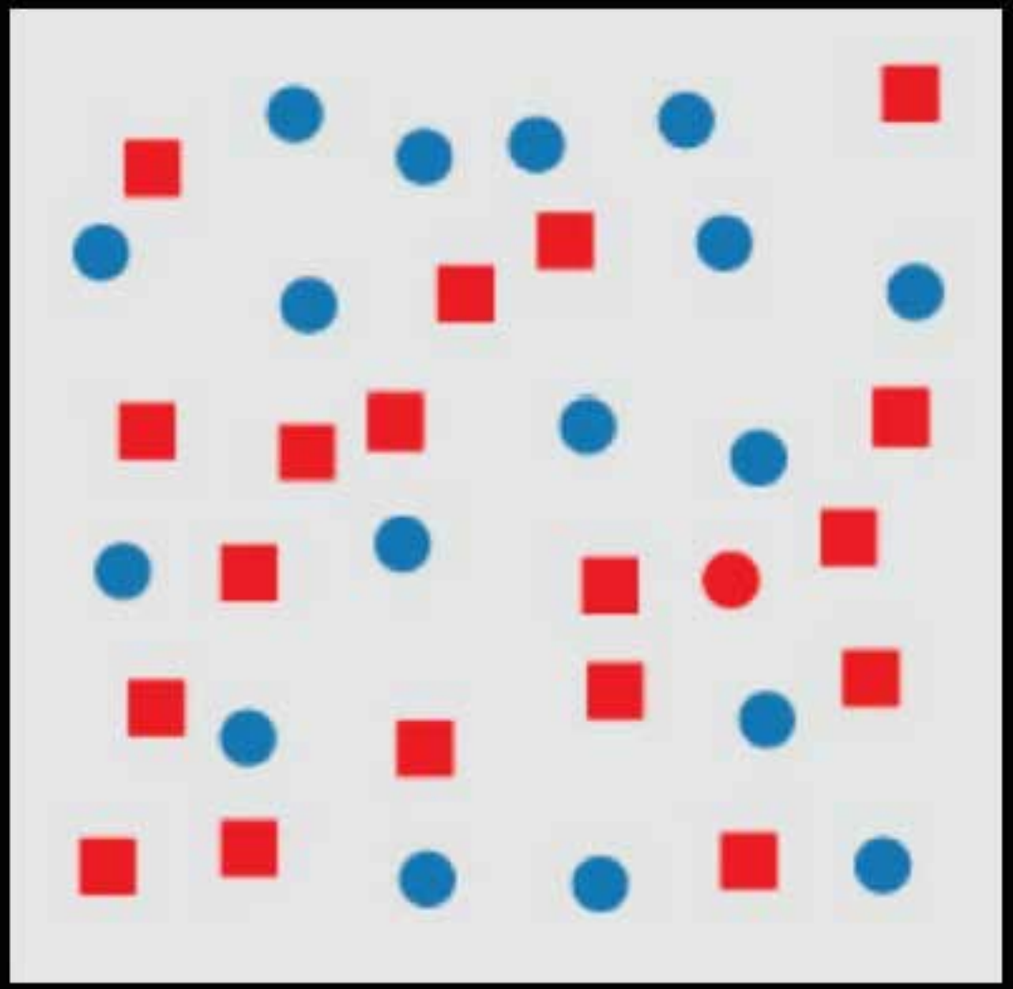
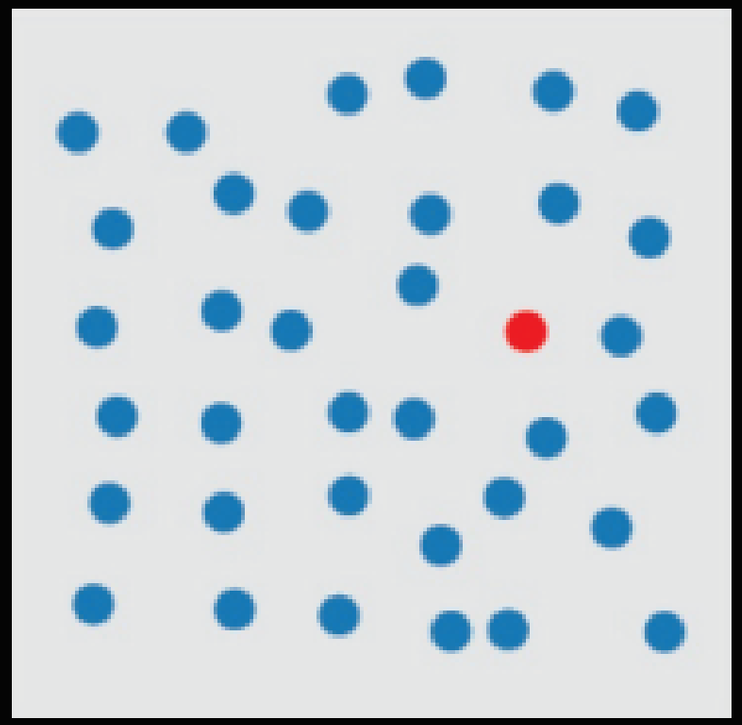
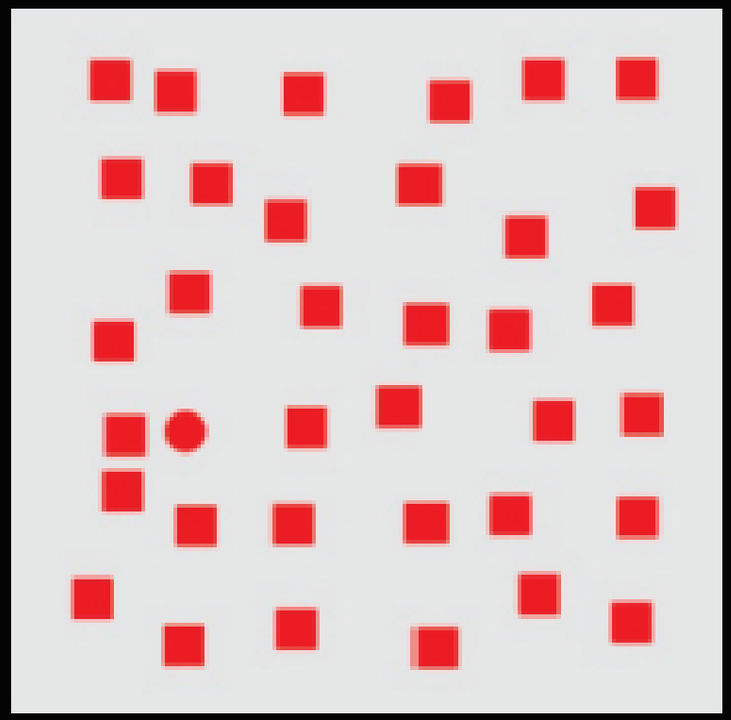


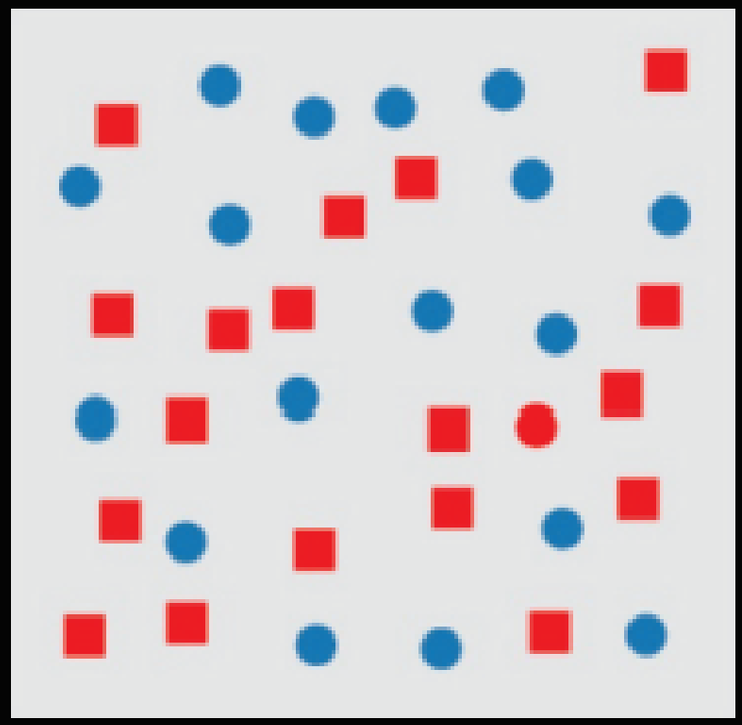
DON’T MAKE ME THINK



NO THINKING



SOME THINKING



FUHGEDDABOUDIT

An interaction is intuitive when the user doesn’t have to think.

Guided via visual and interaction designs.