

UX STARTER KIT

Speakers



Kamonlojn Phrompang



Prayoch Rujira



Introduction

What is UX

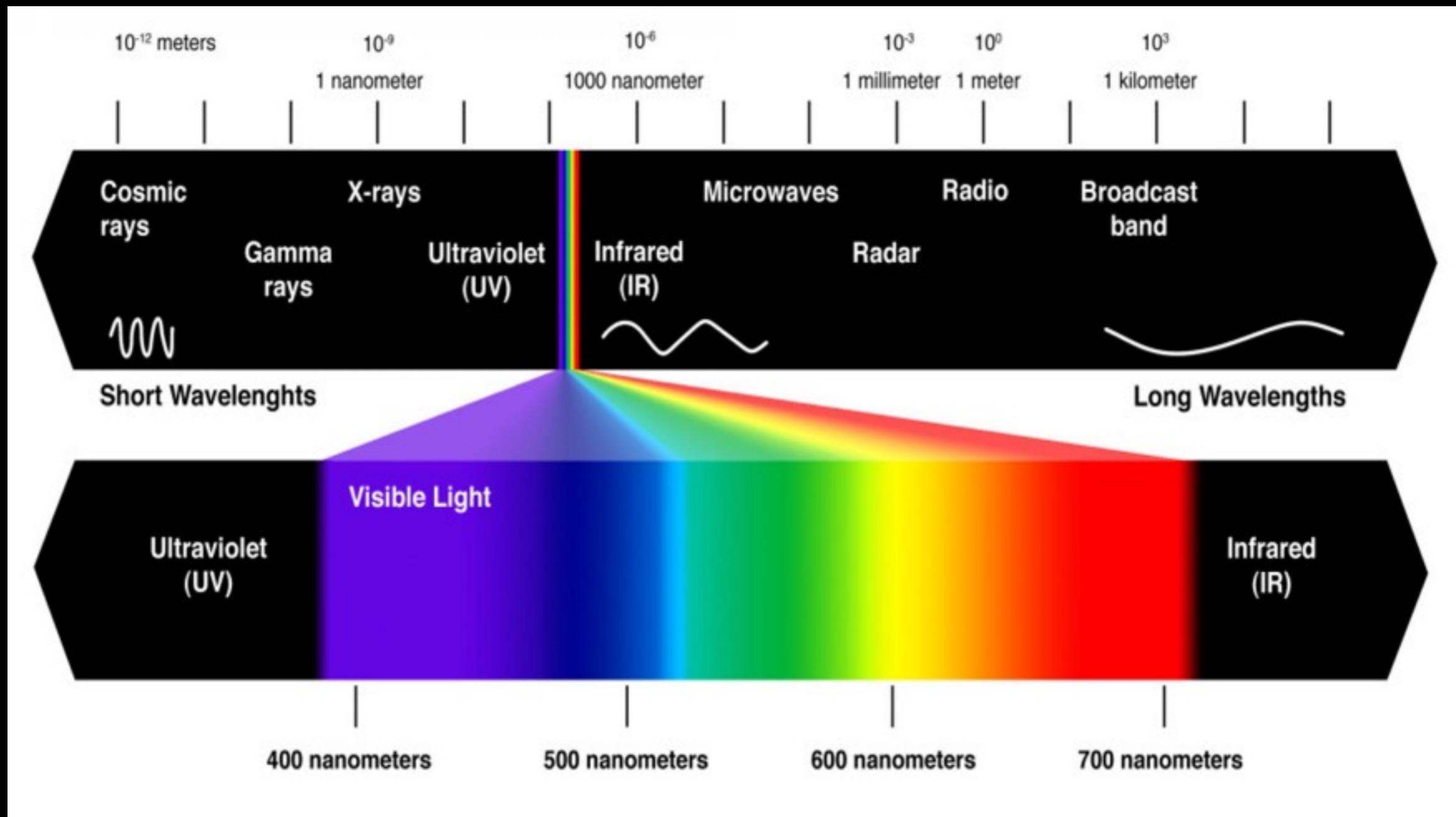
VIMM Model

- Vision
- Intellectual
- Memory
- Motor

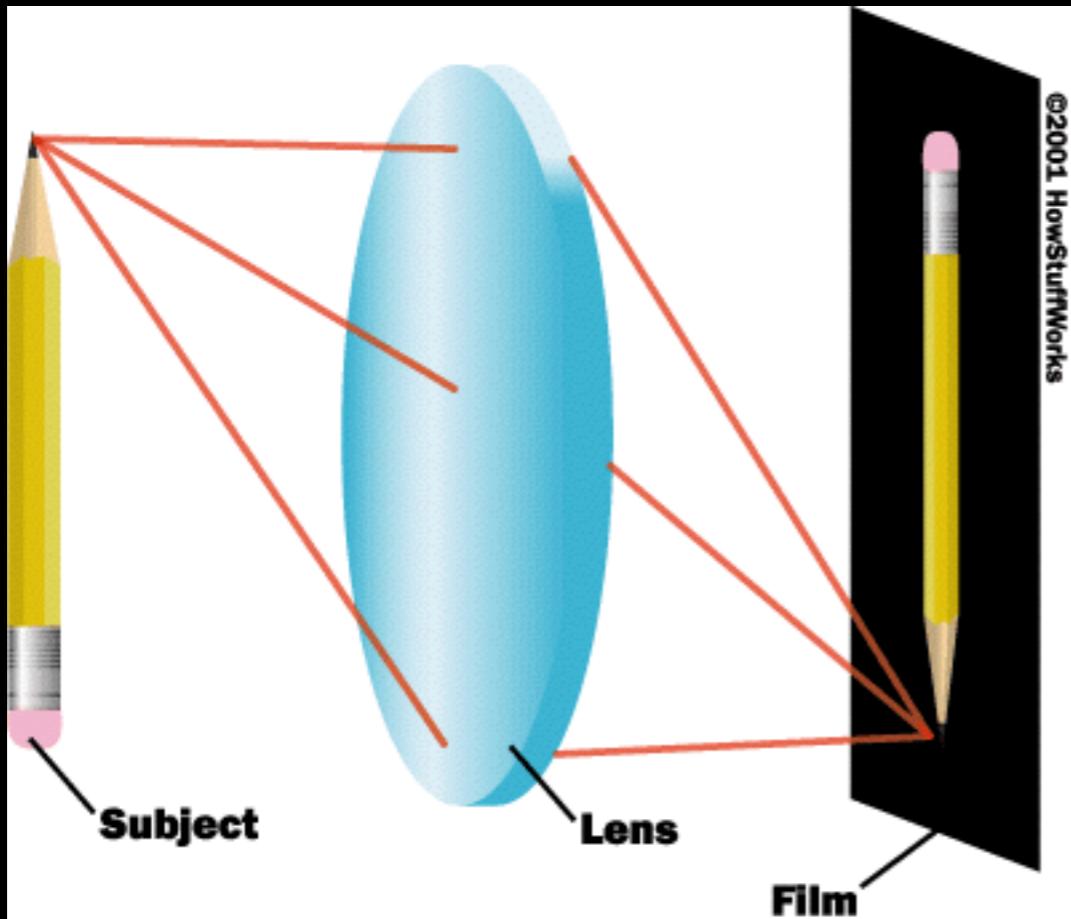


Vision

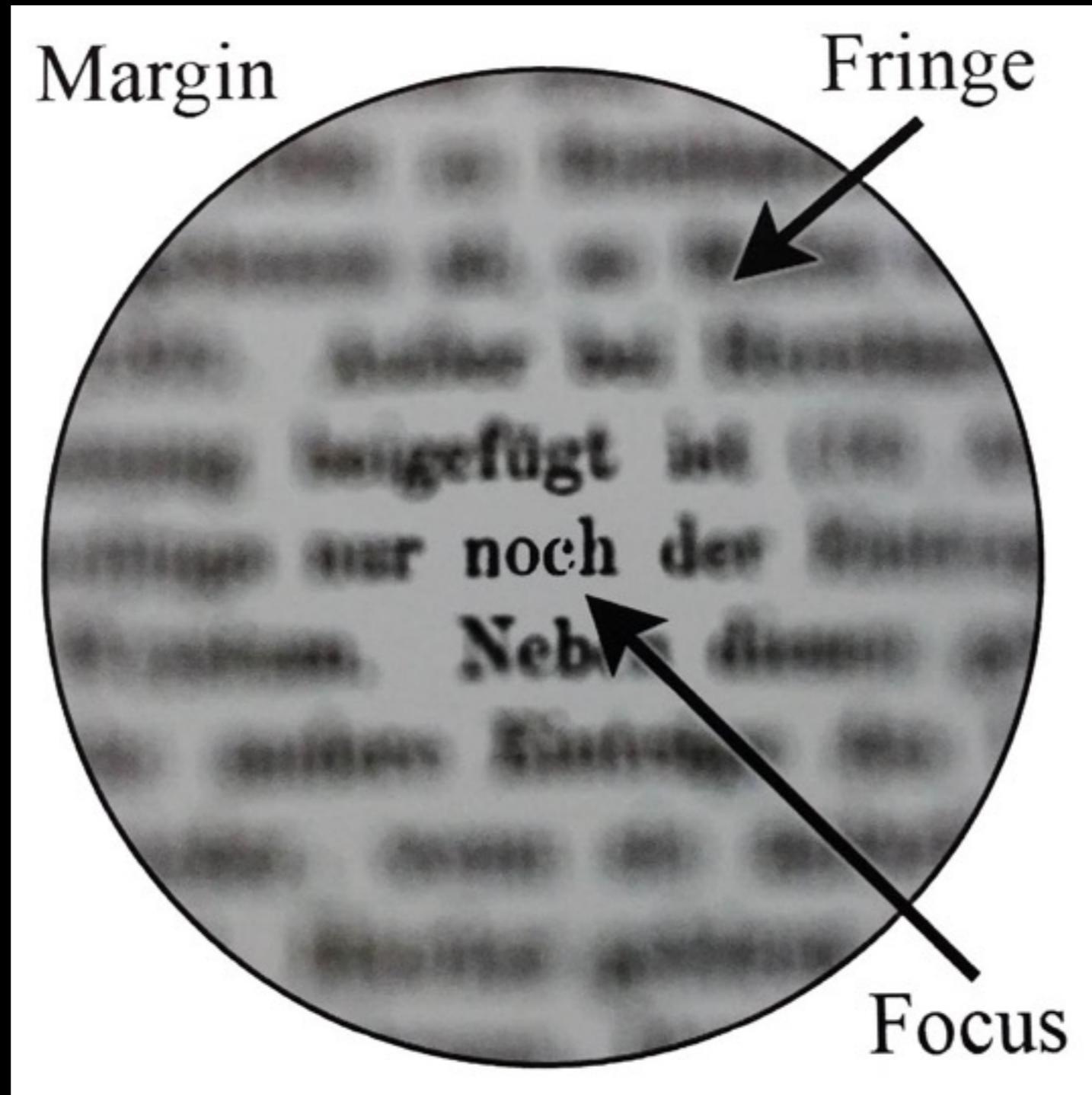
Color is NOT Real



Vision Is Like a Camera, Right? Nope!



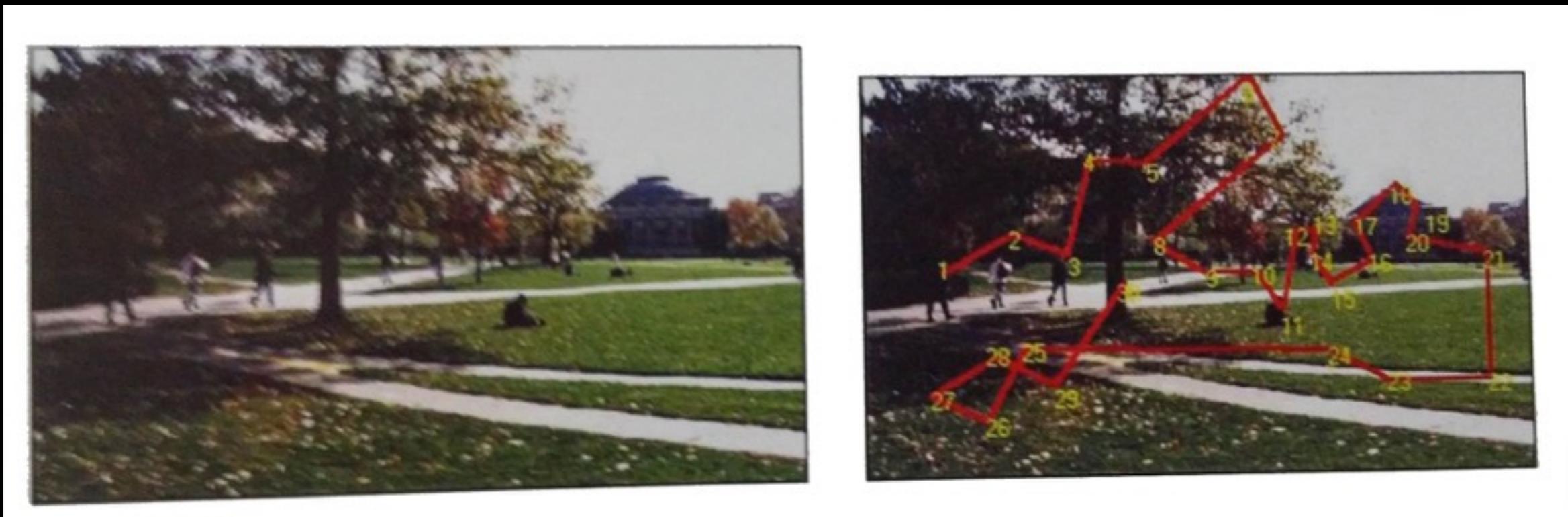
Foveation



We Scan Our Environment

Vision is not continuous

The brain puts together a continuous visual experience from a sequence of fixations and saccades.



Occulometers





BEYOND EYE TRACKING™

ATTENTION TOOL®
ALLEGRIQUO TOOL

EYE TRACKING SOFTWARE FOR RESEARCH & USABILITY

EYE TRACKING & EEG Mercedes-Benz TV Advertisement



iMOTIONS®
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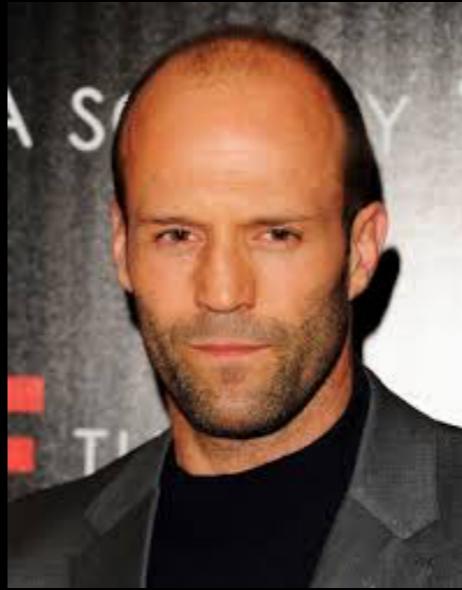
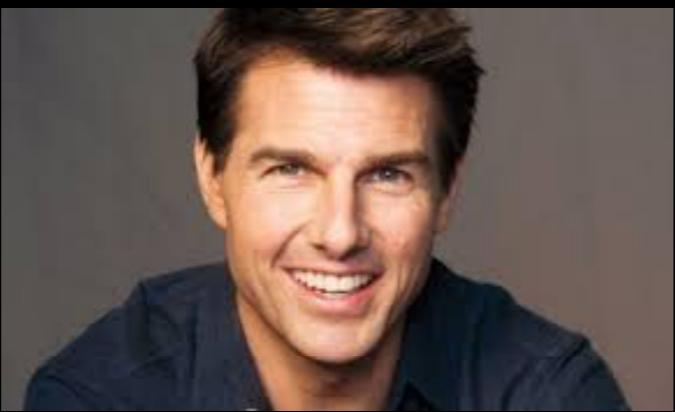
Rapid Serial Visual Presentation



How many can you recognize?

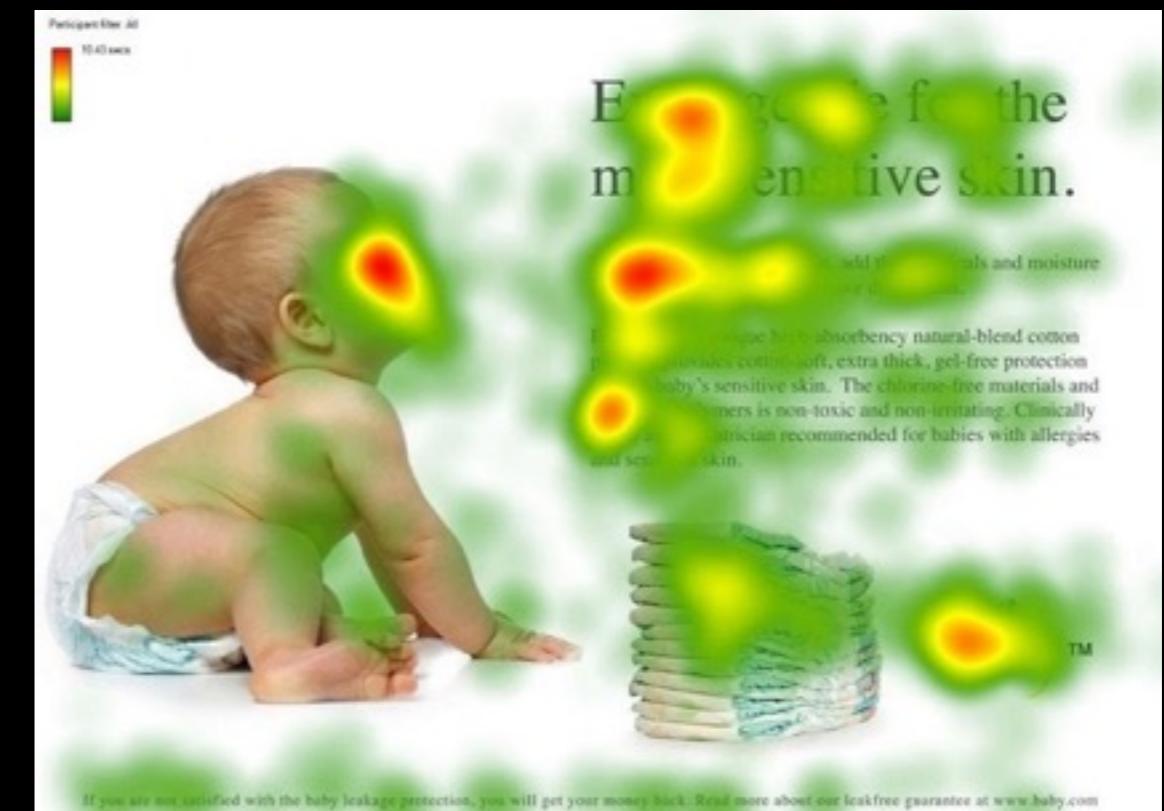
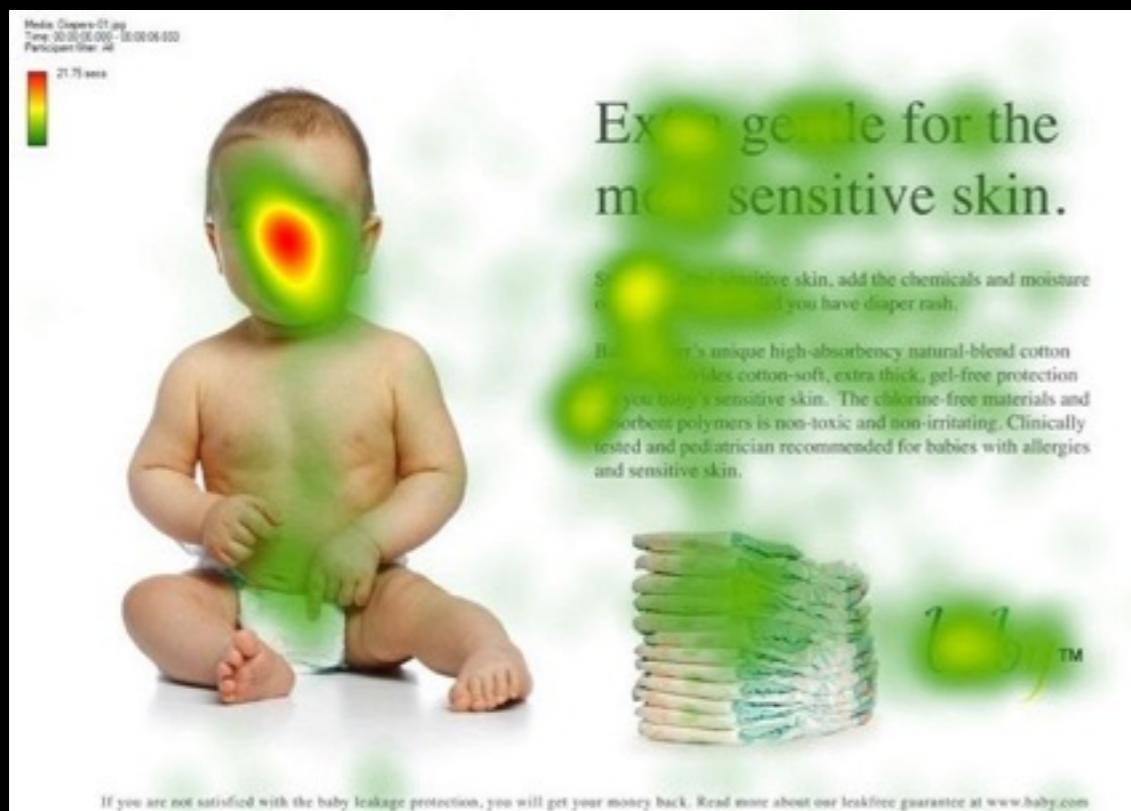


How many can you recognize?



Why are We Drawn to Faces?

- An eye-tracking study with 106 participants show how users are immediately drawn to a face, but if the face is looking in another direction they also tend to pay attention in that direction.
- While considering the Web approach, it may be useful to decide whether there is need to establish emotional connection (face looking right at the user) or (face looking at the product)



Make an Origami Hat

Start with a rectangular piece of paper, put the colored side face down on the table. Fold the paper in half so the two short sides meet and crease the edge of the fold so the paper lays flat. Put the paper on the table with the folded side facing away from you. Fold the two corners of the folded side down the middle so they meet and make two triangles next to each other with a wide rectangle sticking out from below the two triangles. Separate the two pieces sticking out from the bottom of triangles and fold them up on both sides to make the brim of your hat. Open the hat and put it on your head.



Stroop Effect

red blue green yellow

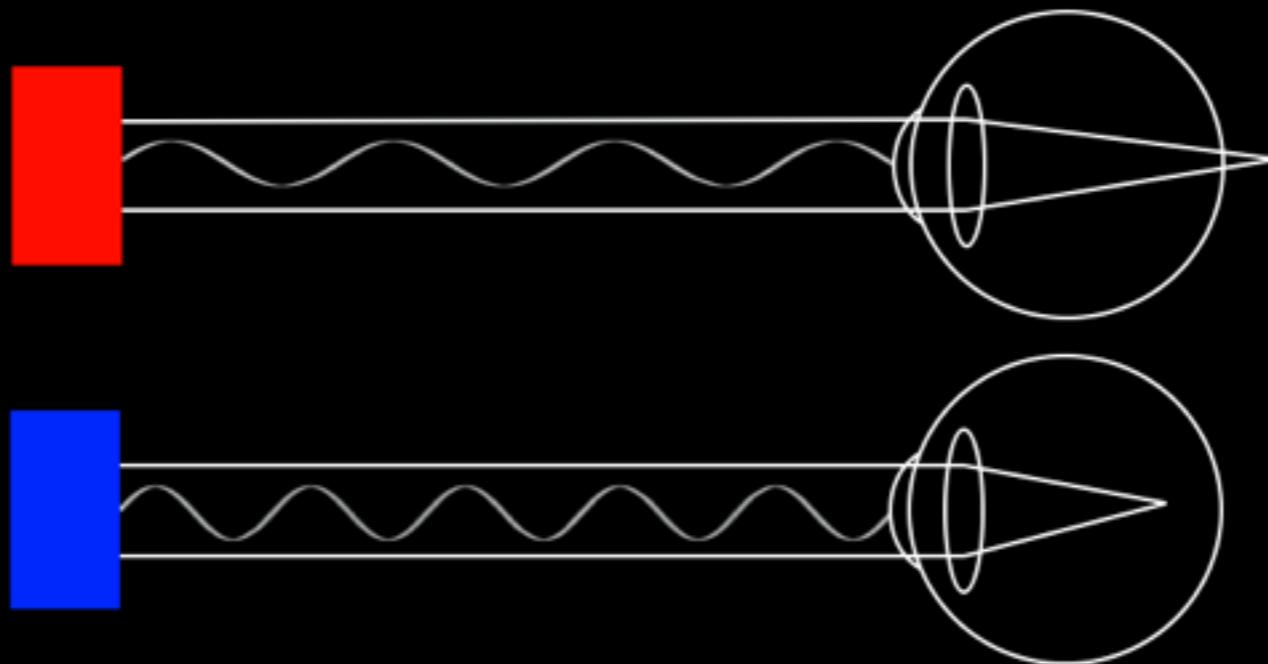
yellow blue red green

red blue green yellow

green yellow red blue

Chromostereopsis

Chromatic Aberration



The pure red primary should never be used on pure blue primary background.

This generates chromostereopsis or depth through color perception. it also create reading difficulties

The pure blue primary should never be used on pure red primary background.

This generates chromostereopsis or depth through color perception. it also create reading difficulties

Exercise.

Draw a Coffee cup



Intellectual

Selective Attention and Inattentional Blindness

Read the words in this paragraph that are only in **bold**, starting with the word Out.

- **Out** On a deserted **of** island in **all** the South Pacific **the** there is rumored **amazing** to be a **human** ship **abilities**, wrecked treasure **the** chest of **ability** gold and **to** jewels. A **select** map to **what** the ship **we** wreck was **pay** found in **attention** London, **to** but no one **is** has ever **surely** been able to **one** locate the of actual treasure **our** box. Clint Eastwood **most** plans make a trip to the island to try to find the secret box **impressive**.



Divided Attention

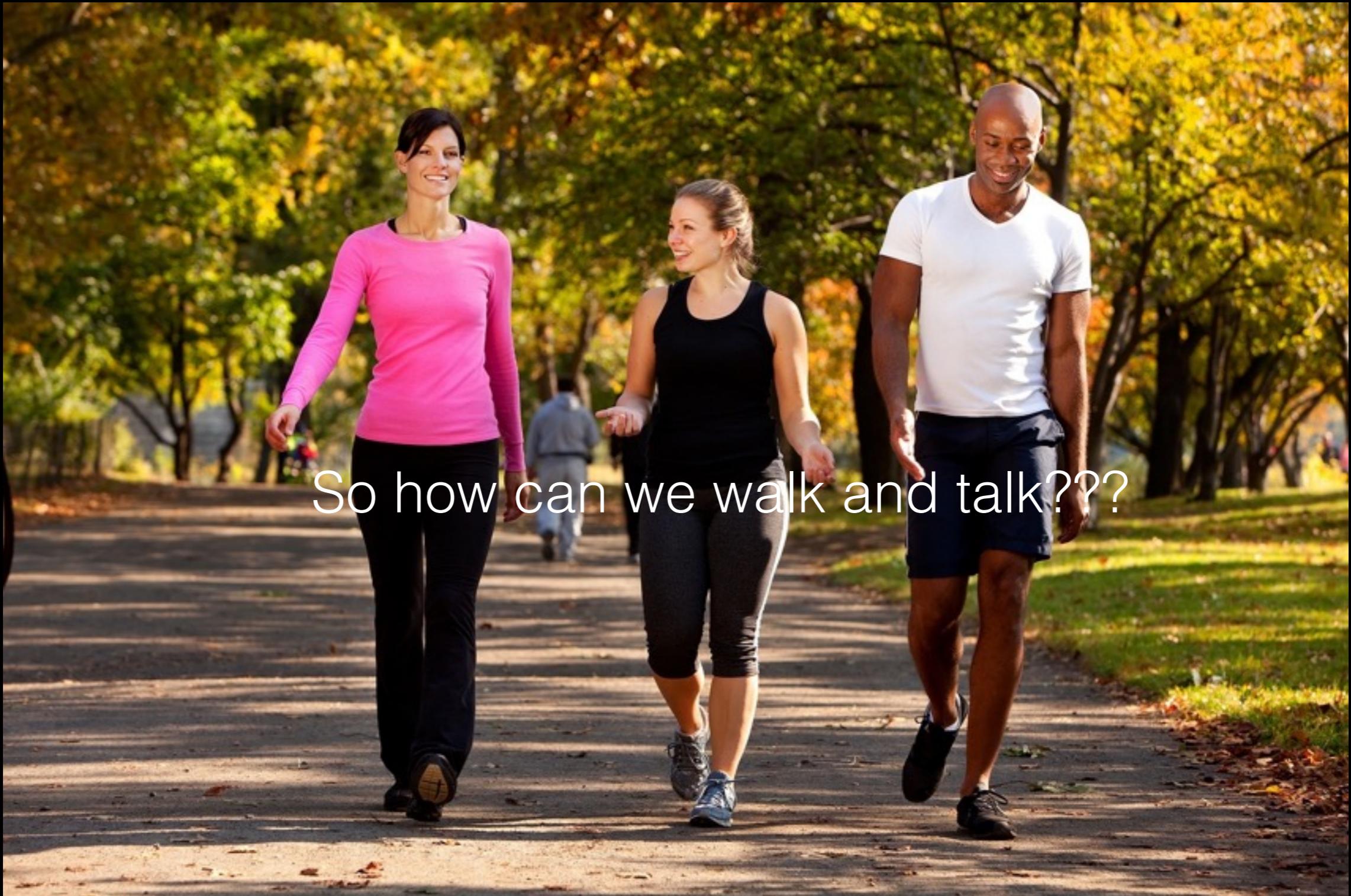
You cannot respond to two things at once. You can respond to one and perceive another.

- Hard to read and listen to words
- Easier to do a motor task and listen to words (e.g., move cursor in screen)
- Listen to instrumental music and read - OK
- Listen to music with words and read - Hard

if you respond and perceive at the same time, what
us happening???



We Are Single Channel Processors



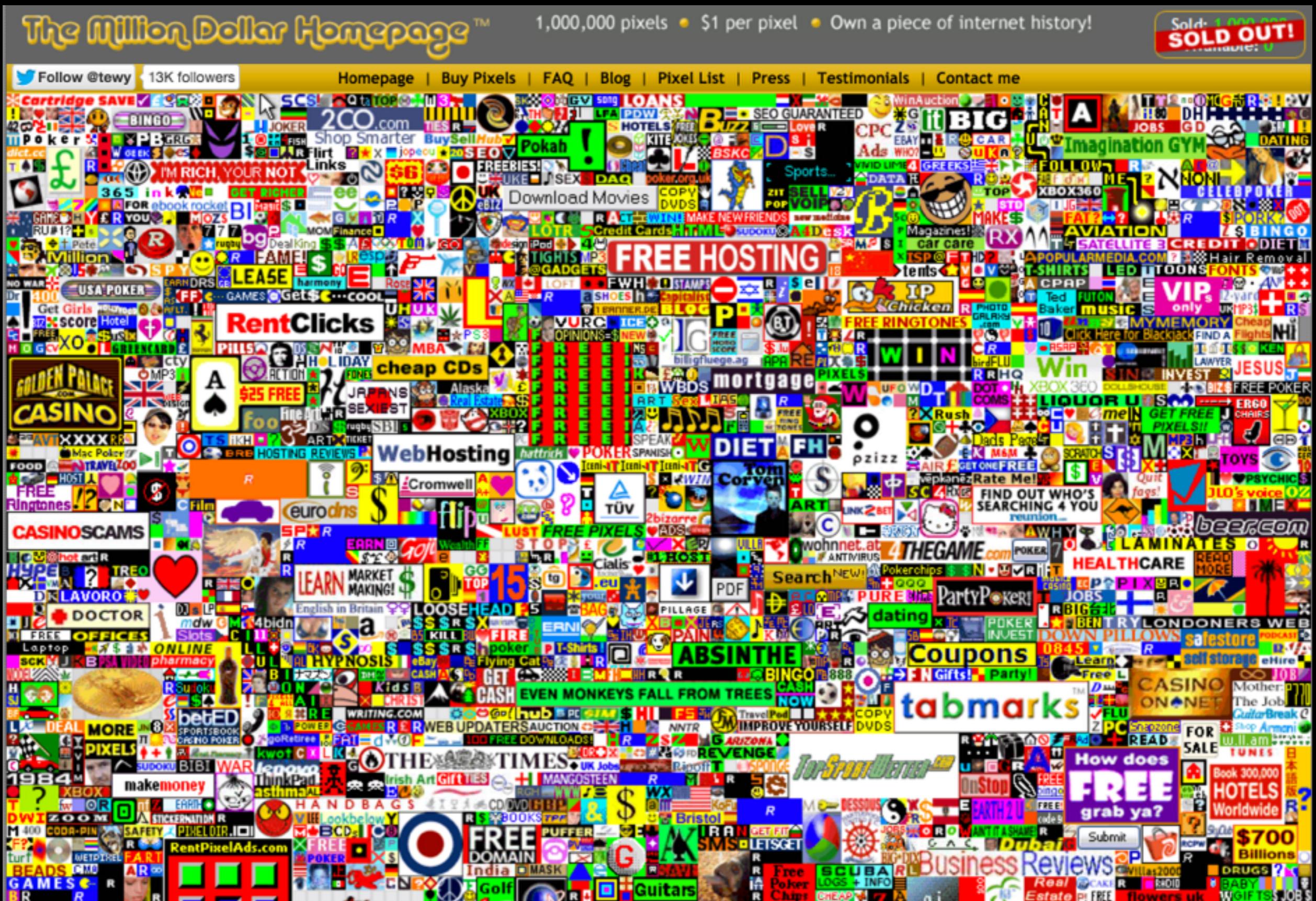
So how can we walk and talk???

Exercise: Child Resistant Safety

- Design a child-resistant safety for a revolver that will not reduce reaction time much

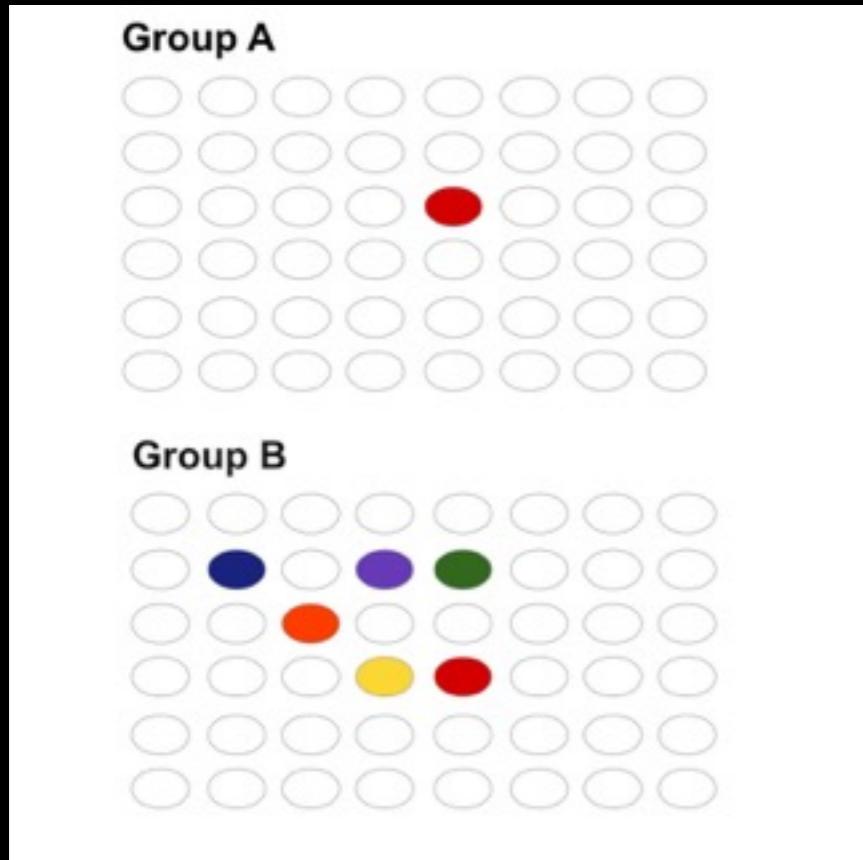


Noise



Color Use Create Visual and Intellectual Load

- More than 5-6 colors in a display degrade detection (signal detection theory).



Effects of Stress on Performance: Yerkes-Dodson Law

Most stressors degrade performance most of the time, but not always.

- Stressors act as a distraction.
- Anxiety, noise, and perceived danger make short term memory less effective.
- Under stress, people will perform an unsuccessful task over and over.
- Stress causes cognitive narrowing some people do not think clearly.

- คนเครียด จะดูกราวนาระวาย ว่ากุนใจ
- ความกังวล, เสียงรบกวน, การรับรู้
อันตราย ทำให้ STM ไม่ทำงาน
- ภายในได้ความดัน คนเราจะเริ่มวางแผนและ
ลงเรืออย่าง
- ความเครียดทำให้คุณมองแคบลง และเกิด
ไม่ให้ถูกวิน

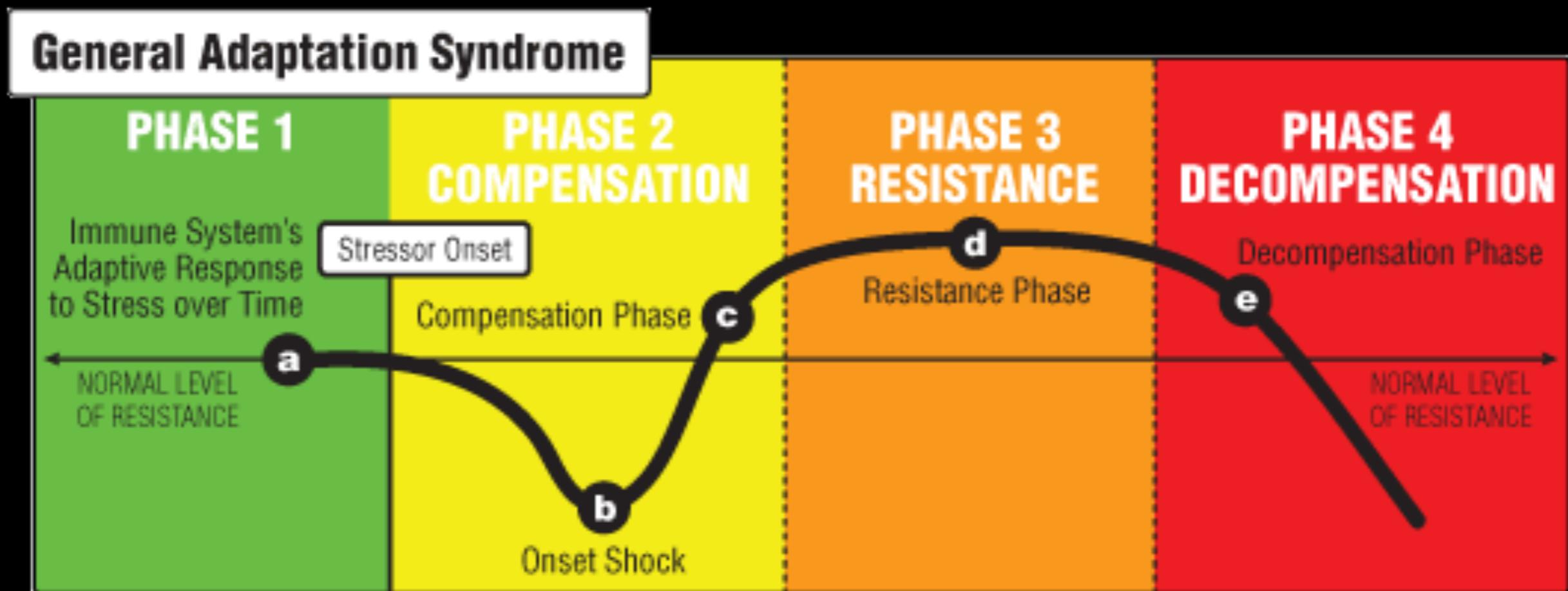


Lots of Things Cause Stress

- Noise
- Vibration
- Heat
- Cold
- Dim light
- Anxiety
- Frustration
- Anger
- Time Pressure



Stress Over Time



Exercise. Design a Pocket Radio for use by downed pilots.

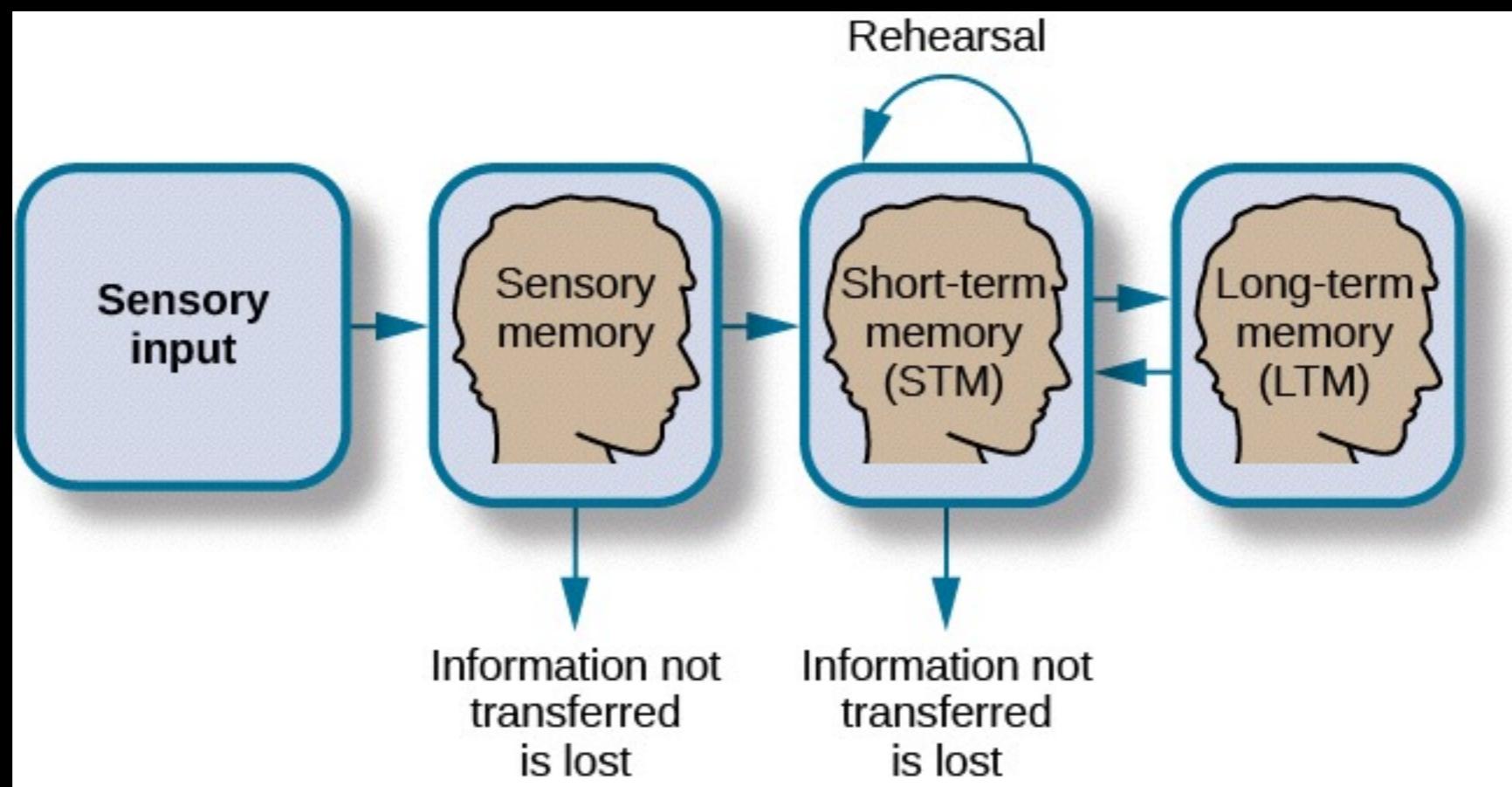
- **Functions:**
- On/Off switch
- Volume Control
- Send 'I'm Here (Location) and Need Help'
- Voice Communication
- Battery Low Indication



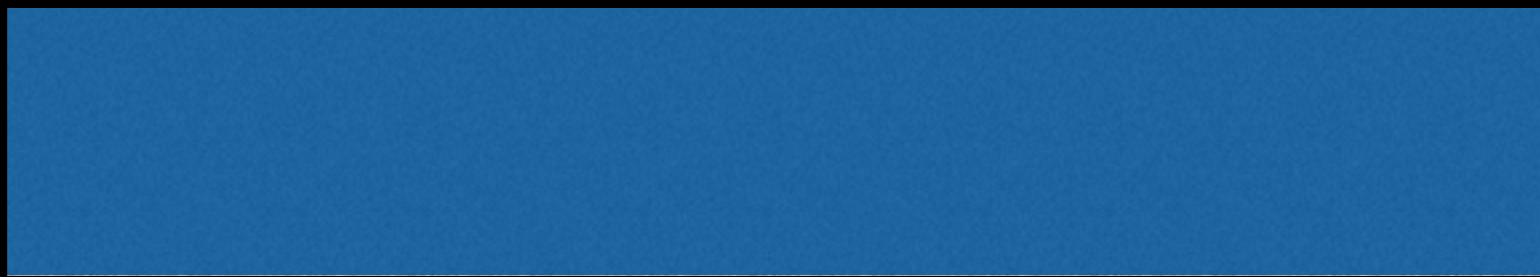
Memory

Memory is Complex

- You think you just remember stuff?
- You have THREE distinct types of memory, with progressively less detail and accuracy



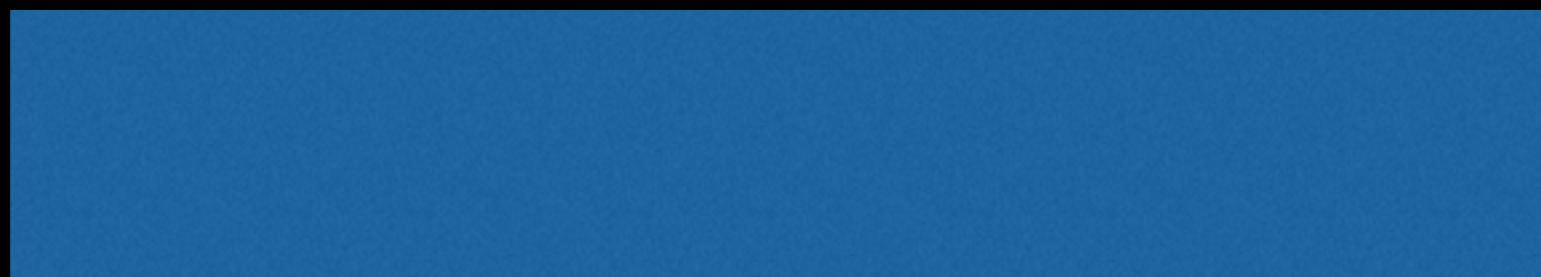
Short-term memory



Short-term memory

4552968305335806

Short-term memory



Short-term memory

4552 9683 0533 5806

Long-Term Memory

Where information is permanently stored. Not just one place in the brain.

Once information goes from Short-Term Memory into Long-Term Memory you can never go back to what was originally in Sensory Information Storage or Short-Term Memory. You can only retrieve the interpretation.

There are 10 billion neurons that store information.
There are 100 TRILLION connections.
So there's no limit on amount of information stored in LTM.
There is a limit on getting it in and getting it out.

You Must Design Things to Help People Remember Stuff

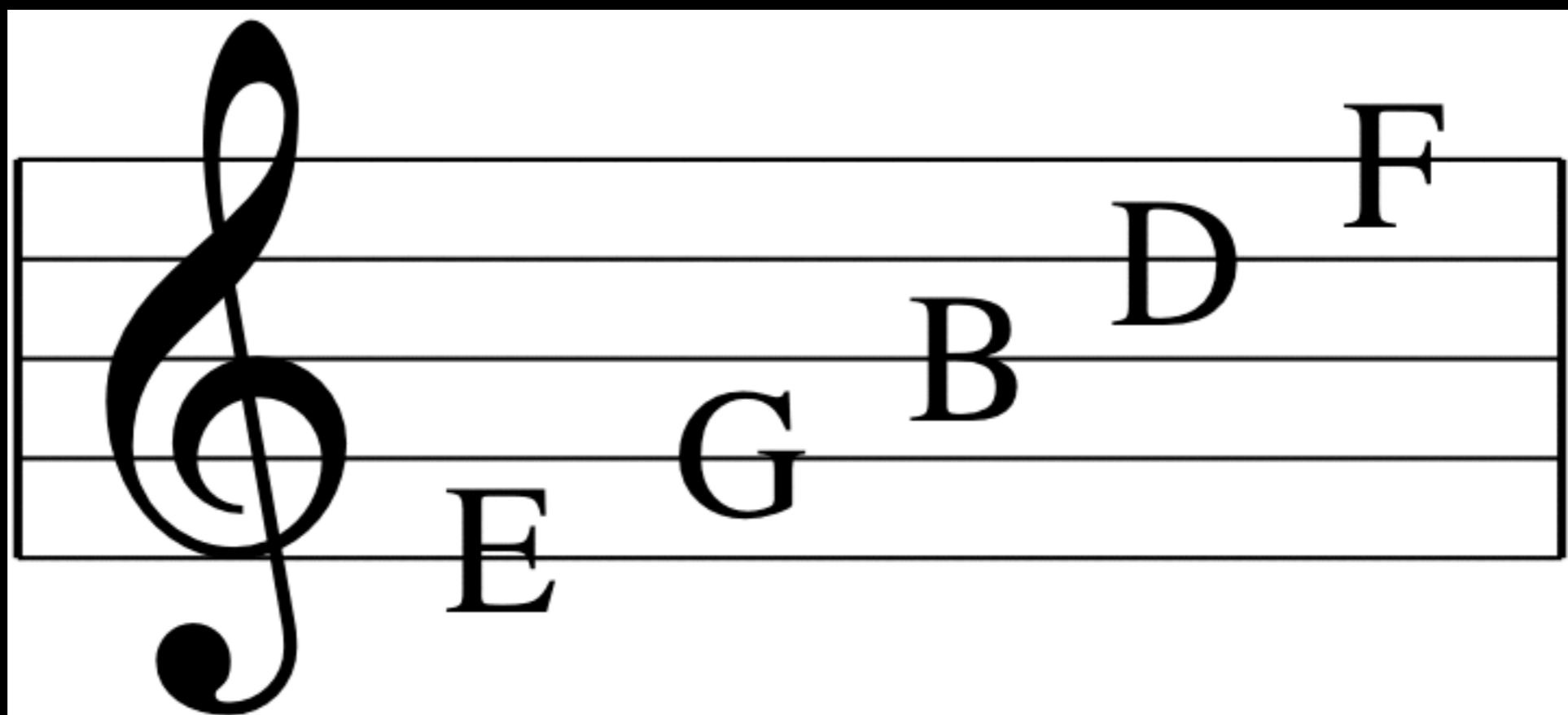
Memory performance is based on two important factors:

- The type of source
- The type of encoding activity the person uses



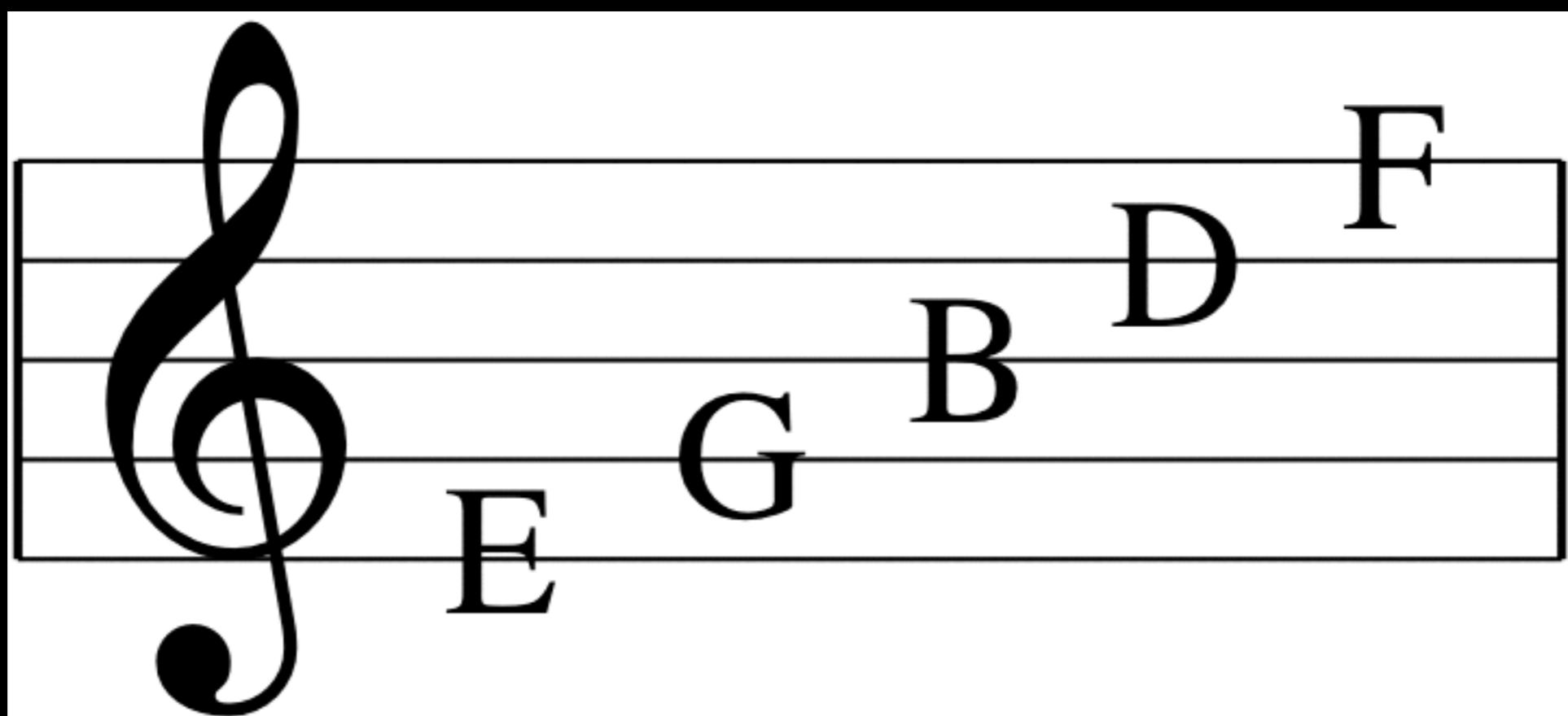
We encode in different sensory forms (e.g., as a sound, an image, or movement pattern). You can also encode in other ways, as in using a metaphor (it is like something else).

Mnemonics



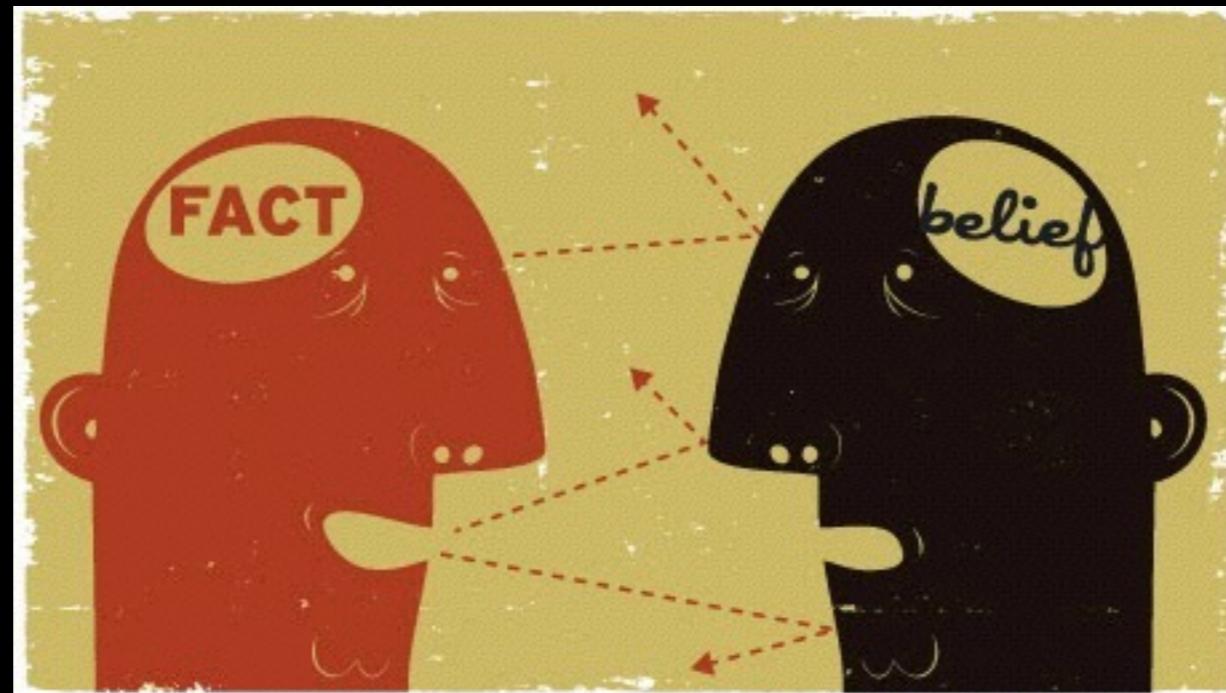
Mnemonics

(Every Good Boy Does Fine)



Confirmation Bias

- Once you start thinking about a problem one way, those circuits get activated and strengthened. This makes retrieval easier, but also causes ruts





Motor

You Do Not Move the Way You Think You Do

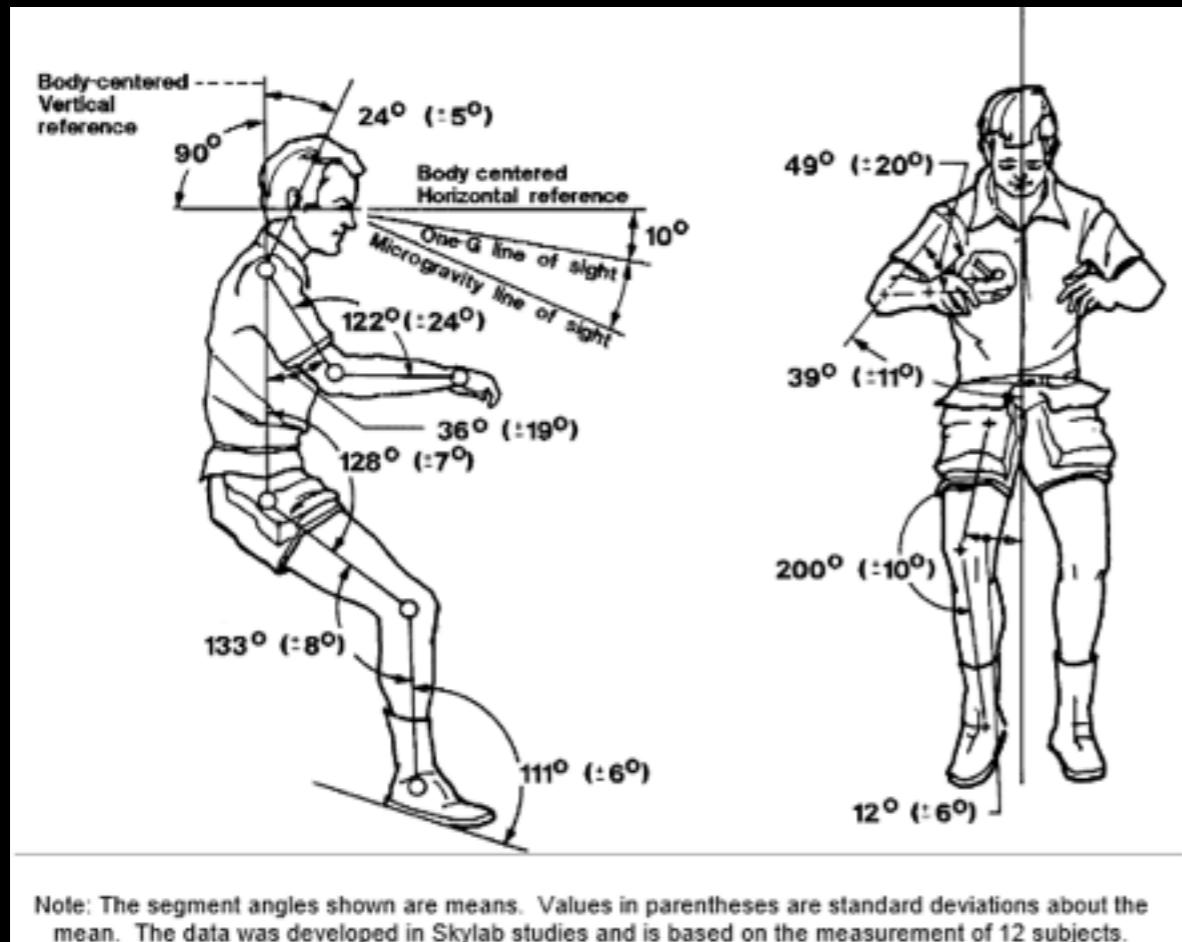
- Voluntary Movement
- Motor Program
- Reflex
- ‘Automatic’ Movement

Sign Your name



Realistic Modeling

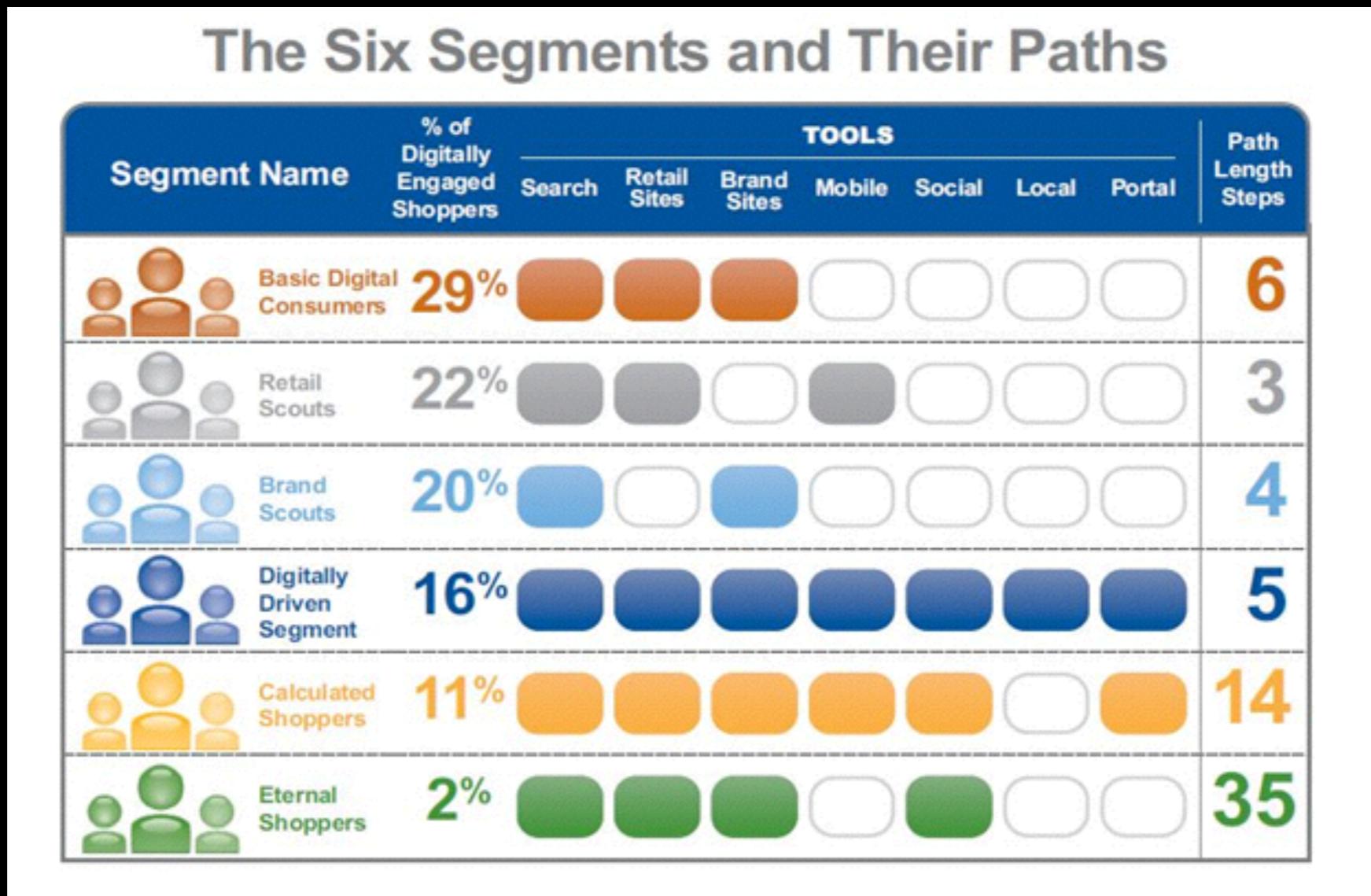
- The stick figure may not represent the real physical position of user.





Know Thy Users

Idea of Segments



Do Different Segment Need Different Design

Farmer USA



Farmer Bangladesh



When OK Is Not OK



Russia = 0

China = 3

USA & UK = OK

Lebanon & Germany = Great!

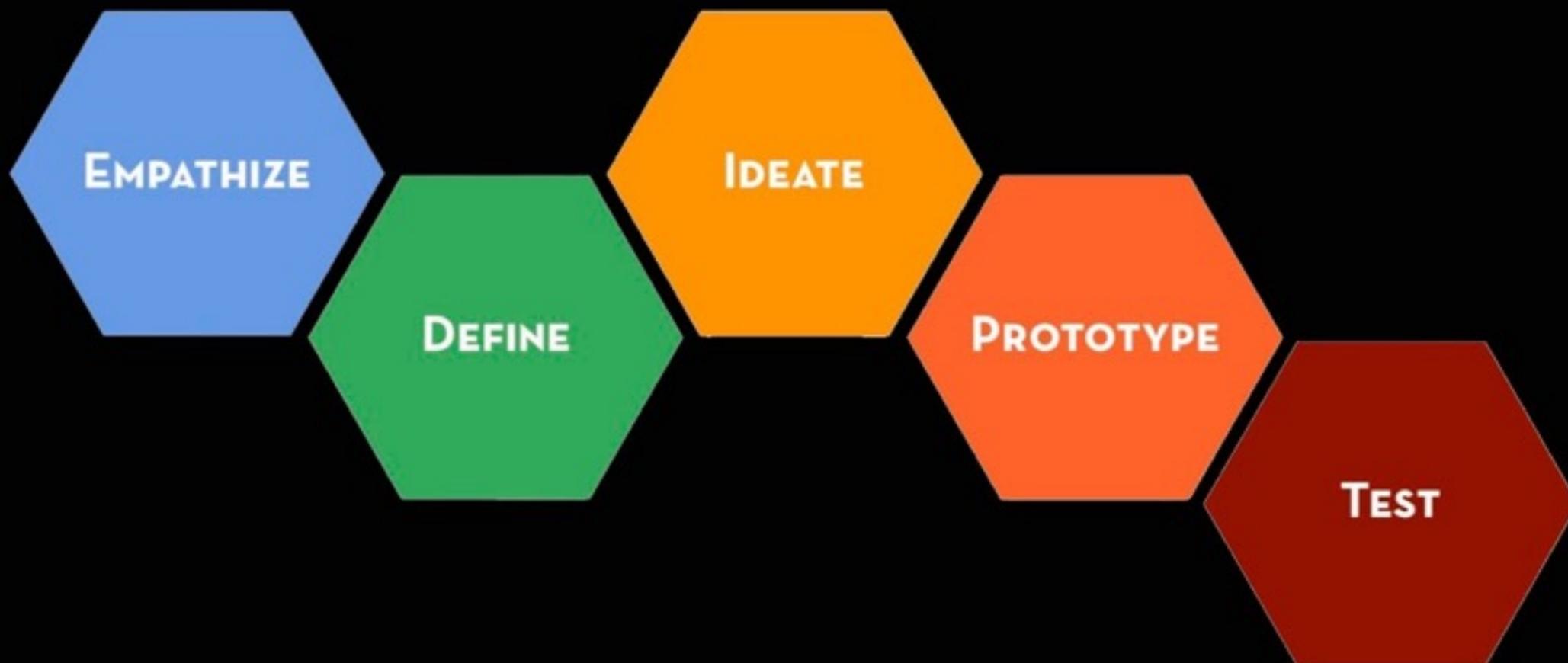
Japan = Money

Brazil = Very Bad insult!!!

Tunisia = I will KILL YOU!

Design Thinking

Design Thinking



Clark Andrews

AGE 26
OCCUPATION Software Developer
STATUS Single
LOCATION San Jose, CA
TIER Experiment Hacker
ARCHETYPE The Computer Nerd

Friendly Clever Go-Getter



"I feel like there's a smarter way for me to transition into a healthier lifestyle."

| Motivations | Personality |
|-------------|-------------|
| Incentive | Extrovert |
| Fear | Introvert |
| Achievement | Sensing |
| Growth | Intuition |
| Power | Thinking |
| Social | Feeling |
| | Judging |
| | Perceiving |

Goals

- To cut down on unhealthy eating and drinking habits
- To measure multiple aspects of life more scientifically
- To set goals and see and make positive impacts on his life

Frustrations

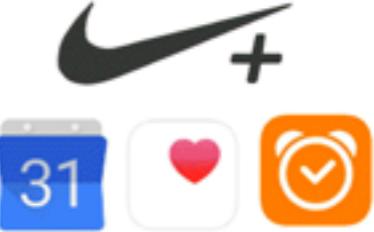
- Unfamiliar with wearable technology
- Saturated tracking market
- Manual tracking is too time consuming

Bio

Aaron is a systems software developer, a "data junkie" and for the past couple years, has been very interested in tracking aspects of his health and performance. Aaron wants to track his mood, happiness, sleep quality and how his eating and exercise habits affects his well being. Although he only drinks occasionally with friends on the weekend, he would like to cut down on alcohol intake.

| Technology |
|-----------------|
| IT & Internet |
| Software |
| Mobile Apps |
| Social Networks |

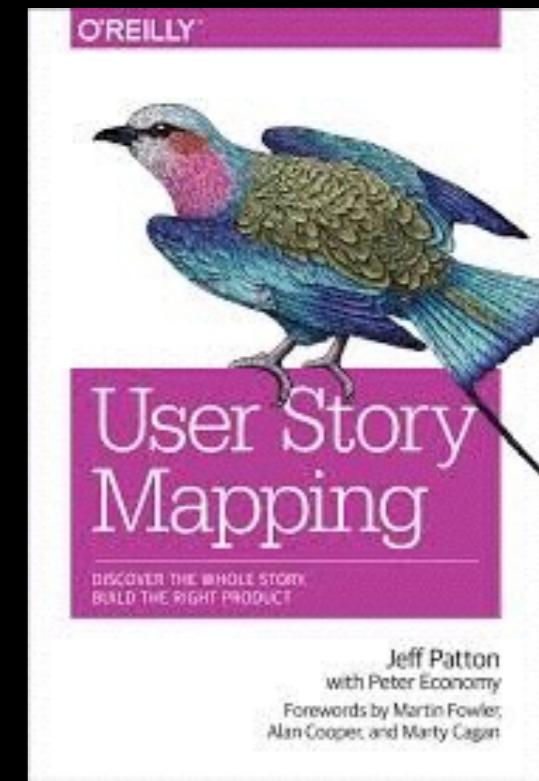
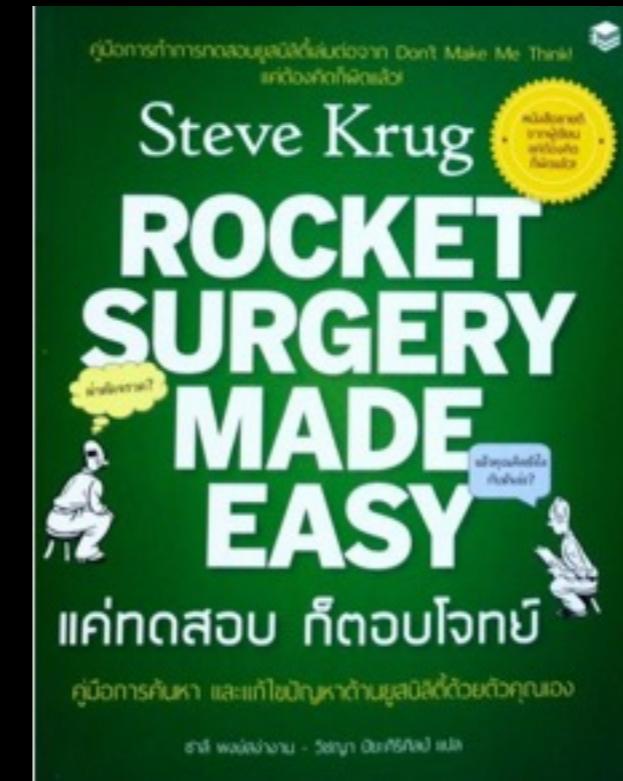
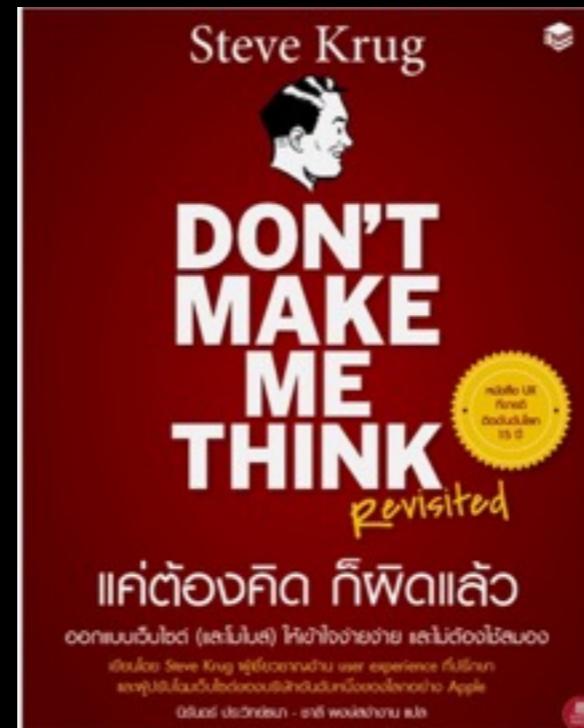
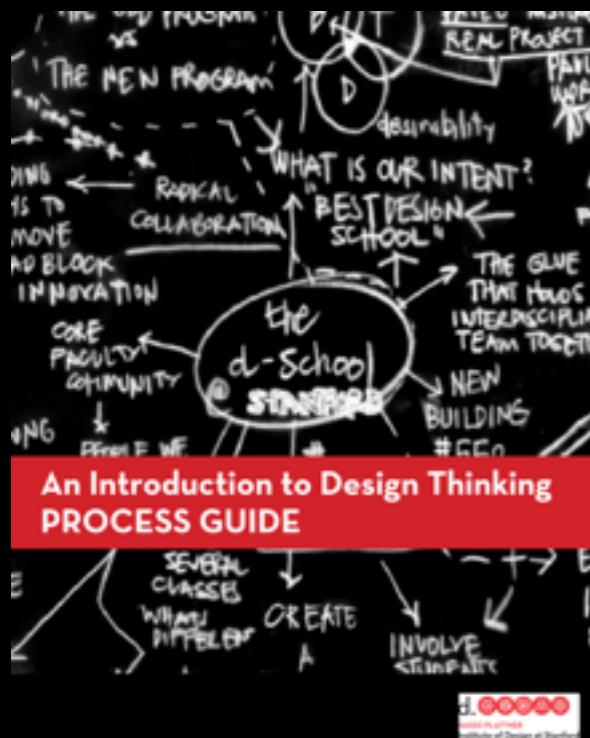
Brands



Persona Talking

Paper Prototype

ແນະໜໍາຫັ້ງສືອ



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