

DESIGN & **PATIENT SAFETY**

2015 Richard & Hinda Rosenthal Symposium
National Academy of Medicine

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IDEO

600+ People,
10 LOCATIONS,
35 YEARS OF
INNOVATION,
ONE APPLE
MOUSE



DESIGN IMPACT ON THE WORLD

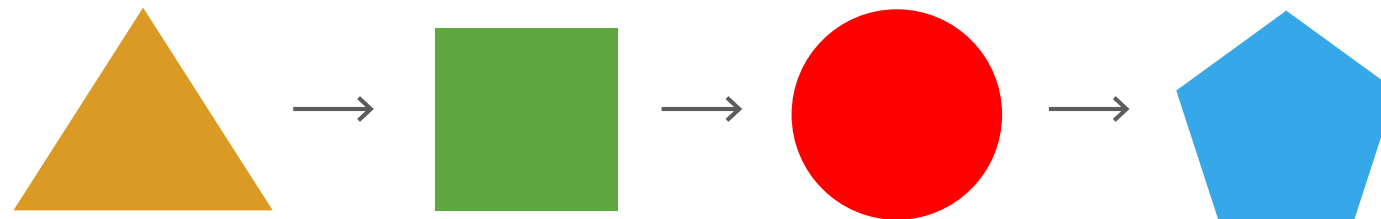


1. TEAM OBAMA 2. GOOGLE 3. HULU 4. APPLE 5. CISCO TECHNOLOGIES 6. INTEL 7. PURE DIGITAL TECHNOLOGIES 8. WUXI PHARMATECH 9. AMAZON 10. IDEO 11. GE 12. HEWLETT-PACKARD 13. NOKIA 14. GILEAD SCIENCES 15. FACEBOOK 16. NEXTERA ENERGY RESOURCES 17. Q-CELLS 18. FIRST SOLAR 19. IBM 20. ZAPPOS 21. NINTENDO 22. DISNEY 23. CRISPIN PORTER + BOGUSKY 24. TBWA\WORLDWIDE 25. NEW ENGLAND SPORTS VENTURES 26. DSM 27. NIKE 28. NPR 29. BARBARIAN GROUP 30. W.L. GORE & ASSOCIATES 31. BUSBOY PRODUCTIONS 32. SKIDMORE, OWINGS & MERRILL 33. WAL-MART

DESIGN THINKING

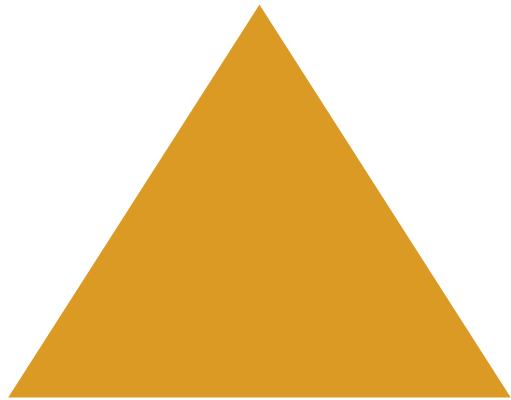
(non-rigorous, working definition)

Design Thinking is the process or mindset of applying methods typical of design to solve human problems, especially problems that have not been traditionally considered objects of design.



INSPIRATION

INSIGHT



How do I
approach it?



IDEATION

STRATEGY

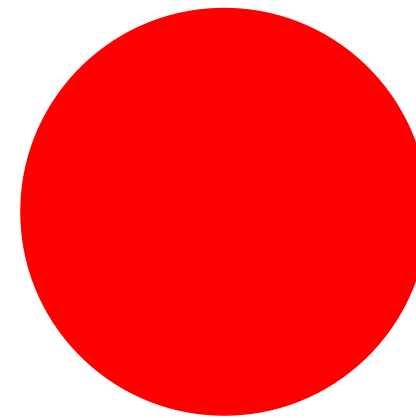


How do I
interpret it and
express my ideas?



ITERATION

DESIGN

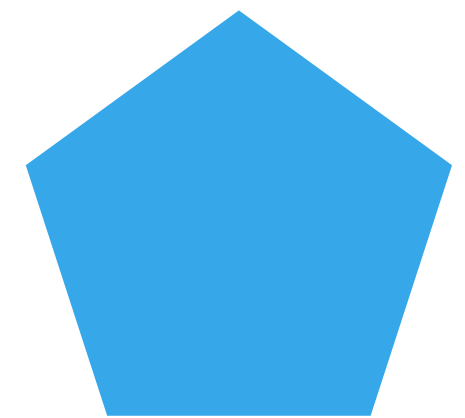


How do I test it
with users and
refine it?



COMMUNICATION

BUILD / SCALE



How do I put
my idea into the
world?

INSPIRATION

INSIGHT

IDEATION

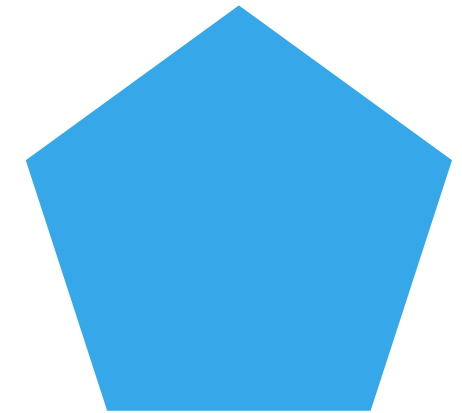
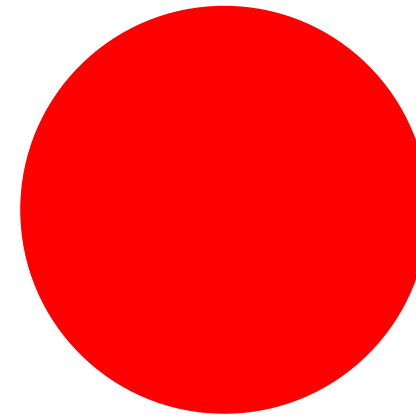
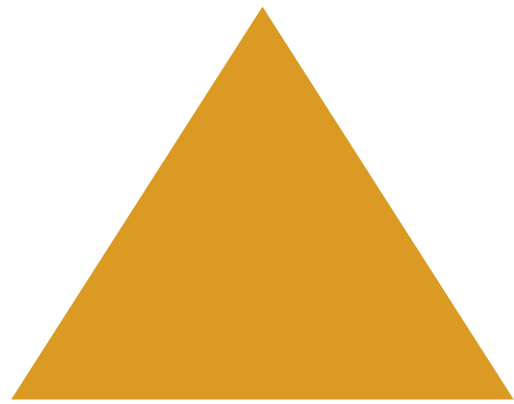
STRATEGY

ITERATION

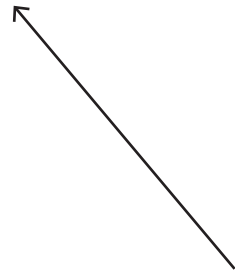
DESIGN

COMMUNICATION

BUILD / SCALE



We get inspired by people

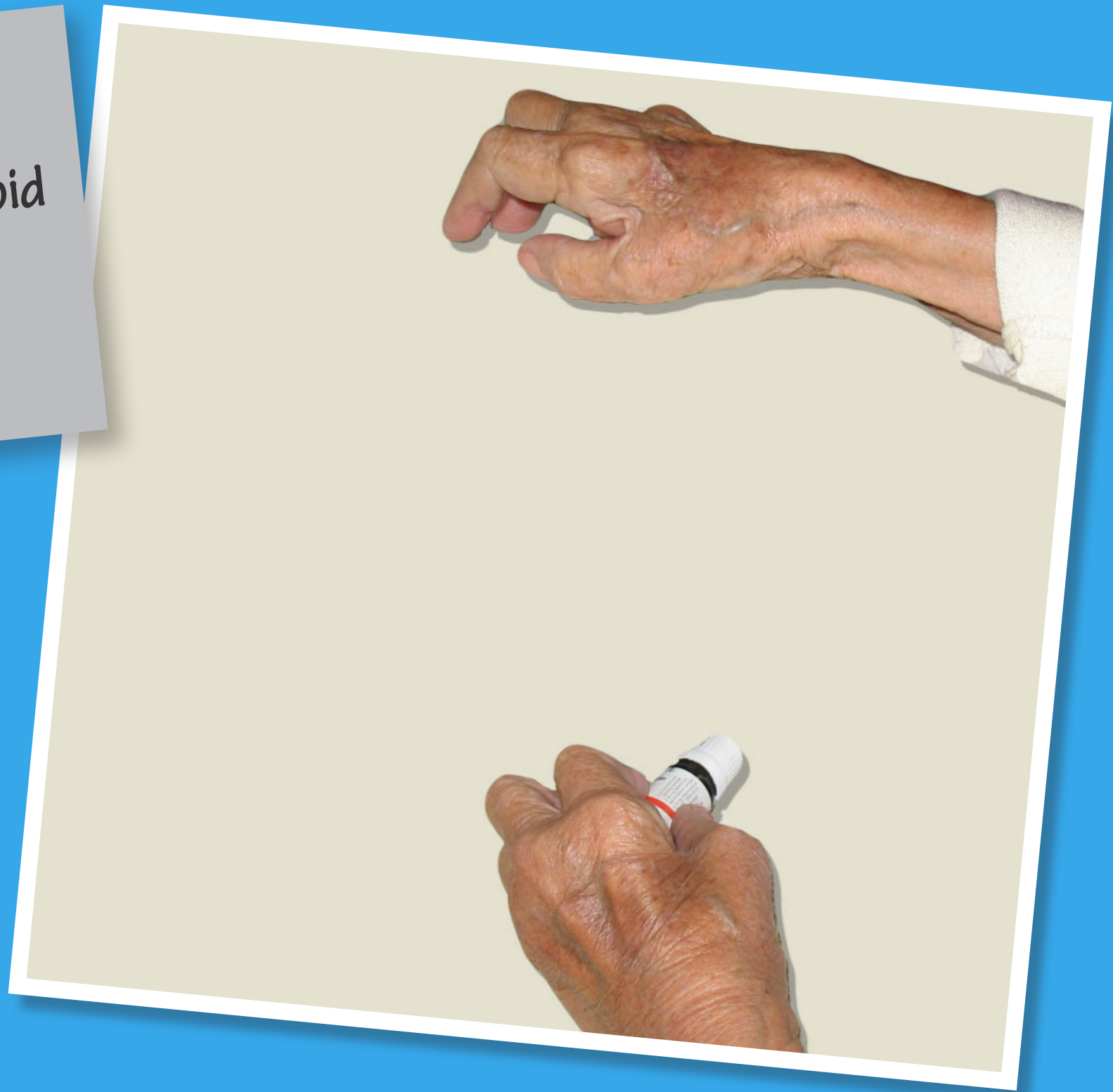


1

ASK
PEOPLE

She has rheumatoid arthritis.

Can she open her medication bottle?



She has rheumatoid arthritis.

Can she open her medication bottle?

Yes. She can!



People don't do what **they say** they do.

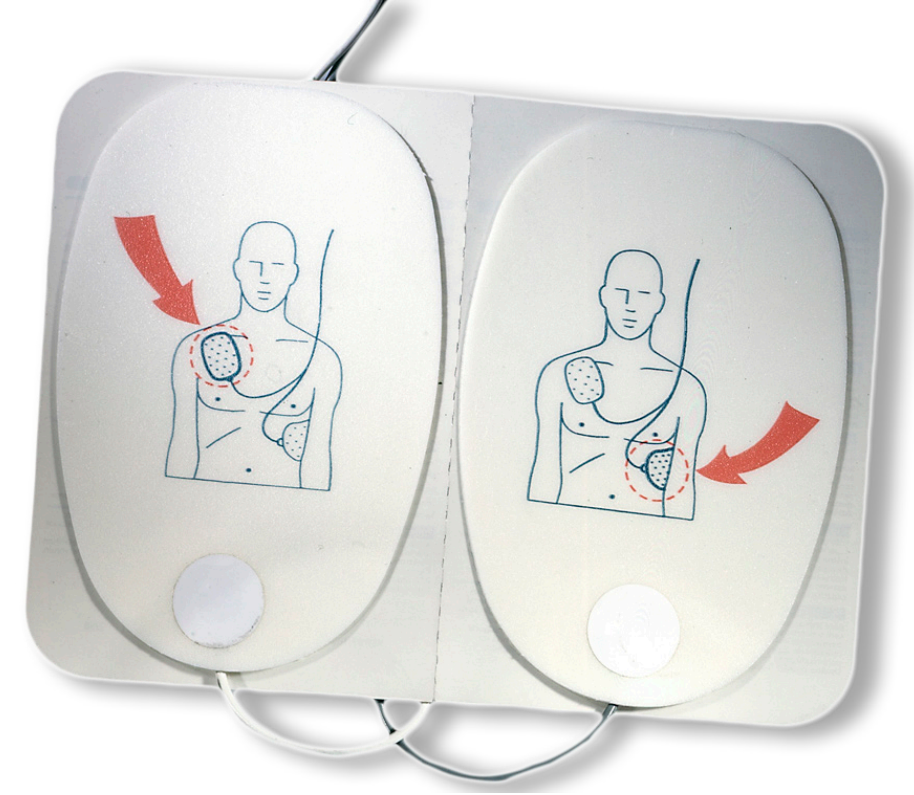
People don't do what **we think** they do.

People don't do what **they think** they do.

2

CREATE
SIMULATIONS OF
THE EXPERIENCE

HEARTSTREAM DEFIBRILLATOR



HEARTSTREAM > HP AGILENT > PHILIPS + LAERDAL



3

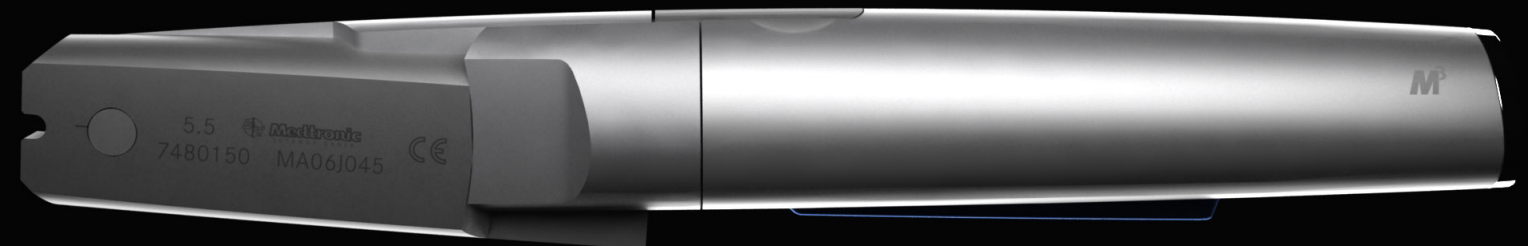
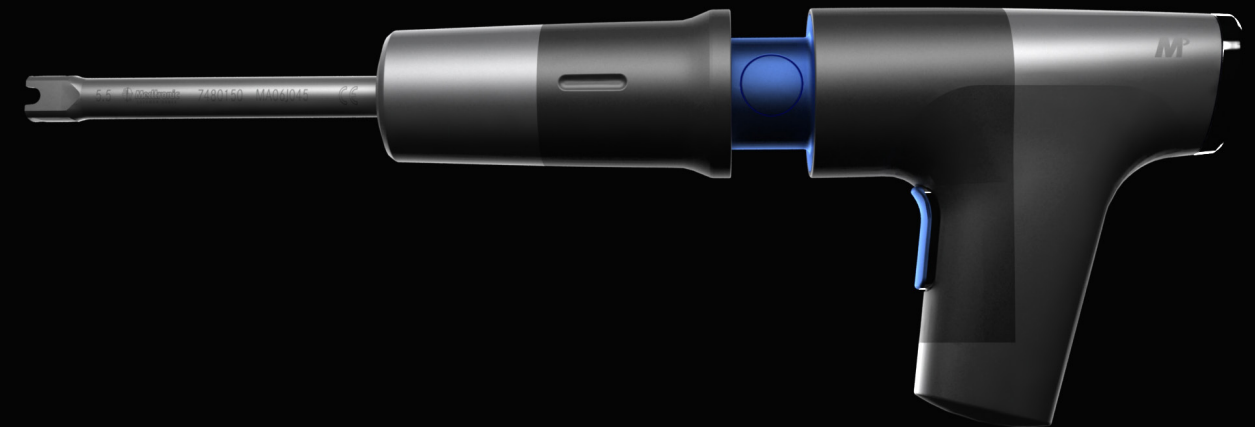
OBSERVE
PEOPLE
IN CONTEXT



TIP: PAY ATTENTION TO WORKAROUNDS



MEDTRONIC AI POWERED TOOLS FOR SPINAL SURGERY



4

USE
ANALOGIES

MGH THE OPERATING ROOM OF THE FUTURE



NASCAR PIT STOP



TEAM 14 1.3

BARRIER

NASCAR
RACEPOINTS

5

DEVELOP
EMPATHY

PHARMA LABELS HOW DOES IT FEEL TO BE ILLITERATE?



PHARMA LABELS HOW DOES IT FEEL LIKE TO BE ILLITERATE?

Please complete the following form prior to pre-authorization for your first caffeine infusion (all questions required):

Name: _____

Insurance Provider: _____

Insurance #: _____

Co-pay: _____

Wake-up Emergency Contact:

Name: _____

Place of sleep: _____

Relationship: _____

HABITUAL INDICATORS

1. When you wake up, do you brush your teeth, use the toilet or eat breakfast first?

2. What side of the bed do you sleep on? Why?

3. If you sleep in your bed with another person, what percentage of the bed do you use versus your sleeping partner?

4. When stepping out of bed, do you first land on your right or left foot?

5. Do you wear socks while sleeping? If so, why?

6. When you set your alarm, do you use even intervals such as 7:00, 7:15, 7:30 or do you set it randomly at times such as 7:02, 7:14, 7:23? Please circle one.

EVEN

RANDOM

7. Do you use shampoo and conditioner daily, once per week, or other?

8. Do you prefer the toilet paper to be mounted such that the toilet paper rolls off the top of the roll or under the bottom of the roll?

9. When is the last time that you replaced your pillow(s)?

10. How many pillows are on your bed? While sleeping? While not sleeping?

11. If you remove pillows from your bed while sleeping, where do you put them?

12. Do you dream in color, black and white or do you not know?

13. Do you get easily awoken by sounds of things going bump in the night?

14. Do you do your best or worst thinking in the shower?

15. Do you nap during the day? If so, at what time and for how long?

16. Do you wake-up before or after your significant other, if applicable?

17. Do you read in bed (please circle all that apply)? Prior to sleeping? After sleeping? Other times?

18. Exactly how high off the ground is your mattress?
_____ feet _____ inches

19. What mattress type do you prefer (please circle one)? Coil, memory foam, water, futon, other?

20. Please specify the type of slippers and bathrobes that you use.

21. Do you have a TV in your place of sleep? If so, when is it used?

22. Do you drool on your pillow while sleeping?

a. Once per week

b. Twice per week

c. Each and every day

23. On a scale of 1 to 5, how do you feel about waking up in the morning?

(HATE) 1 2 3 4 5 (LOVE)

24. Would you prefer to be woken up by:

a. An alarm that beeps

b. An alarm playing Guns n' Roses

c. An alarm playing the hourly news

d. A light slowly pulsing at your eyes, increasingly speeding-up

e. A animal making noises (such as a rooster)

ANOMALISTIC EVALUATIONS

25. Do you believe your malnoia is cacestogenous?

26. Do you recalesce when you have gravedo?

27. In pancratic activities, do you feel scelagia, uredo, palmus or any alteration in fettle?

DIAGNOSTIC RELEVANCIES

I am allergic to (please check all that apply):

___ Peanuts

___ Popcorn

___ Olive Oil

___ Dextrose

___ Rhubarb

___ Candy

___ Broccoli

___ Cornflower

___ Hydrogenations

___ Talcum powder

To be completed by infusion provider:

Signature: _____

Date: _____

25. Do you believe your malnoia is cacestogenous?

26. Do you recalesce when you have gravedo?

27. In pancratic activities, do you feel scelalgia, uredo, palmus or any alteration in fettle?

ONE LAST
EXAMPLE

PillPACK REVOLUTIONIZING THE PHARMACY



THANKS

IDEO

www.ideo.com