

Rethinking

User Experience Design

INNOVATION

What does it
take to make an
innovative leap?





What are the most
Recent Innovations
in your industry?

TEST

What does

innovation

look like?





Marketing Driven

“innovation”

Follow the competition

Incremental addition of features

Microsoft®

equate.



President's Choice®



OMRON.





Brand Driven

“innovation”

Selling a lifestyle

Less about the product design – more about the brand experience

L'ORÉAL®

Johnson's®
baby

RALPH  LAUREN

Coca-Cola

BOSS
HUGO BOSS


verizon





Manufacturing Driven

“innovation”

Speed to market

Maximizing line speeds

Using current physical plants

Minimizing capital equipment costs



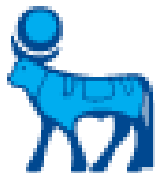
COLGATE-PALMOLIVE COMPANY



AB InBev



NOVARTIS



novo nordisk®

MWV



BIC®





Engineering Driven

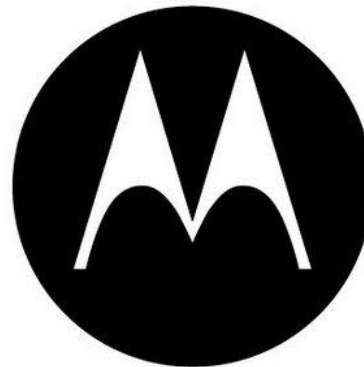
“innovation”

Adding features because you can

Technically driven



BOSE



CATERPILLAR®

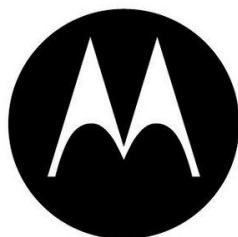
BANG & OLUFSEN **B&O**



Conflicted

“innovation”

Companies that are lucky and/or inconsistent



TEST

What **Inhibits Innovation**
in Your Company?





User Centered

innovation

Driven by how people think, feel & behave

Designing the entire consumer experience


FABER-CASTELL
since 1761



Google™



 **Johnson**
A FAMILY COMPANY

PRIUS



“What we sell is the ability for a 43-year-old accountant to dress in black leather, ride through small towns, and have people be afraid of him.”



Executive



What does it take
to *CONNECT* with
customers?



User Centered INNOVATION

Think
Feel
Behave





you

HumanResearch



Demographics

Psychographics

Who... What... When... Why... How...



Millenials

ages 10-30



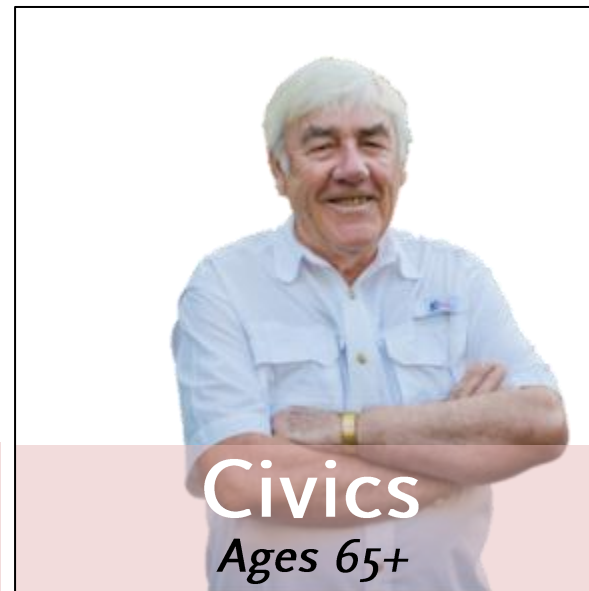
Gen Xer's

ages 31-45



Boomers

ages 46-64



Civics

Ages 65+



**ARTIFACT
ANALYSIS**



ETHNOGRAPHY



OBSERVATIONS



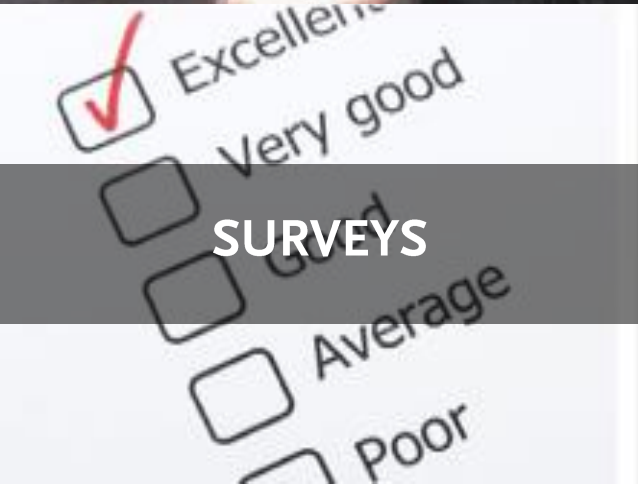
SHADOWING



Tools & Techniques



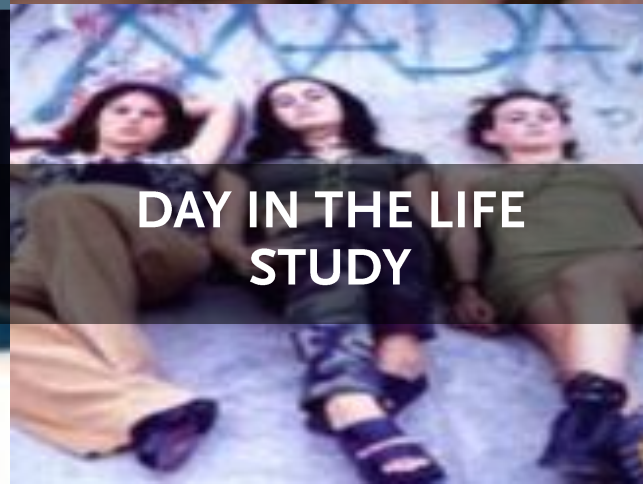
**LITERATURE
REVIEW**



SURVEYS



**ONE-ON-ONE
INTERVIEW**



**DAY IN THE LIFE
STUDY**

DAY IN THE LIFE // WENDY



Jane is 37 years old. She is single, living in the St. Louis area. Ten years ago, Jane was diagnosed with multiple sclerosis. She works full time as a graphic designer in the business district, and very much enjoys it. Having been raised in St. Louis, she grew up as a large Cardinals baseball fan and loves following her "Redbirds". She remains close to her parents. They live in a neighboring suburb which makes it simple to get together often for small family gatherings.



WAKE UP

Wake up feeling pain in your hip from your get change due to your foot drag...hope you won't need a hip replacement down the road.



SHOWER

Close the book and take a quick shower. Remember not to make the water too hot...hot water takes too much out of you. Show your legs. Wish you had a stool in the shower because you can't lift your left leg anymore and your balance is off especially when you are in the shower. Note to self, install grab bars.



TAKE YOUR SHOT

Into the kitchen for your daily shot. Glad you remembered to leave it out of the fridge last night. You don't remember much these days. Because you aren't quite ready emotionally for the shot...start the coffee. Enough procrastination...time for the shot. OK, that is done and you can pour yourself that cup of joe and take your pills.



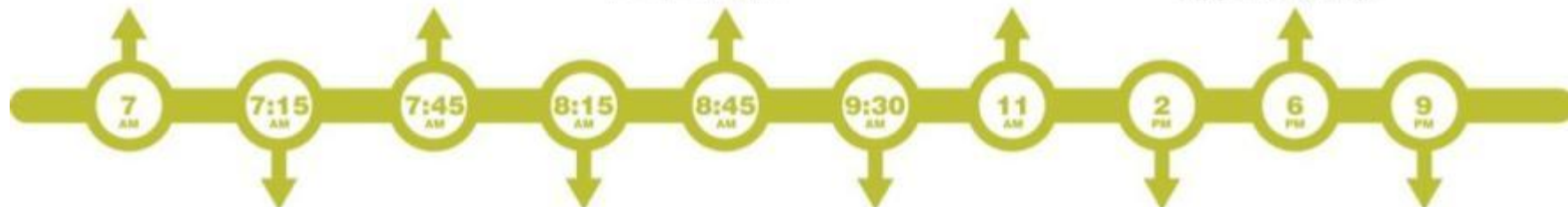
WORK LIFE

At work your co-workers sure help out. They run to pick up documents and take things to your boss for signature...not sure what you would do without them.



AFTER WORK

Long day, but now you can relax...too bad you can't go to the baseball games you used to love, but those long ramps and all those stairs getting to and from the seats are just too much...you can watch it on TV. Time for a little online shopping while watching the game because going to the mall is just not doable now...you only shop in stores with shopping carts for balance these days.



STAY IN BED

Stay in bed reading for a while because your eyes played tricks on you last night just at an exciting part of the story and you had to put the book down.



GET READY

Get dressed...glad you left the buttons done on your shirt because you don't have time to fiddle with those. Put on your "ugly" shoes while kneeling for the stylish heels that used to be such a part of your identity.

Note the blow dryer...it is hot and it warms you out to hold it for so long. Oh well, such is the price of style and maintaining some normalcy.



DRIVE TO WORK

Glad your advocate was able to get you a late start time at work...because everything just takes longer and sitting in rush hour traffic is so tiring.

That guy gave you a dirty look again when you pulled into the handicap parking place. You may not look handicapped, but if he only knew how you felt.



BATHROOM BREAK

Off to the bathroom again, damn bladder and you probably won't even be able to go.



END OF THE DAY

Wow, you are tired. Must be the heat getting too and from the car. Time for bed...wonder what tomorrow will hold.



DABBLERS: Rita's Beer Journey

Rita is a Dabbler. She is beginning to take an active interest in beer in the same way a foodie is interested in food. Her standard drink is a light beer or pale lager but she is also trying new beers on a monthly basis. She wants to learn about a wider variety of

beers, and sticks to beers that are on the edges of those she has already tried. She isn't interested in seasonal offerings or out of the ordinary products that exceed her limited but growing knowledge. Rita is more price sensitive to products she doesn't have much information about.



Trigger to Buy

Description

Since her grocery shopping trips usually require driving, and since she always keeps beer in the house, it is just one more item on her grocery list. Although she doesn't scan the circulars, she is still on the lookout for good value since she has a family.

Recommendation

Ensure in-store promotions are well-displayed. Make her aware of beers she may not know are in her price range.

Comparison/Selection

Description

For Rita, selection of a new beer is a time consuming process. She doesn't know a lot about beer, so she relies on descriptions and color to tell her what product to buy. Sometimes she looks at the Beer Rating card. She is drawn to graphics, but primarily wants to know what color the beer is - dark or light. She has trouble reaching for many of the products that interest her because they are not on the middle shelves.

Recommendation

Explore ways 6-pack can be more easily removed from high cooler shelves. Make beer characteristics more evident at a glance. Provide RIYL information on packages.

Transportation

Description

When Rita goes to Sams to get a 24 pack of bottles, she parks her car close to the exit doors so she can shorten the distance to carry it. When she gets home, she places larger items on the ground to unlock and open the front door.

Recommendation

Explore ways to minimize the picking up and setting down of the package, as well as ways to make larger packages more suitable to one-handed carrying.

Storage/Disposal

Description

Since she has a small refrigerator, space must be used creatively for beer storage. As she puts beer in her fridge, a lot of other items must be moved around to make space. Rita makes use of crisper drawers and stacks her beers on their sides, facing opposite directions so they pack as tightly as possible.

Recommendation

Consider packaging configurations for a variety of spots/ fridge sizes. Also, consider how beer bottles could be more densely packaged and/or dispensed to minimize their footprint in small refrigerators.



EmotionalErgonomics

Variability

95th Percentile Adult Male

5th Percentile Adult Female

~ 2.0"



Anatomy & Physiology

McGrouther and Colditz: Interactive Hand - Therapy Edition



27 Bones

37 Muscles

Dense Nerves at Fingertips







Smell

Using design cues to invite the
interaction of smelling

Impregnating materials with scents

Taste



Perception

Reduced vision is a prominent issue with consumers 40+ years old.

Design Factors:

- Difficulty distinguishing colors
- Reduced transmission of light
- Presbyopia
- Near-sightedness
- Glare sensitivity
- Contrast
- Dry eyes





FRONT
TEAR
HERE

H.J. HEINZ CO.

HEINZ
ESTD 1869
TOMATO
KETCHUP
NET WT 2.25 OZ. 64g

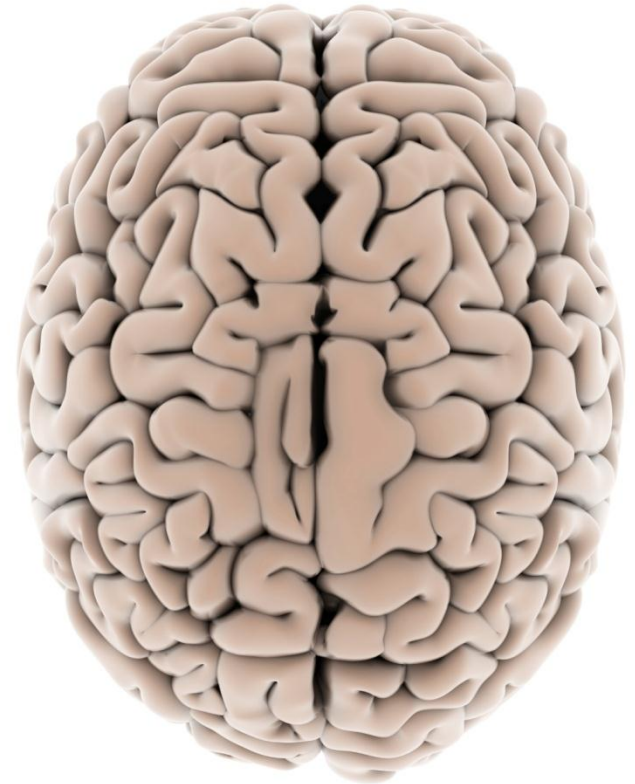
Thinking

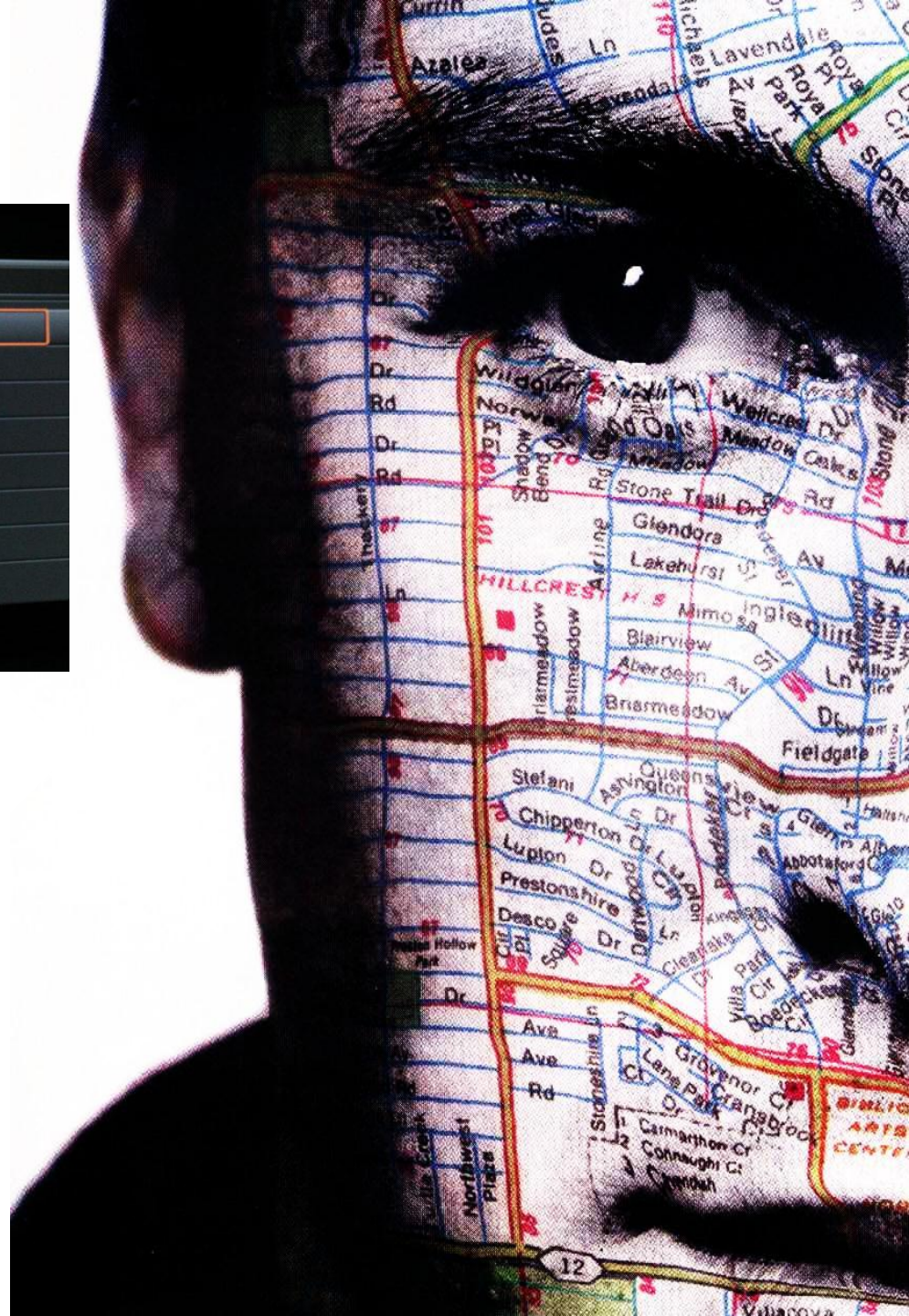
The human brain gradually loses tissue from the third decade of life onward .

Cognitive deficits include:

- Cognitive impairment
- Mental slowing
- Memory loss

Different age groups think differently.





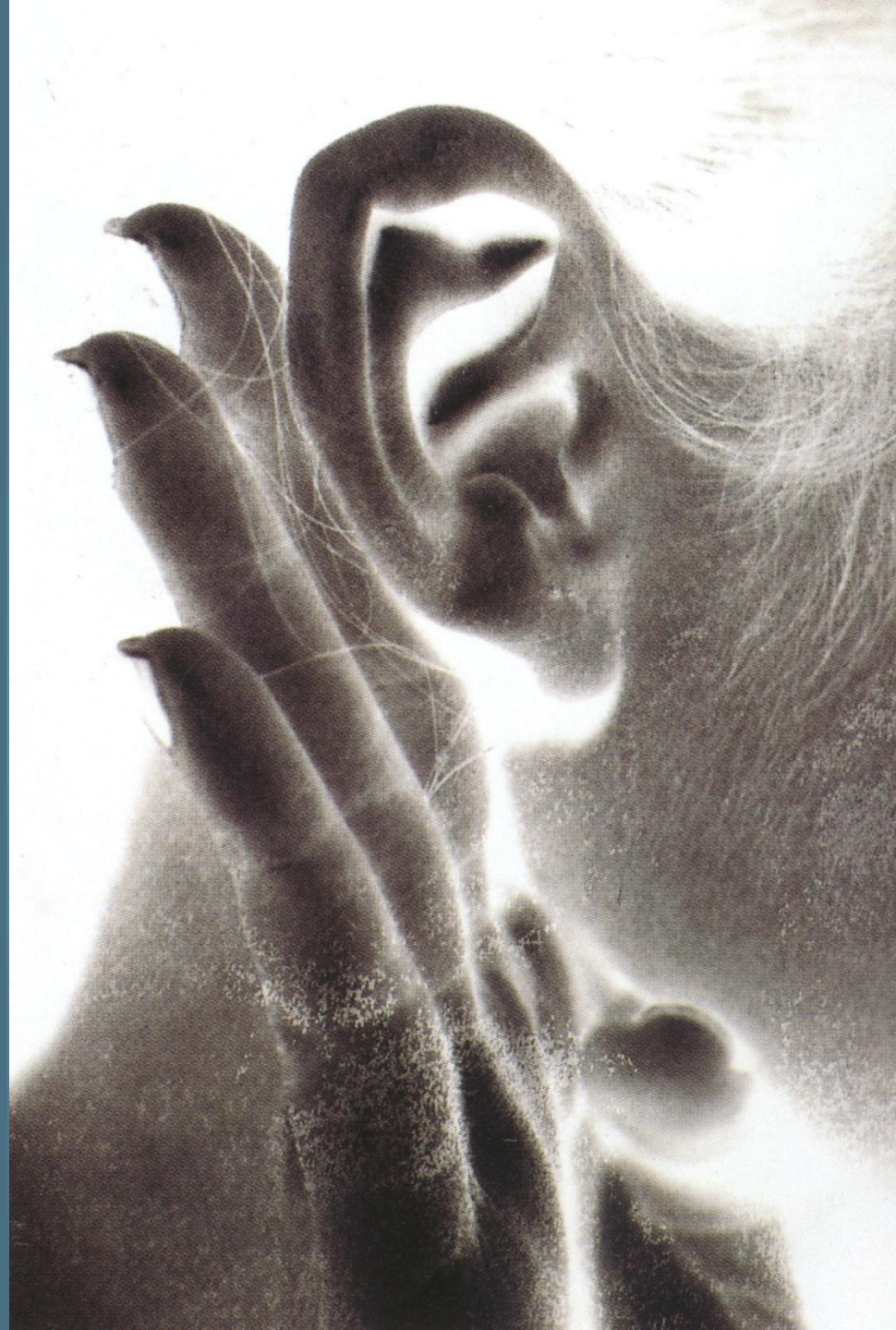


Hearing

Pleasurable vrs. notable acoustical signatures impacts hearing.

Auditory discrimination -- Hearing differences in acoustically crowded spaces .

1 in 4 adults over 65 suffers from hearing loss



Touch



Feeling

Because fingertips can sense
surfaces details as small as
3 microns... *every detail matters!*





Excitement



Minimalism

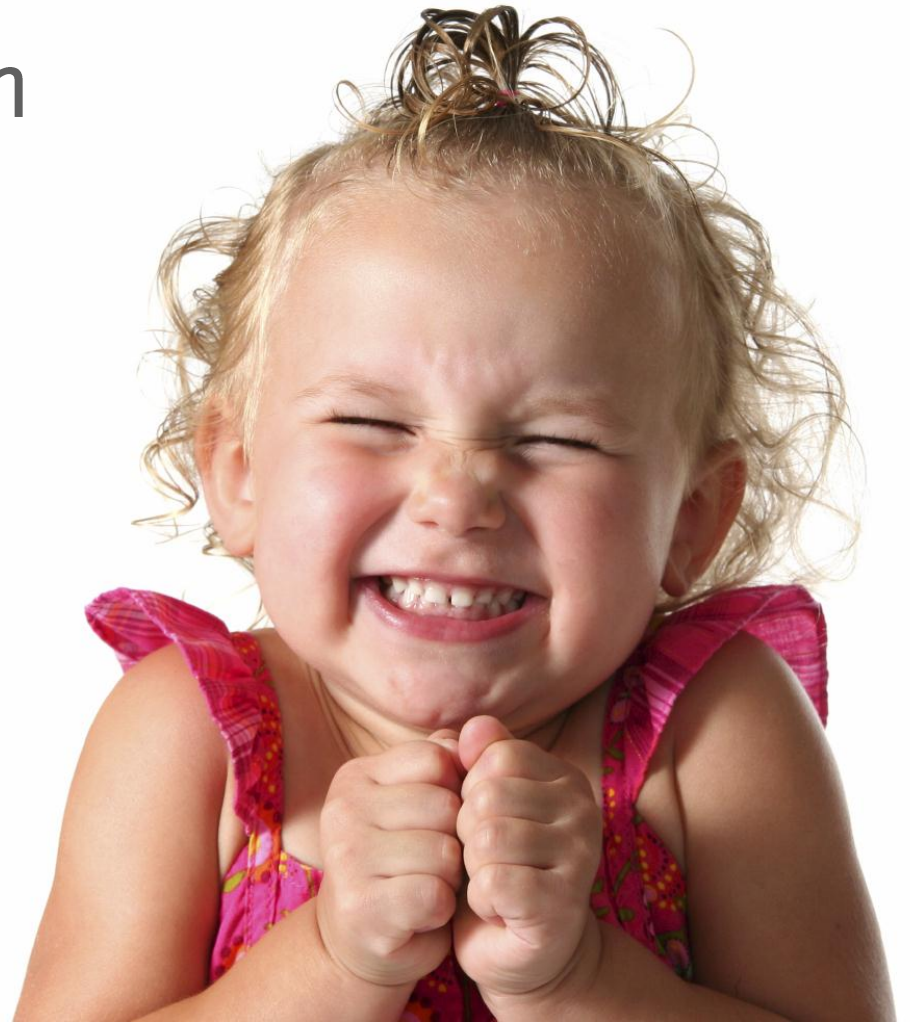


Originality



Quality

Experience Design



TEST

What is the Best
Designed Product
you own?



A black and white photograph of a man with short hair, wearing a light-colored polo shirt, looking intently at someone off-camera to his left. The background is a workshop or studio with various items on shelves. A dark, out-of-focus foreground element is on the left. A semi-transparent dark band across the middle of the image contains the word "Designers" in white text.

Designers



Rubbermaid Containers

- Clean
- Stackable
- Easy pull-off lid
- Uncluttered



Merrell Backpack

- Clean/Simple Design
- Anthropometric straps
- Fuss free closures

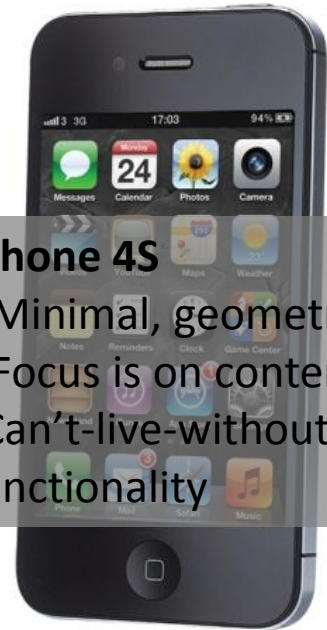


Cannondale CAAD 9

- Ergonomic shifters
- Light & Fast
- Feels like a better rider

2002 Audi TT

- Clean, timeless design
- No-frills driving machine

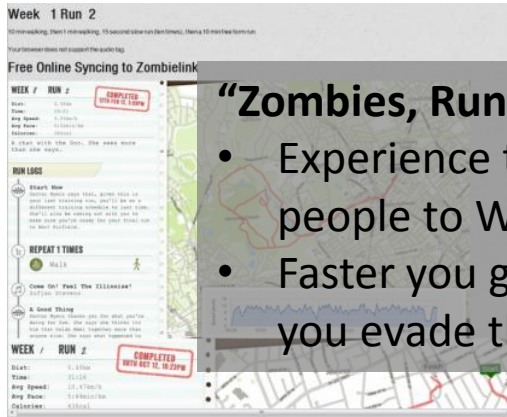


iPhone 4S

- Minimal, geometric
- Focus is on content
- Can't-live-without functionality

Goggle Tear Off Lenses

- One handed use
- Immediately clear vision
- Safe riding



"Zombies, Run" App

- Experience that gets people to WANT to run
- Faster you go, the more you evade the zombies!

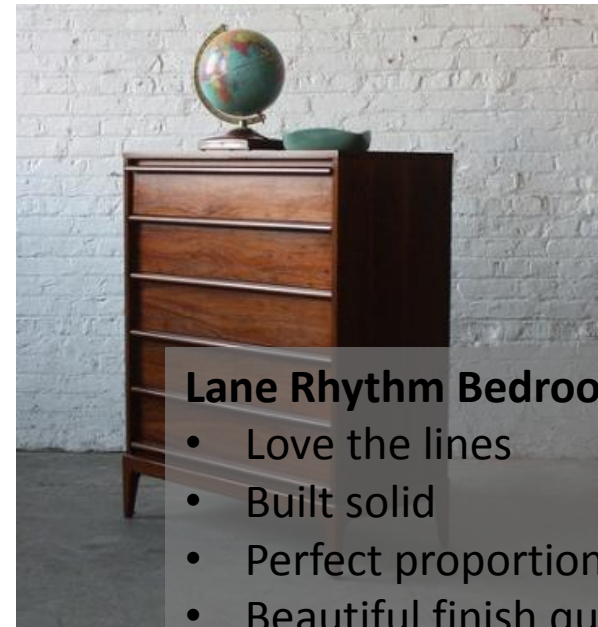
Lunatik watchband for iPod Nano

- Enhance functionality
- Fits users need
- Fashion statement from user need



Keurig Coffee Maker

- Eliminates grinding & filters
- Timer setting – coffee is waiting for you in the morning



Lane Rhythm Bedroom Set

- Love the lines
- Built solid
- Perfect proportions
- Beautiful finish quality



Swiss Gear Ibx Notebook Computer Backpack

- Plenty of storage pockets
- Durable / long lasting
- Enjoy looking at it

Intuos Wacom Tablet

- A joy to use
- Everyday use
- Saves time
- Increases productivity



Yard Machine 3-Way System

- A life saver with a heavily wooded yard
- All-in-one
- Look forward to using it

Benelli Nova Pump 12 Gauge

- Strong but lightweight
- Modern design
- Recoil reducer technology



Microsoft Kinect – for XBOX 360

- Not just a game controller.
- Converts voice commands, gestures, postures, and expressions into Human-Machine inputs
- Being developed to be used for educating and Medical applications



A man in a dark suit and tie stands in a modern office, talking on a mobile phone. He is positioned in front of a large window that offers a view of a city skyline. The office is furnished with a desk, a computer monitor, a telephone, and an office chair. The scene is captured in a high-contrast, black and white style with a warm, golden light from the window.

Business Executives



Tissot Wrist Watch

- Easy-to read graphics
- Unique wrist band design
- Contrasting graphics
- Scratch proof



Hamilton Beach Breakfast Sandwich Maker

- Delicious
- Quick & Easy Sandwiches
- Simple to clean



GoGo Squeeze Apple Sauce

- Children love them
- Eat on the go
- Quick/easy

Jawbone "Up" Band

- Does its thing while I do mine
- Minimal setup
- Style with function



1966 Sting Ray

- Love the lines 1960's Muscle Cars
 - Beautiful integrated hide-away head lights
 - Great low profile with bulging fenders
 - Incredible details on dashboard & badging





Lexus GS300

- beautiful, slick, professional & roomy.
- High performance 300+hp
- Bose stereo
- Best quality & reliability



iPhone 4S / iPod

- One hand use
- Changed my life
- Time saver
- Helps with everything



Naot Clogs

- Long lasting – 12 years
- Comfortable / good support
- Feel like slippers
- Easy to put on without hands



LogTech Harmony

- All in one
- Intuitive user interface
- Great feel in hand

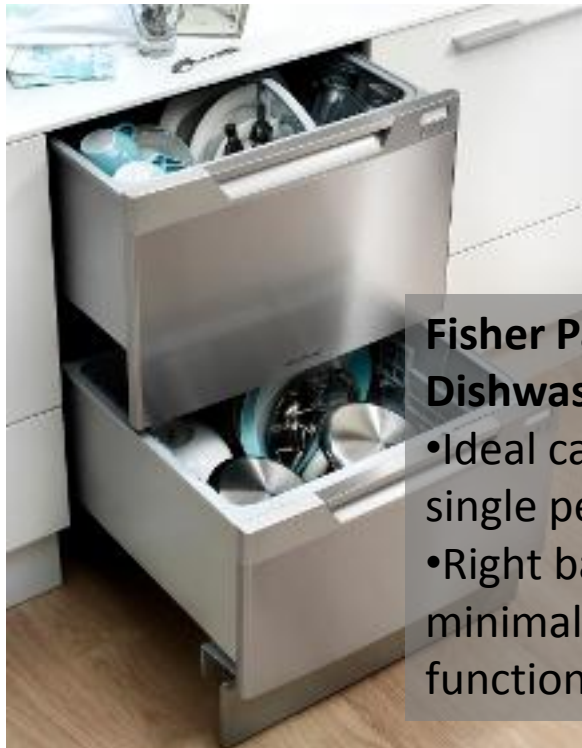
Citizen Eco-Drive Watch

- Time Zone adjustment
- Independent alarm set
- Analog & Digital display



DeWalt Cordless Drill

- Perfect Balance
- Looks/Feels high quality
- Feels good and macho



Fisher Paykel Dishwasher

- Ideal capacity for single person
- Right balance of minimal features and function



Leatherman Multi-tool

- High Quality
- Solid feel in hand
- All in one
- Covenant



Toyota Prius

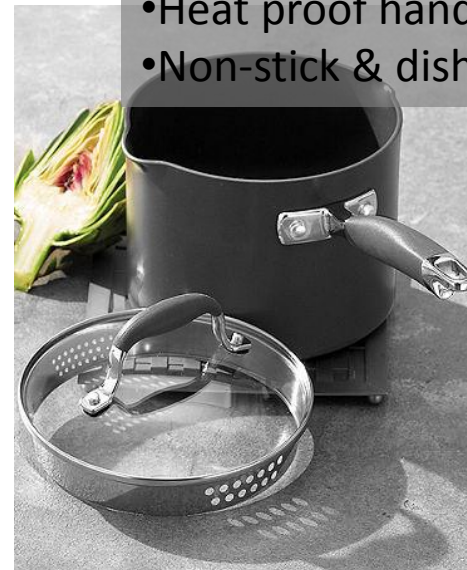
- Safe touch buttons interact with dashboard screen
- Lock/unlock with keys in pocket

Traditional Wine Opener

- All-in-one
- Intuitive, never have to explain how it works
- Takes up little space

Anolon Advanced Saucepan

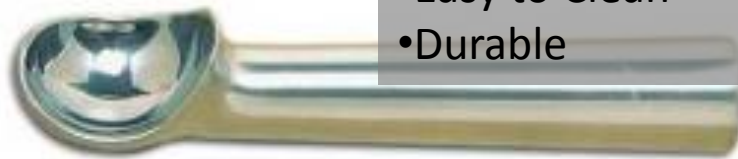
- Strainer pouring spout
- Heat proof handle
- Non-stick & dishwasher safe





OXO Smooth Edge Can Opener

- Don't need to be strong
- Doesn't take up counter space
- No sharp edges to cut yourself on



Philippe Stark Mercury Ice Cream Scoop

- Clean/simple/beautiful
- Easy to Clean
- Durable



Rowenta Iron

- Heavy = communicates quality & holds fabric down
- Simple/minimal features
- Durable – had it for 15+ yrs



Titleist Lightweight Cart Bag

- Light weight
- Dividers for each club
- 8 zipped pockets
- Cooler for beverages



X-mini Speaker

- Portable & Lightweight
- Cute/sleek
- Charges easily w/ miniUSB
- Long Battery life

Lunor Rimless Frames

- Bridge nose support without pads
- Extremely lightweight
- Make me feel confident



A black and white photograph of an elderly woman with short, light-colored hair and glasses, wearing a light-colored blouse and a dark vest. She is seated at a piano, her hands resting on the keys. The background is softly blurred, showing what appears to be a room with other pianos. The word "Elderly" is overlaid in white text on the left side of the image.

Elderly



ReSound mod Alera 7 – Hearing Aid

- Hooks up to iphone, ipod, or TV
- Allows me to enjoy daily things with more ease.



Diabetic Socks

- Wick away moisture
- Reduce friction
- Pillow like fill on bottom



Jitterbug Plus – Cell Phone

- Simple (yes/no commands)
- Intuitive
- Easy to Read / large buttons

Ateco SS Cookie Spatula

- Paper thin
- Perfect to slide under cookie without mess





dignity







Dignity

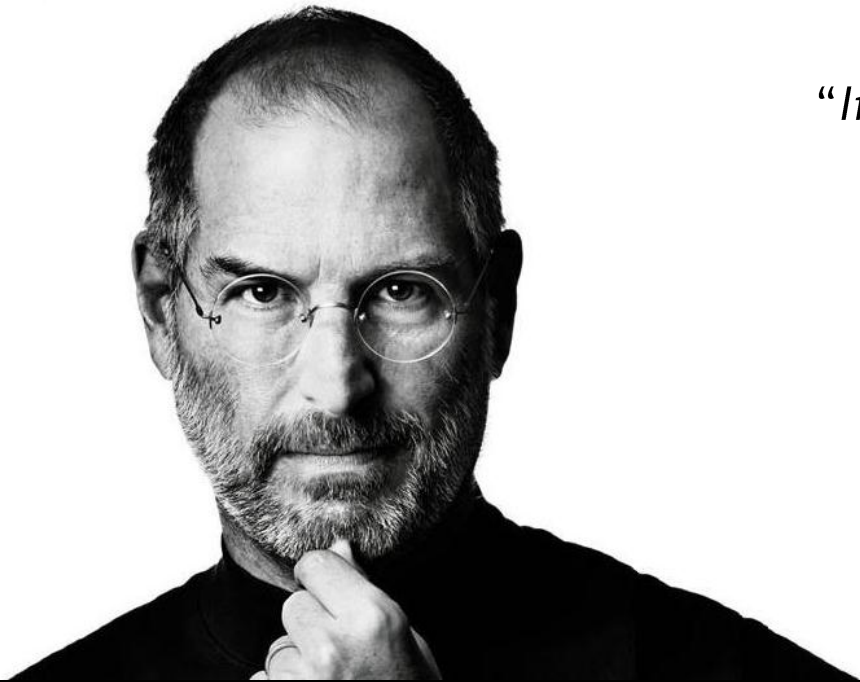


Fun
Simple
Intuitive
Obvious
Engaging
Gives back
Easy-to-Use

MYTH: Innovation...
It's easy!

...IF IT WAS EASY
EVERYONE WOULD BE DOING IT!

Masters of the *Designed Experience*



*"If you can dream it
you can do it"*
Walt Disney

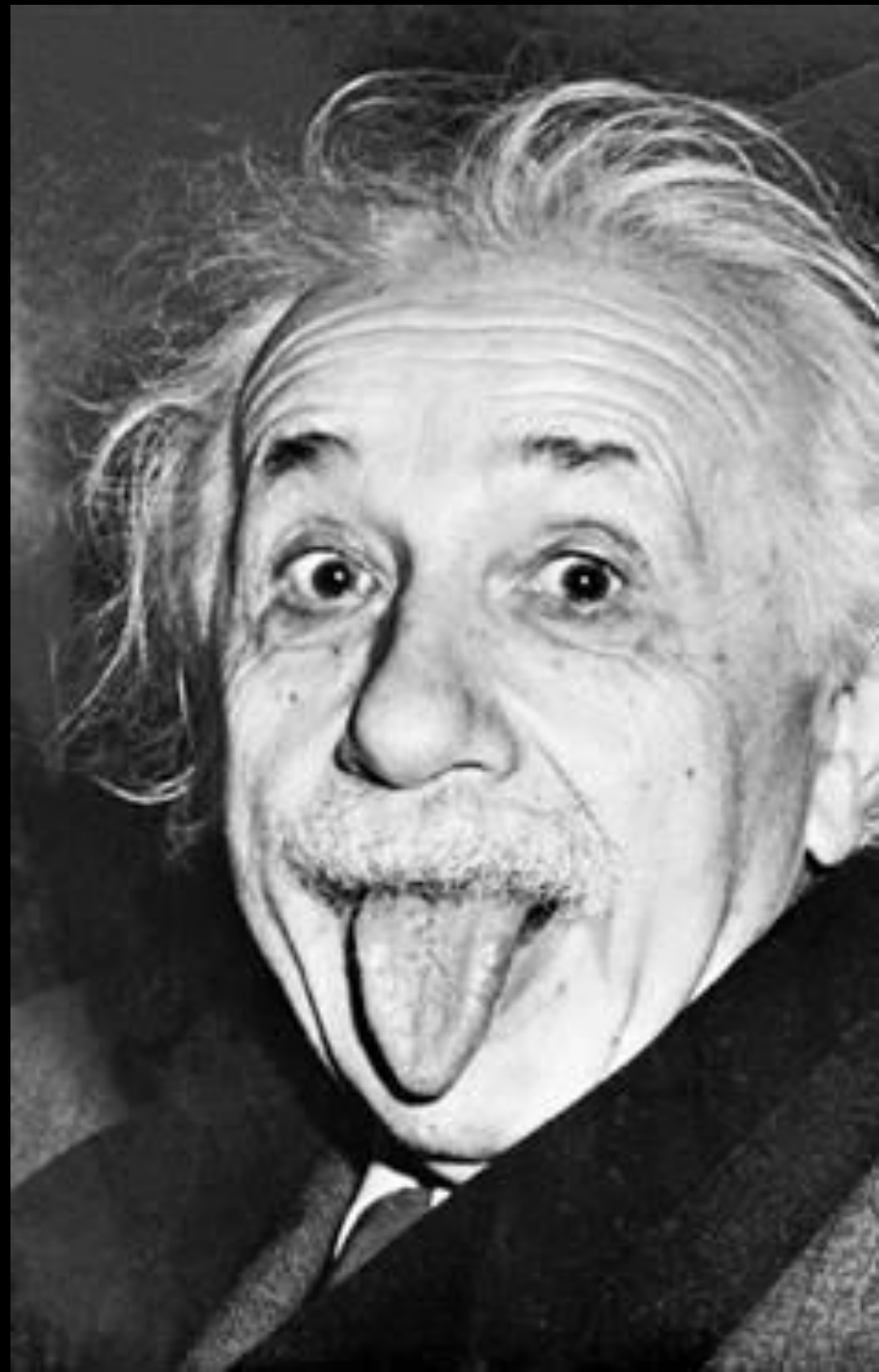


"In most people's vocabularies design means veneer. Nothing could be further from the meaning of design. Design is the fundamental soul of a man made creation." Steve Jobs

An Innovation
Ergonomics
Strategy

**“If I had 20 days to solve
a problem, I would take
19 days to define it.”**

Albert Einstein





INNOVATION

99% Perspiration

Thomas Edison

**“Whenever you see a
successful business,
someone once made a
courageous decision.”**

Peter F. Drucker



Innovation Killers

We tried that already.
We've never done that before.
We don't do it that way here.
That never works.
It's not in our budget.
It's not an interesting problem.
We don't have time.
Executives will never go for it.
It's out of scope.
Our customers won't like it.
Our customers won't get it.
It won't make money.
How stupid are you?
You're smarter with your mouth shut.



User Centered INNOVATION

Empathize with users

Ask yourself “*What If?*”

What can be done now?

What is the next Big Idea?

Have innovation Sheppard

Fine all “*Innovation Antibodies*”

Find out what’s broken first!



“Metaphase has increasingly melded scientific research and aesthetics in designing new products – changing the reputation of a field once view as frivolity.”

Chicago Tribune

