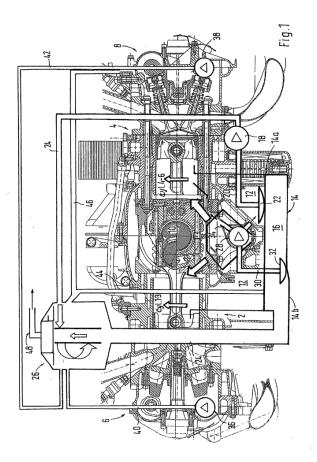
The Designer's Process





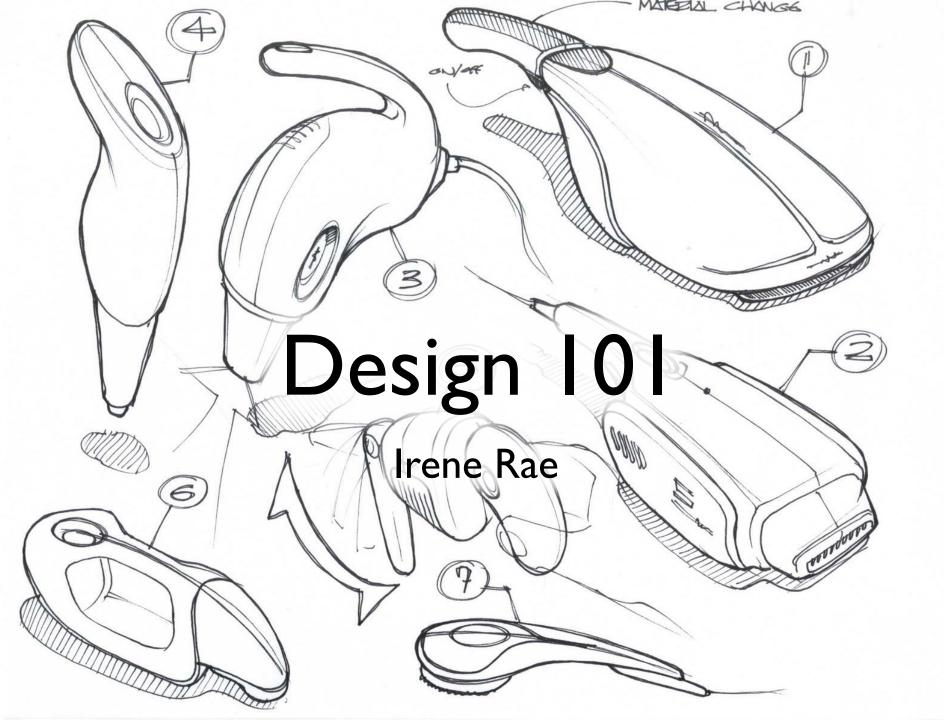
What The Designer Thinks

What The User Sees

Administrative Stuff

- 4 readings on the website, I optional
- "Thought questions" available for the readings

Waitlisted people can wait to subscribe to TopHat until they know if they're enrolled



Why design?

Communicating your ideas

What is your message?

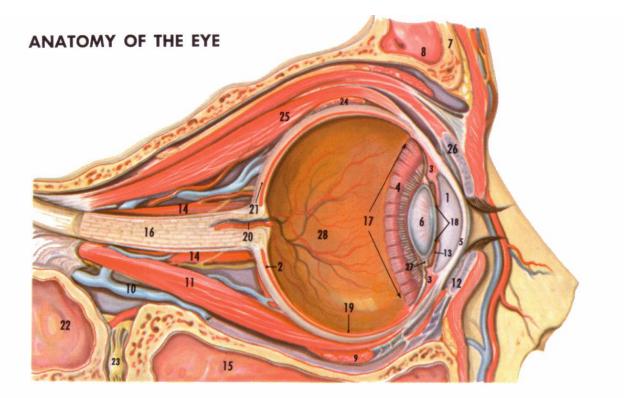
Who is your audience?

How will you communicate your message?

What is your format?

Perception

The perceptual system

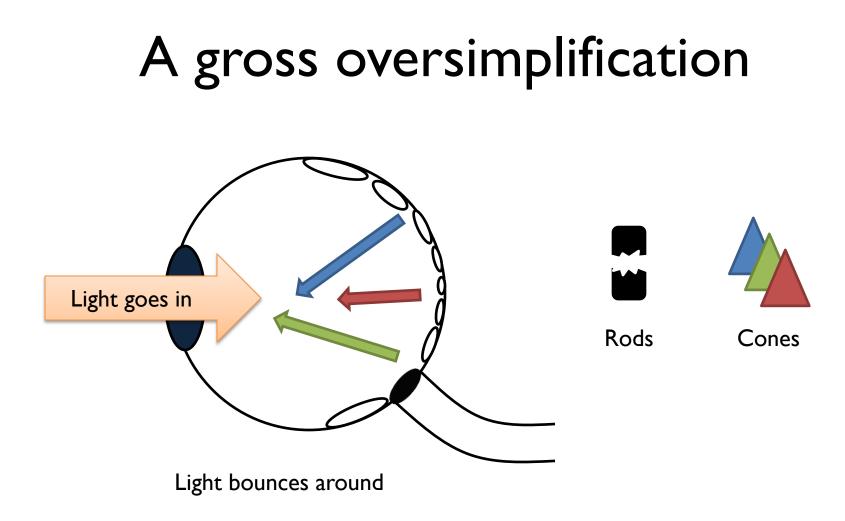


- 1. Aqueous chamber
- 2. Choroid
- 3. Ciliary muscle
- 4. Ciliary processes
- 5. Cornea
- 6. Crystalline lens
- 7. Frontal bone

- 8. Frontal sinus
- 9. Inferior oblique muscle
- 10. Inferior ophthalmic vein
- 11. Inferior rectus muscle
- 12. Inferior tarsus
- 13. Iris
- 14. Lateral rectus muscle

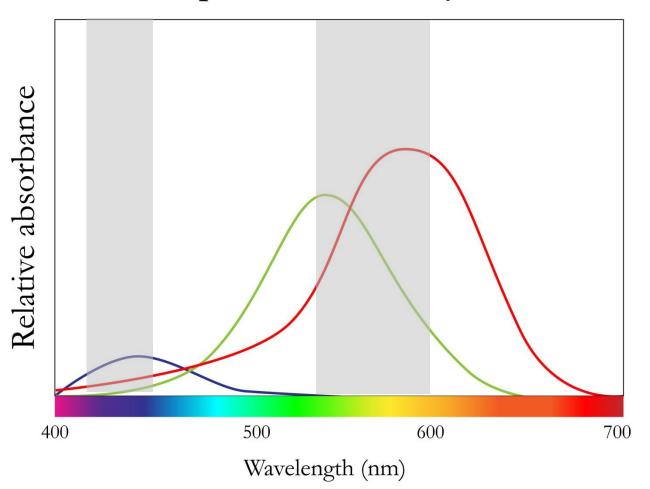
- 15. Maxillary sinus
- 16. Optic nerve
- 17. Ora serrata
- 18. Pupil of the iris
- 19. Retina
- 20. Retinal artery and vein
- 21. Sclera

- 22. Sphenoid sinus
- 23. Pterygopalatine ganglion
- 24. Superior oblique muscle
- 25. Superior rectus muscle
- 26. Superior tarsus
- 27. Suspensory ligament
- 28. Vitreous chamber



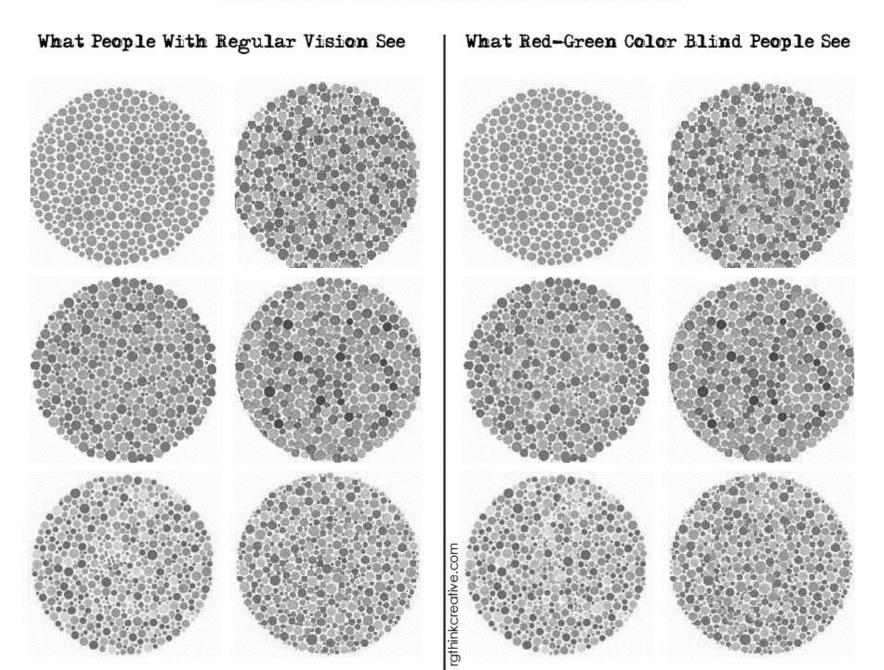


Human spectral sensitivity to color

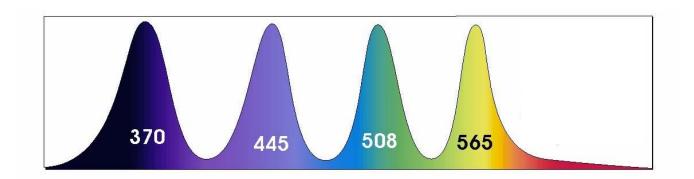


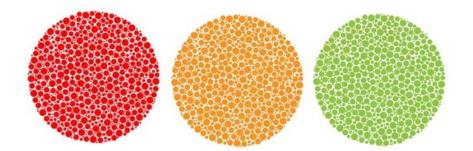
Ishihara Test For Color Blindness

Ishihara Test For Color Blindness

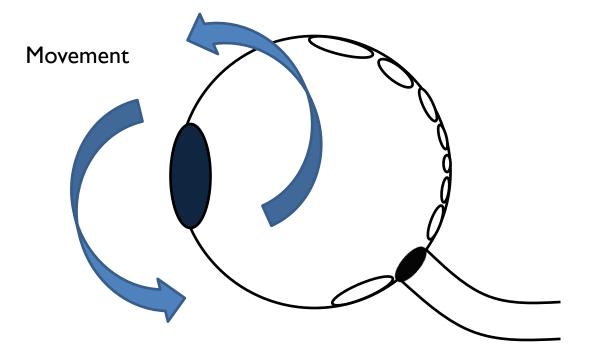


Tetrachromats





Other inner workings

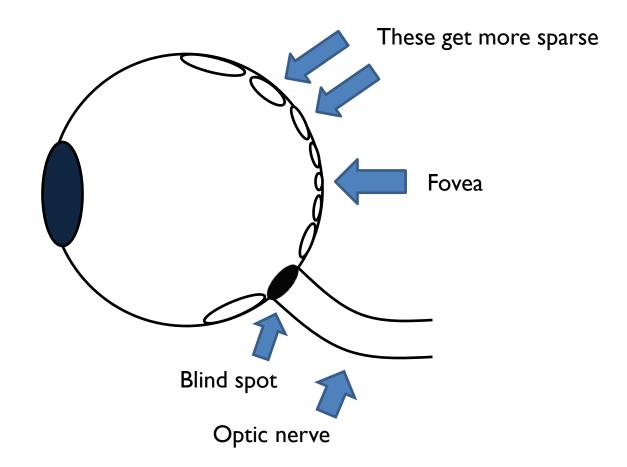


Change blindness demo



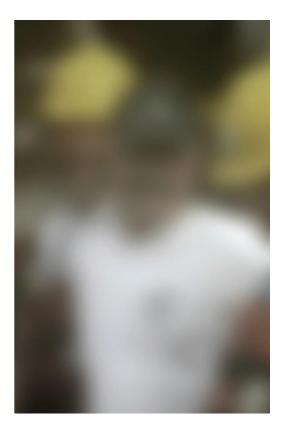
http://www.cs.ubc.ca/~rensink/flicker/download/Chopper&Truck.mov

Concentration of cones



Fovea limitations

	Contraction of the local division of the loc				
		23.7%	10,000		
1.004			6,200		
		20 8%	34,285		
100.000	991,837	26.8%	467,400	4000	
	26,112	24.9%	640,56	40	
10.000	23,953	22.7%	63,184		
10.400	33,652	24.5%	62,944		
	156,418	26.7%	416,061	201	
1,041	5,278	17.3%	9,250		
11.008	1.565	19.8%	13,81		
315		28.6%	3,962		
	10,294		344,257		
		22.7%			

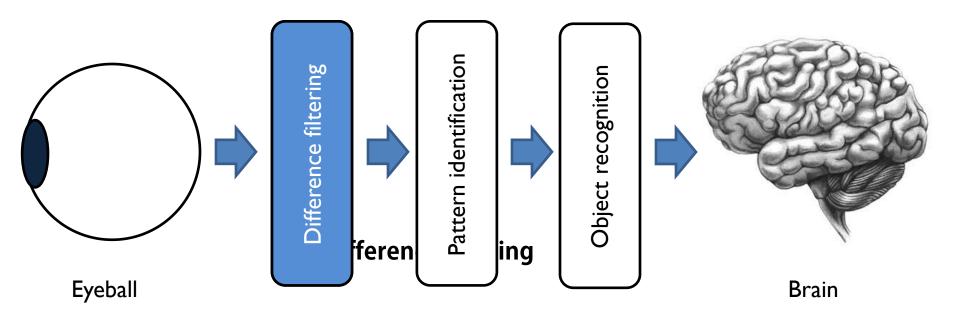


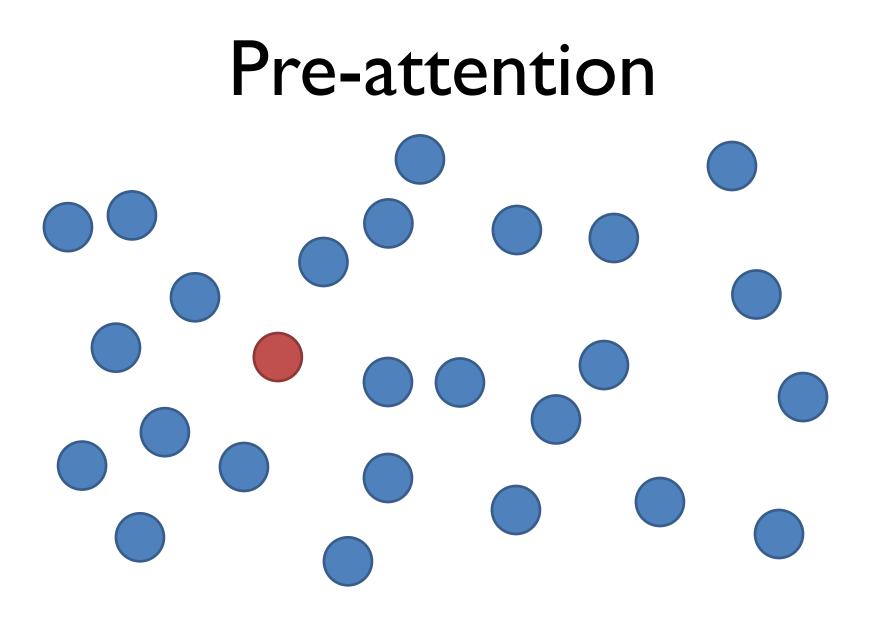
Basketball demo

(http://www.youtube.com/watch?v=vJG698U2Mvo)

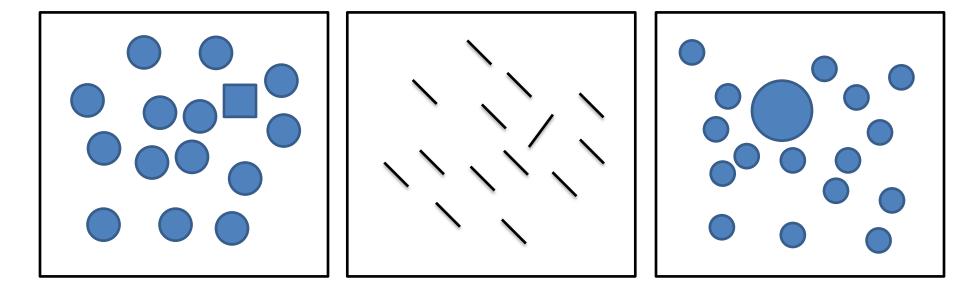
Perceptual tools

Filtering & data processing

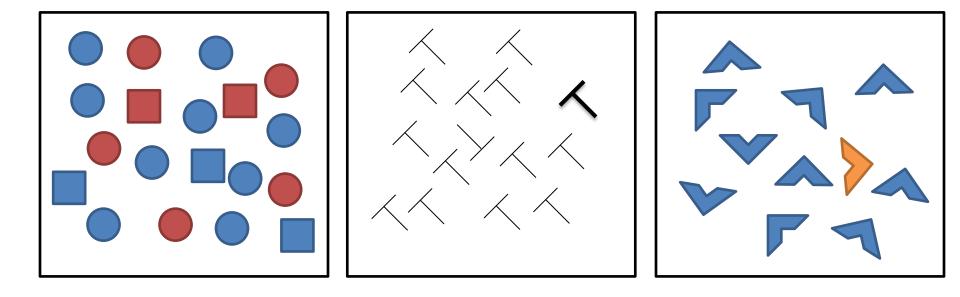




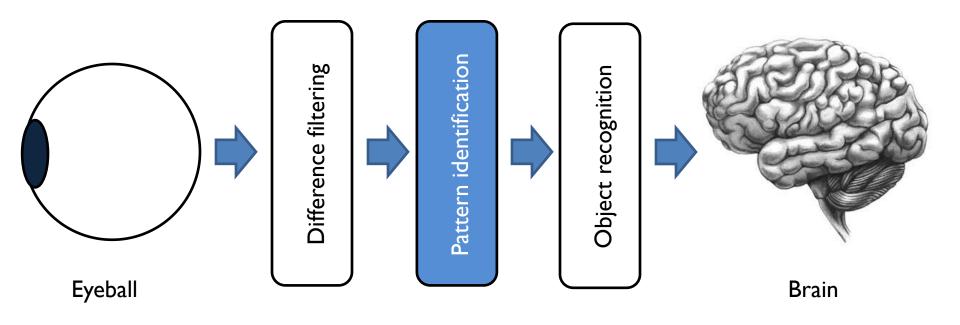
Pop out effects



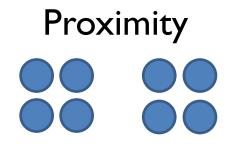
Difficulties of pop out



Filtering & data processing



Grouping things together



Similarity

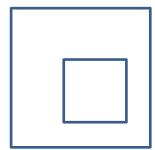


Closure

Area

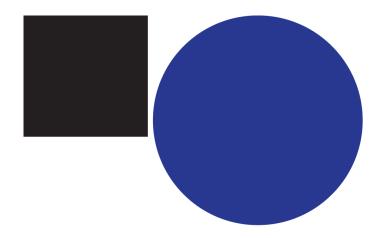
Symmetry





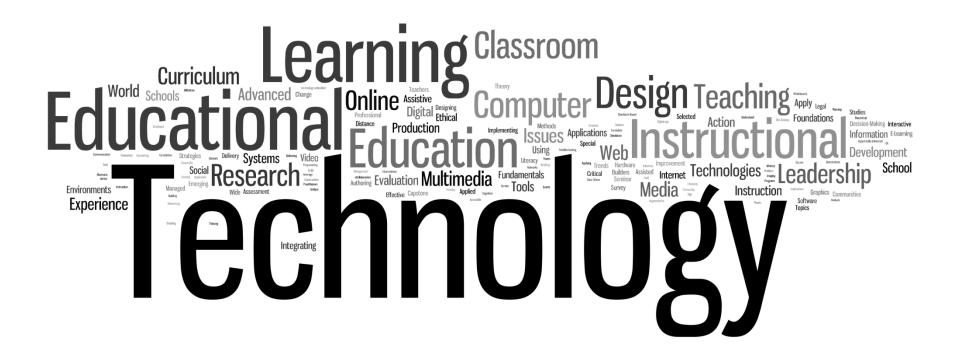


Visual Tension

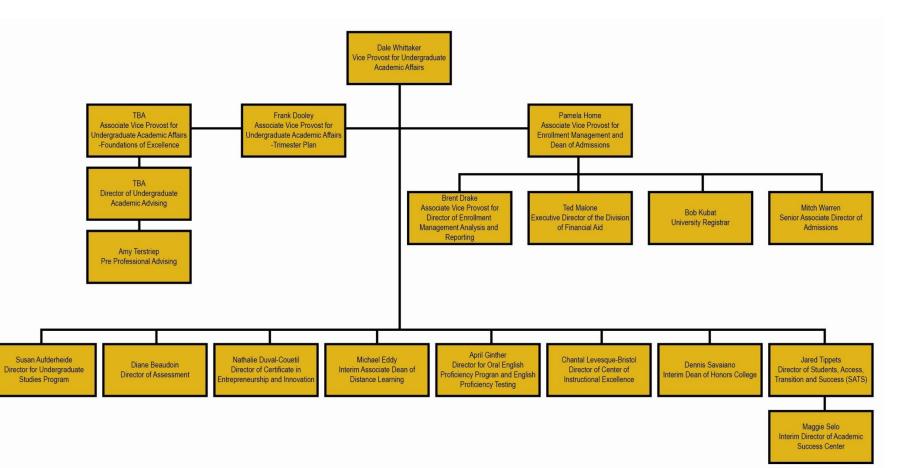


Hierarchy

Size and contrast hierarchy

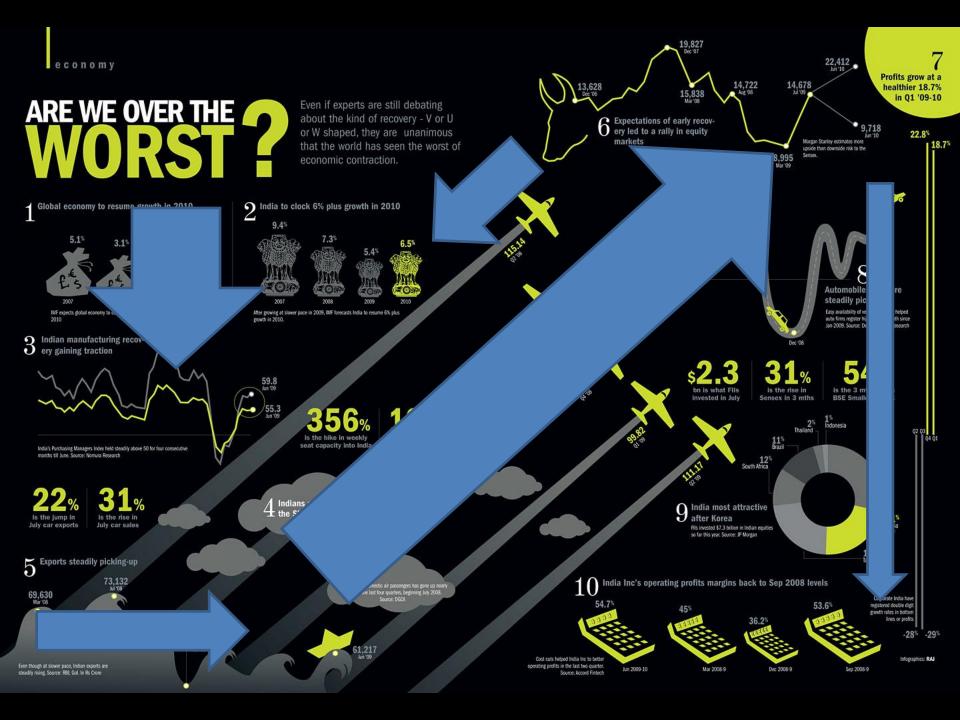


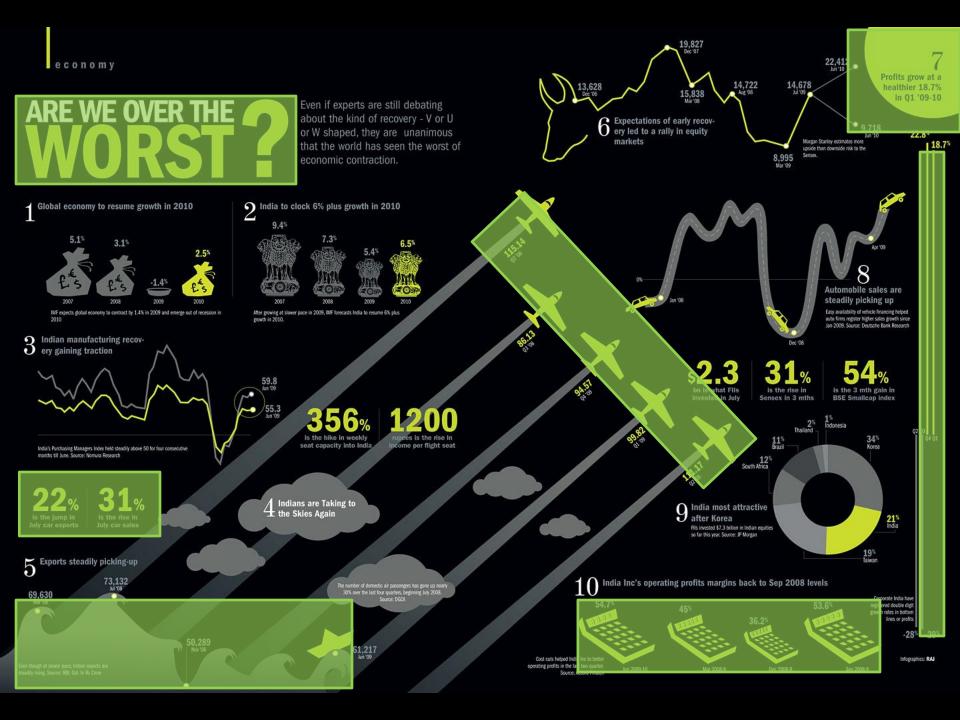
Positional hierarchy



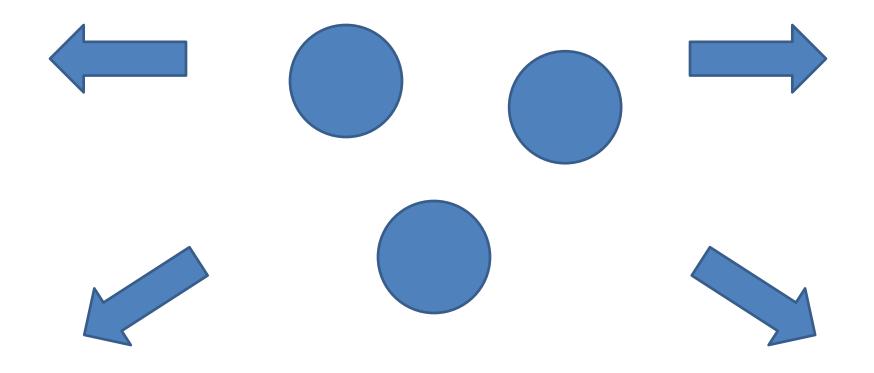
Flow/continuity



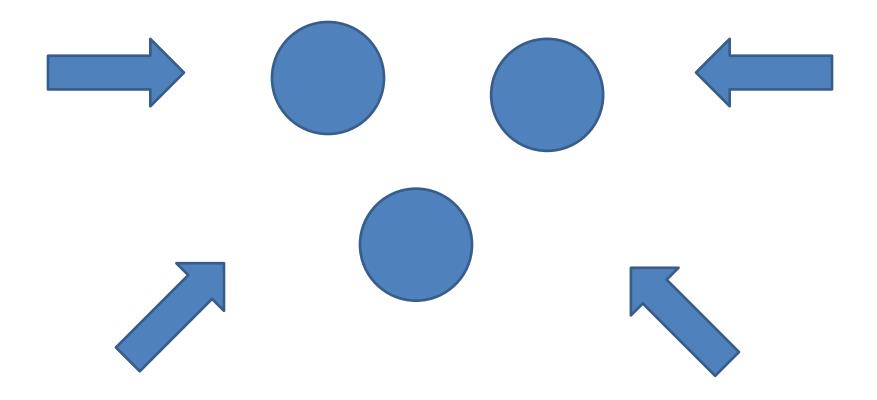




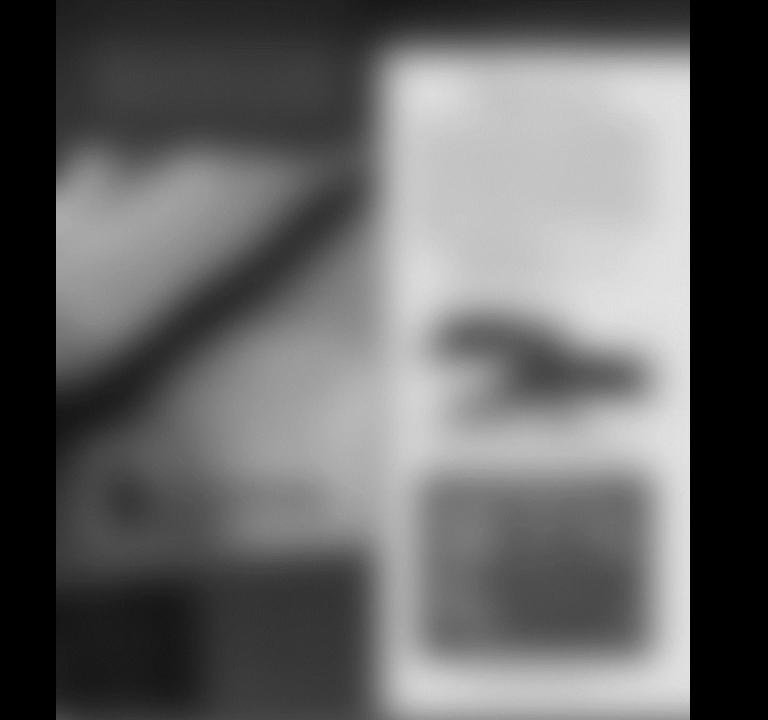
What is important?



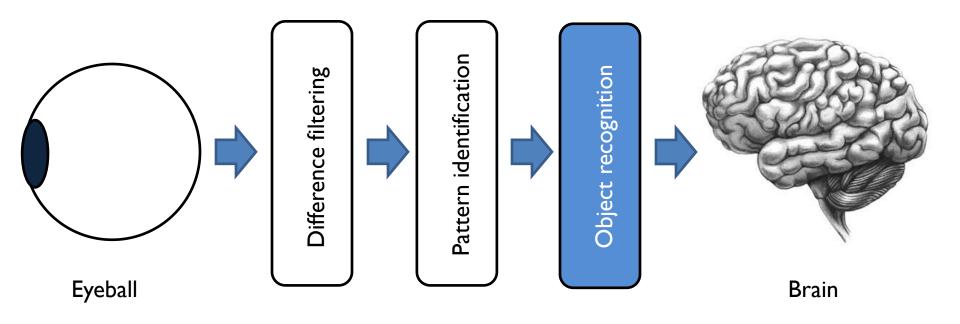
Now what is important?



A "scientific" approach



Filtering & data processing



People and text





SUPERMAN RETURNS...

> IN THEATRES AND IMAX 3D Selected scenes transformed in IMAX 3D

Cultural tools

Visual search



THE GOLD

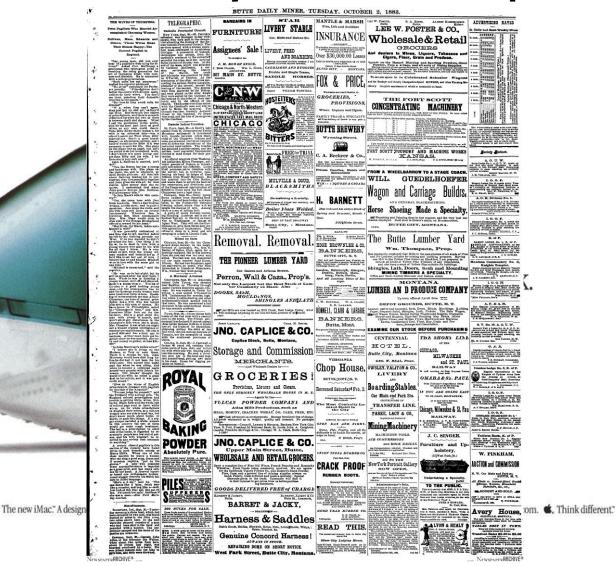
RUSH STA



teen to be RUGBING toward BOLES in the ground, hoping to find OOLD. Most of them mover even fund the holes in the ground. But at least they all get RIERGING and FREEM AIR, which kept them REALTHY. Each health is more important than DOLD ... isn't if? You get the OOLD if you can appt me.

White space

The luxury of white space



Meaning in orientation

Dynamism!

5

Ī

2

C

8

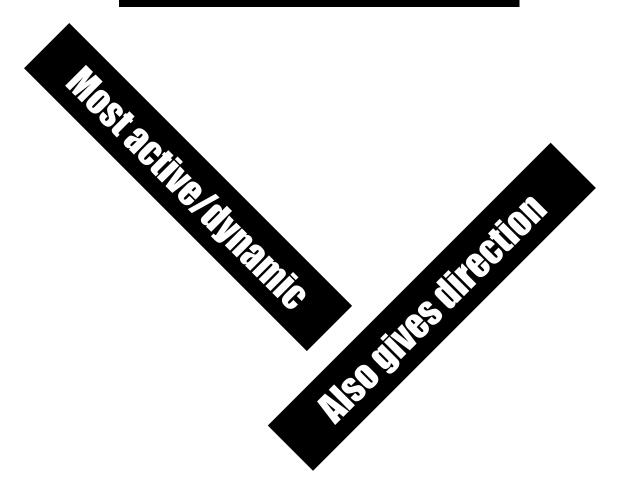
1

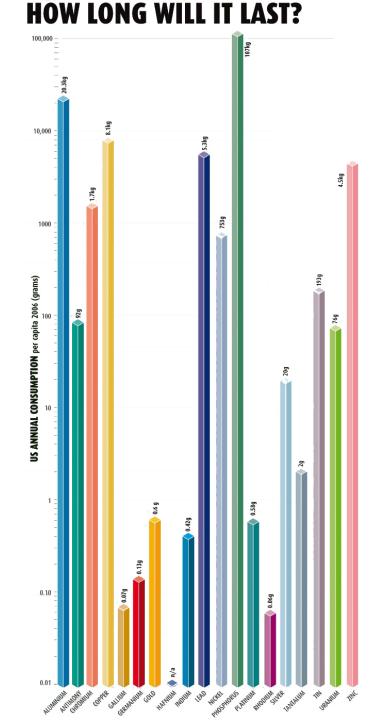
C

W

B

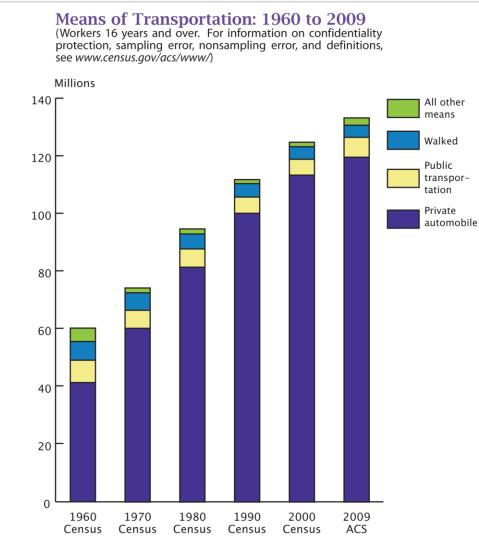
Solid, static, dependable









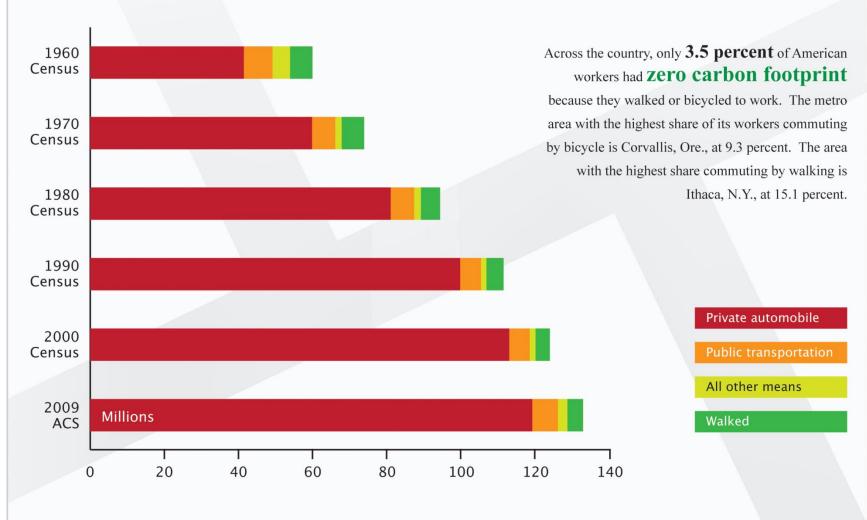


Sources: U.S. Census Bureau, Decennial Census, 1960, 1970, 1980, 1990, 2000; U.S. Census Bureau, American Community Survey, 2009.

Across the country, only 3.5 percent of American workers had zero carbon footprint because they walked or bicycled to work. The metro area with the highest share of its workers commuting by bicycle is Corvallis, Ore., at 9.3 percent. The area with the highest share commuting by walking is Ithaca, N.Y., at 15.1 percent.

Means of Transportation

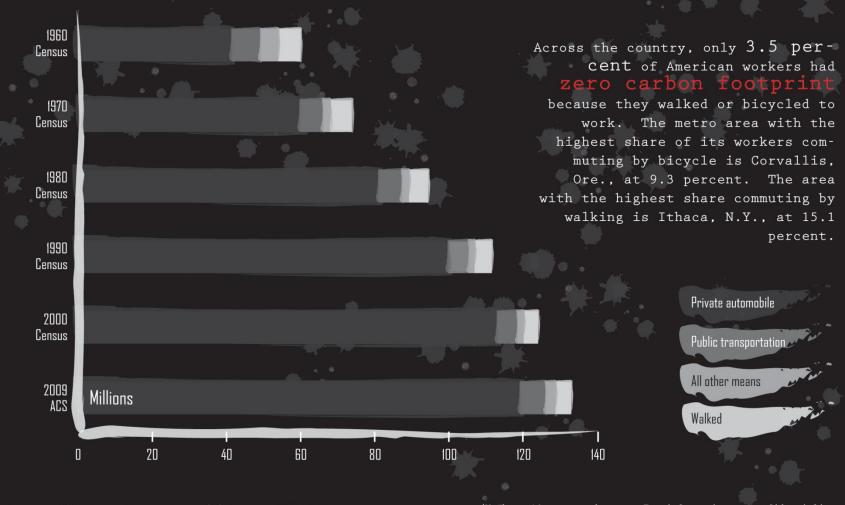
1960 to 2009



Sources: U.S. Census Bureau, Decennial Census, 1960, 1970, 1980, 1990, 2000; U.S. Census Bureau, American Community Survey, 2009.

(Workers 16 years and over. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see www.census.gov/acs/www/)

Means of Transportation: 1960 to 2009

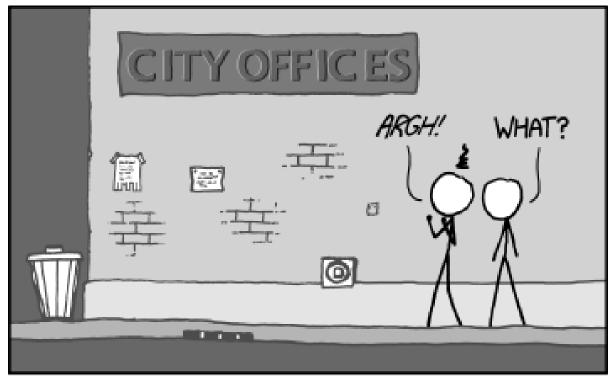


Sources: U.S. Census Bureau, Decennial Census, 1960, 1970, 1980, 1990, 2000; U.S. Census Bureau, American Community

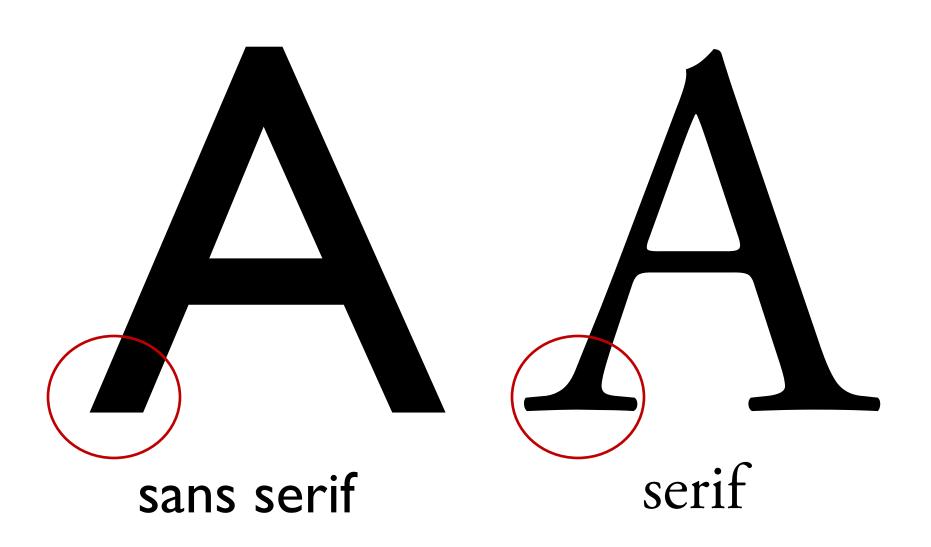
(Workers 16 years and over. For information on confidentiality protection, sampling error, nonsampling error, and definitions, see

Communicating in text





IF YOU REALLY HATE SOMEONE, TEACH THEM TO RECOGNIZE BAD KERNING.



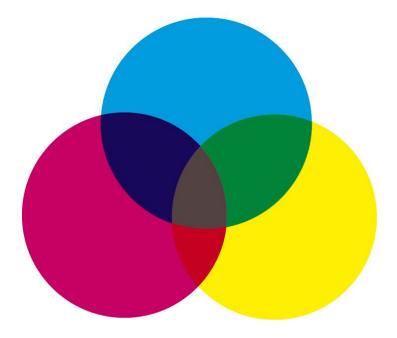
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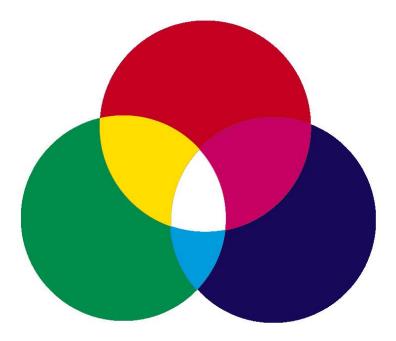
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Communicating your ideas

What is your message? Who is your audience? How will you communicate your message?

What is your format?





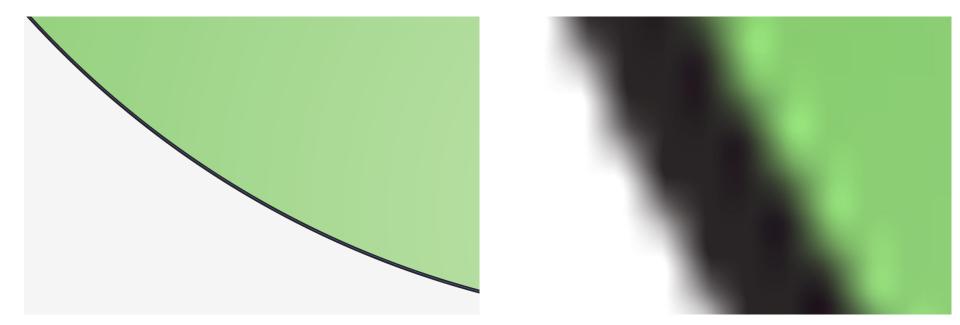
Subtractive color (CMYK)

Printed things

Additive Color (RGB)

Things on a screen

Vector vs. Raster



Graphs/graphics

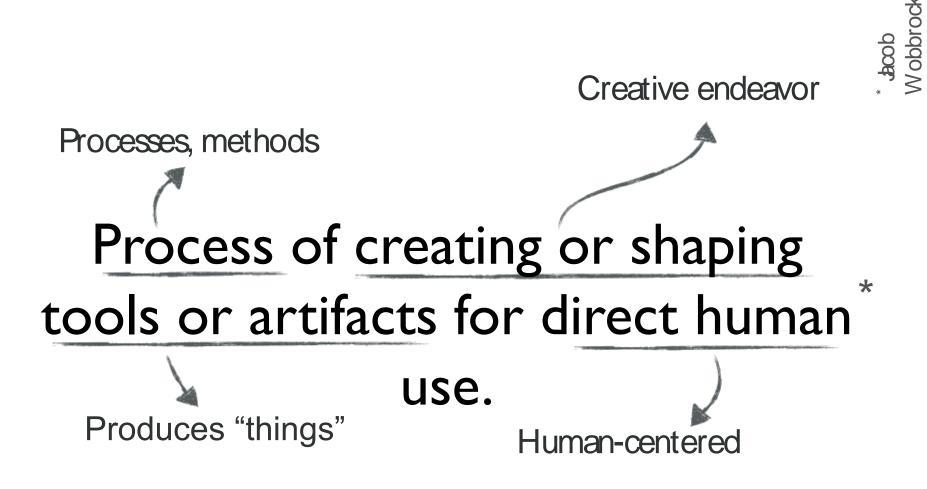
Photos

How might these principles change in UX design?

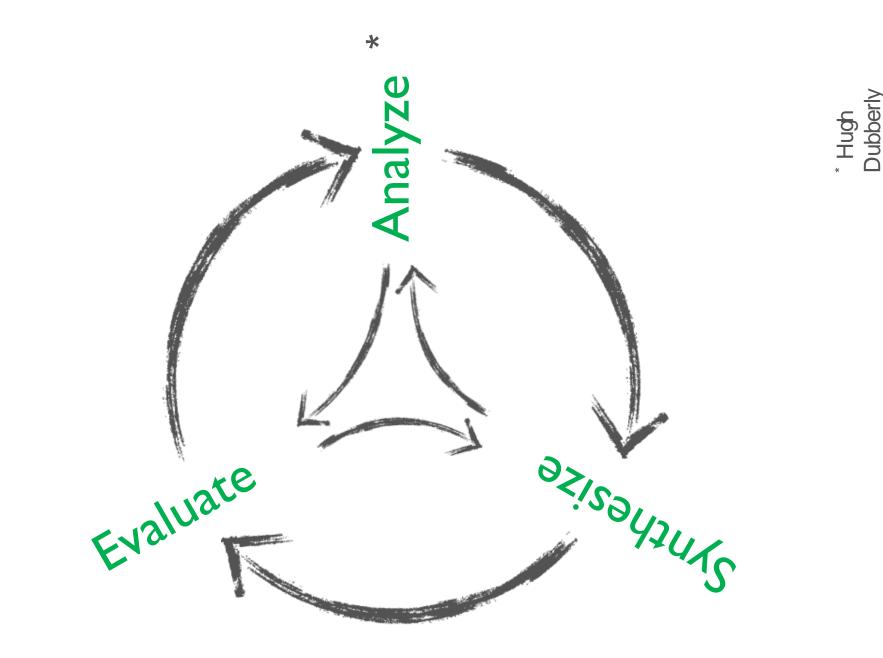
Questions?

DEMYSTIFYING DESIGN

How does Apple design its products?

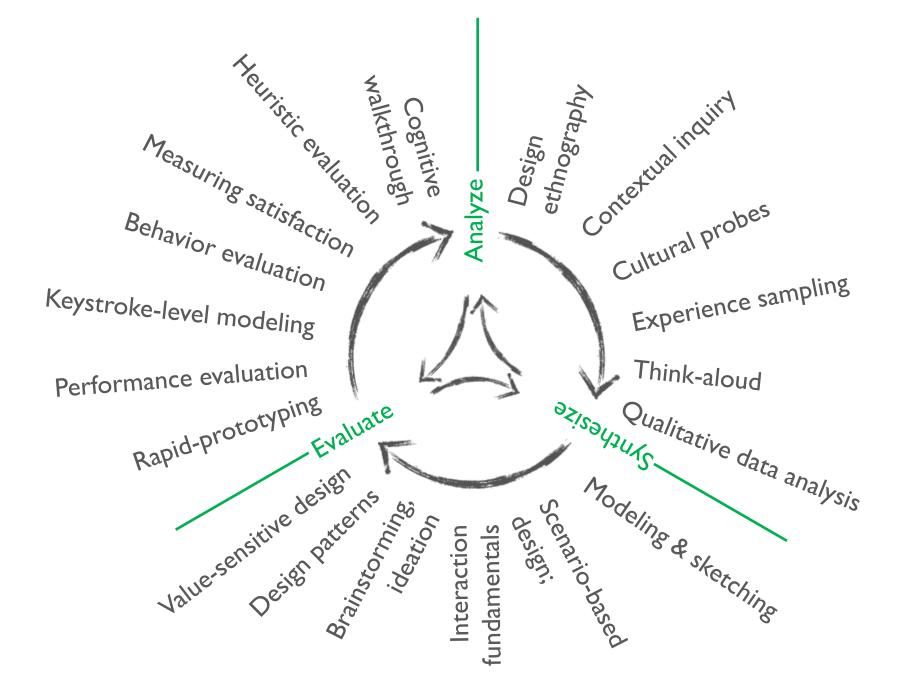


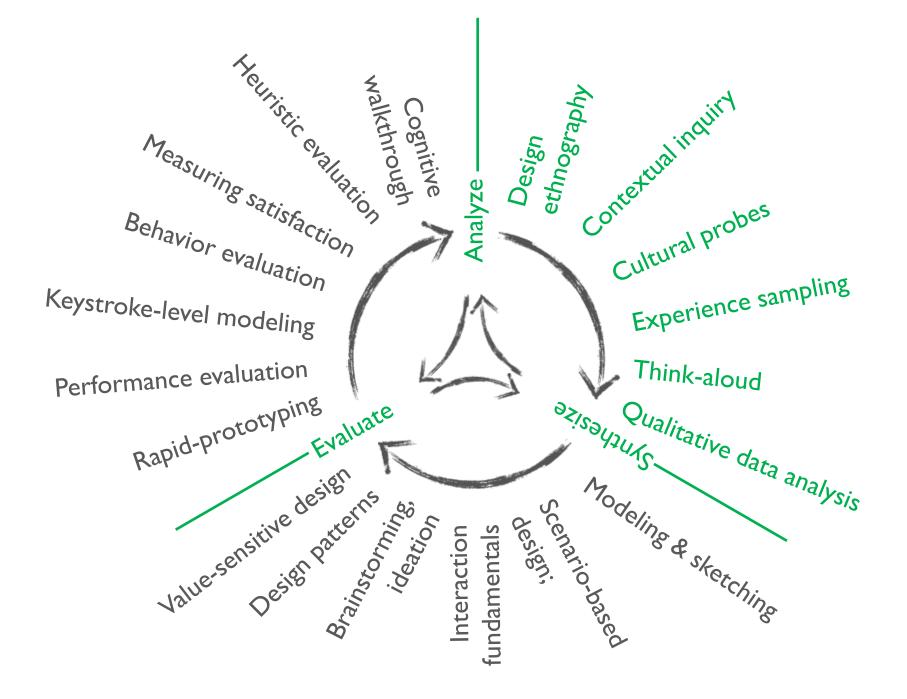
IDEO Deep Dive Video



The Three Pillars

Understanding user experience Ideating for solutions and designing interfaces **Evaluating designed interfaces** OZIUSUSUSSES Evaluate





Understanding User Experience

The user is not like me

"

THE POWER OF USER-CENTERED METHODS

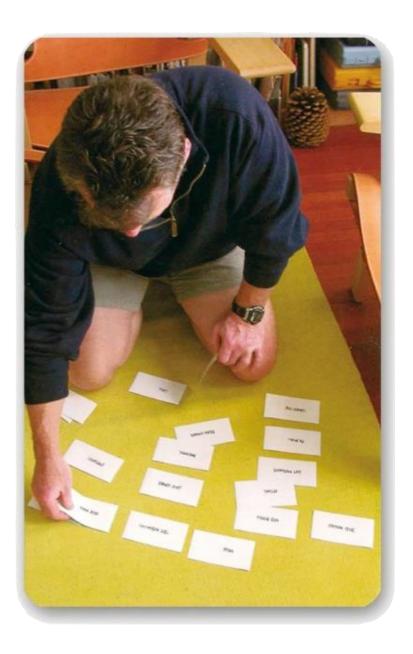
- Help us;
- Understand what people say, do, and think.
- Capture people's physical and social environments.
- Understand work practices, meaning, culture, norms, nuances.
- Access experiences in their natural context.
- Identify breakdowns, workarounds, frustrations.

Designing User Experience

Brainstorming & Ideation

The best way to have good ideas is to have lots of ideas.

— Linus Pauling



Learn	Look	Ask	Try
-------	------	-----	-----

Card Sort

HOW: On separate cards, name possible features, functions, or design attributes. Ask people to organize the cards spatially, in ways that make sense to them.

WHY: This helps to expose people's mental models of a device or system. Their organization reveals expectations and priorities about the intended functions.

In a project to design a new digital phone service, a card-sorting exercise enabled potential users to influence the final menu structure and naming.

IDEO

www.ideo.com



SEVEN BRAINSTORMING RULES

» Defer judgment

There are no bad ideas at this point. There will be plenty of time to judge ideas later.

» Encourage wild ideas

It's the wild ideas that often create real innovation. It is always easy to bring ideas down to earth later!

» Build on the ideas of others

Think in terms of 'and' instead of 'but.' If you dislike someone's idea, challenge yourself to build on it and make it better.

» Stay focused on topic

You will get better output if everyone is disciplined.

» Be visual

Try to engage the logical and the creative sides of the brain.

» One conversation at a time

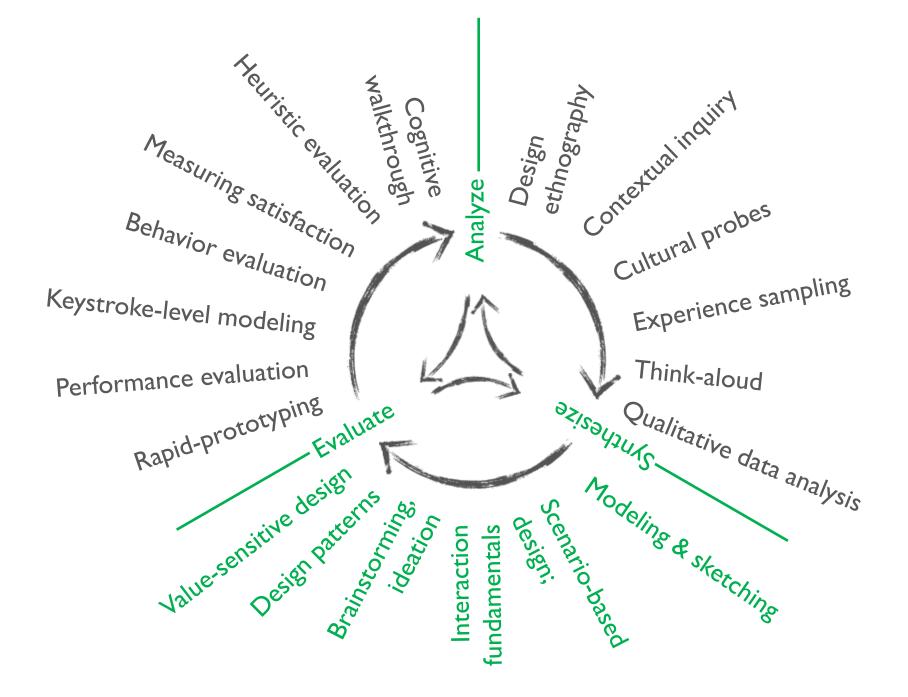
Allow ideas to be heard and built upon.

» Go for quantity

Set a big goal for number of ideas and surpass it! Remember there is no need to make a lengthy case for your idea since no one is judging. Ideas should flow quickly.







Evaluating User Experience

When Are Performance Measures Appropriate?

When you need statistical evidence that you;

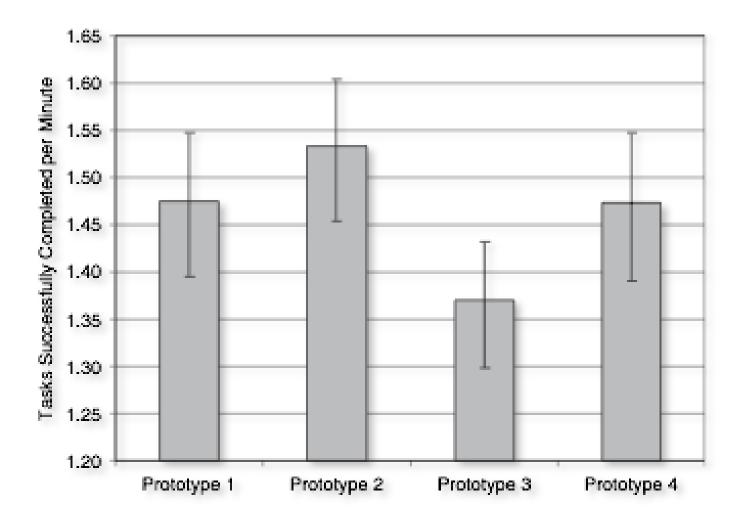
Improve task completion rates,

Decrease number of errors,

Reduce costs,

Improve task completion times.

Success Rates



* Tullis & Albert

When Are Satisfaction Measures Appropriate?

When you need statistical evidence that people;

Perceive your software as usable,

Prefer your software over alternatives,

Favor an alternative design over others.

Measures of satisfaction include enjoyment, desire, preference, etc.

this ballot frequently.

2. I found the ballot

to use.

quickly.

to use.

ballot.

ballot.

to use this system.

Strongly Strongly disagree agree 1. I think that I would like to use unnecessarily complex. 3. I thought the ballot was easy 4. I think that I would need the support of a poll official to be able 5. I found the various parts of this ballot were well integrated. 6. I thought there was too much inconsistency in this ballot. 7. I would imagine that most people would learn to use this ballot very 8. I found the ballot very awkward 9. I felt very confident using the 10. I needed to learn a lot of things before I could get going with this

When Are Behavioral Measures Appropriate?

When you need to measure;

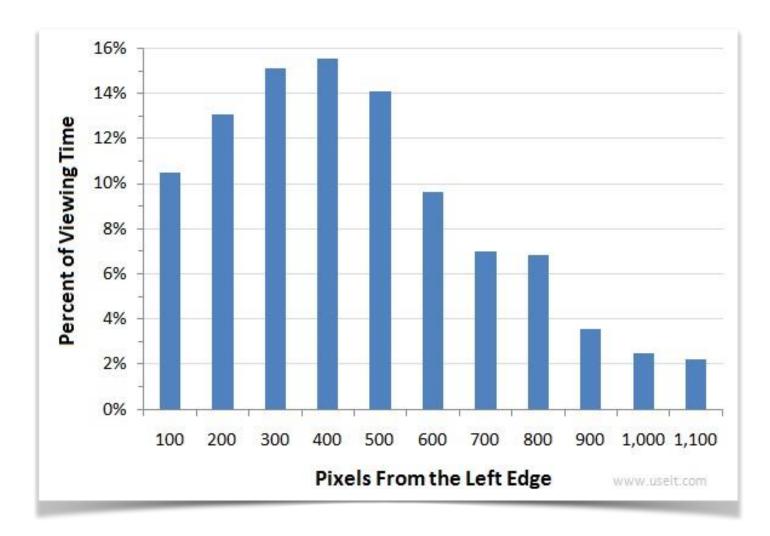
What people do with your software,

Where they click, look, type, etc.,

How much time they spend on dialogs, screens, etc.,

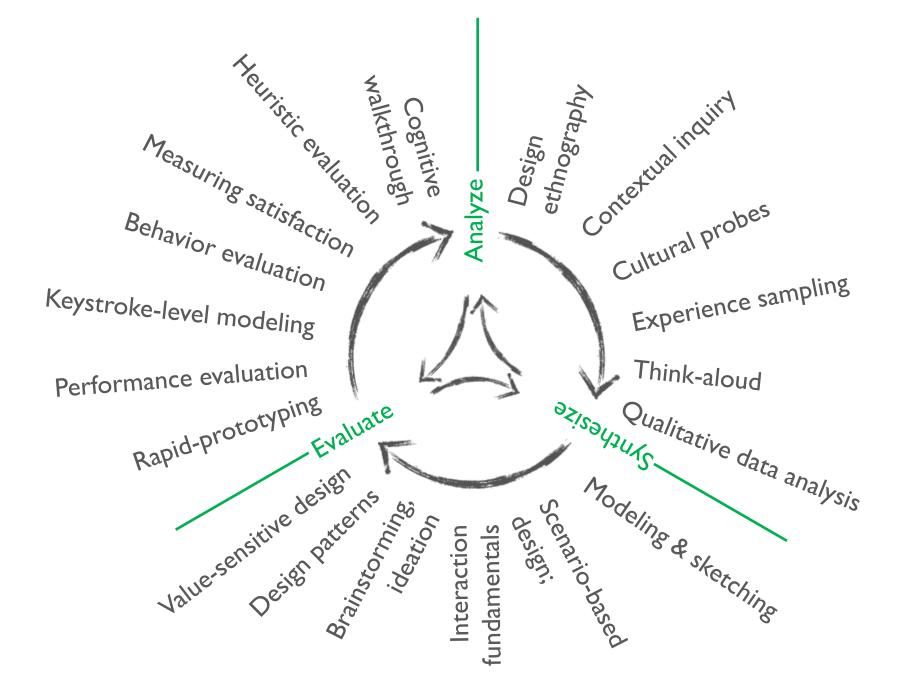
What they say, how they behave, etc.

Gaze

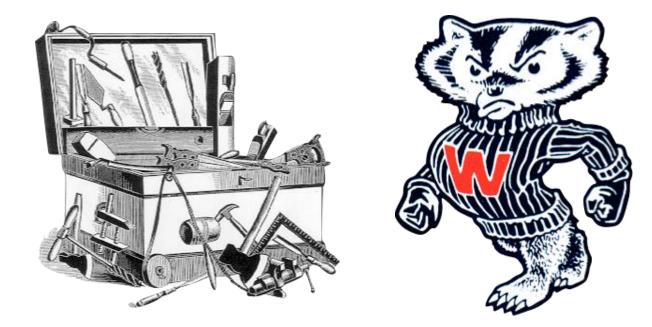




Methods are Tools in a toolbox



By the end of the semester, you will have your very own toolbox



Project Goals

Practice methods learned in the context of a realworld problem

Practice following a design process

Work in teams

Learn about the problem domain

Project Domain

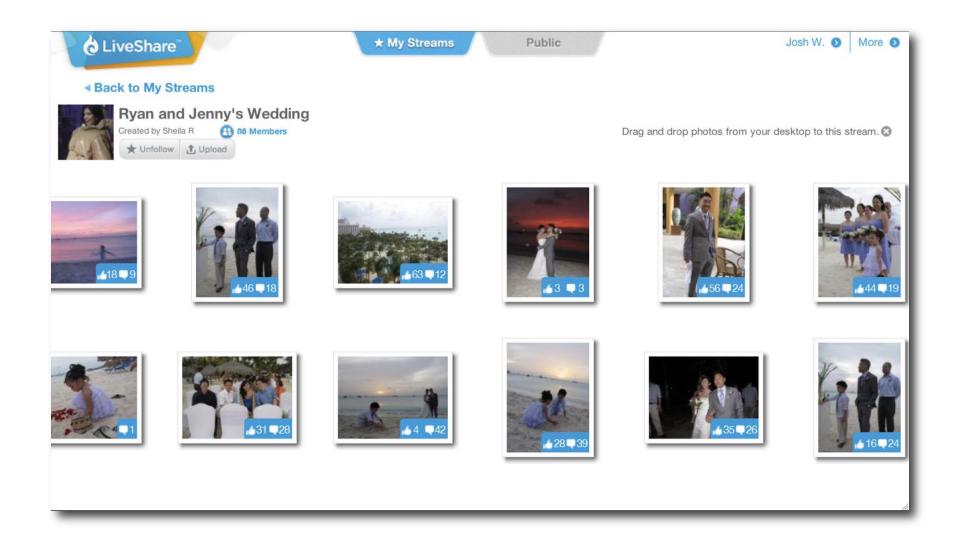
Web apps

Services or products that users access over the Internet in a platform-independent way

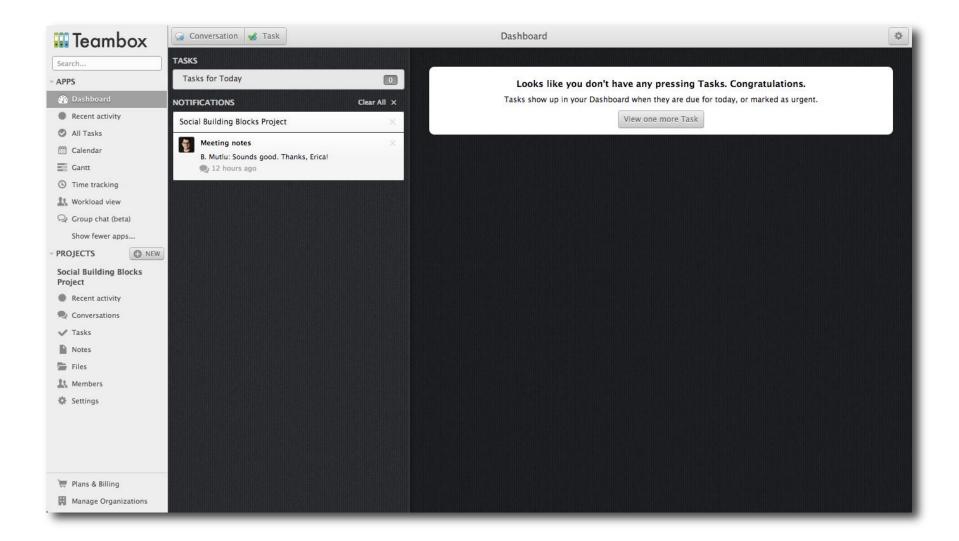
The web-browser is the medium for interaction

Can be on a tablet/netbook/laptop/desktop platform

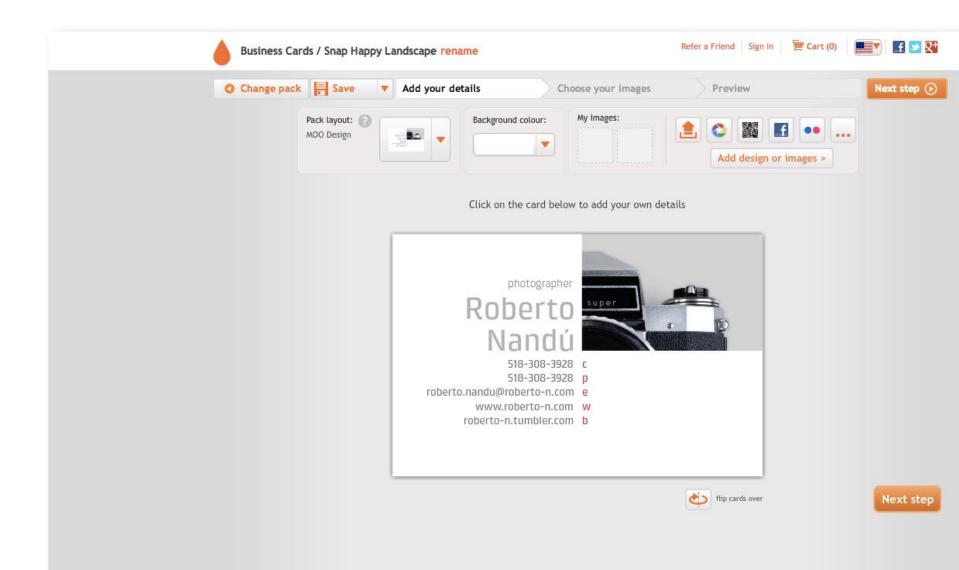
Communication, microblogging, social networking, social bookmarking



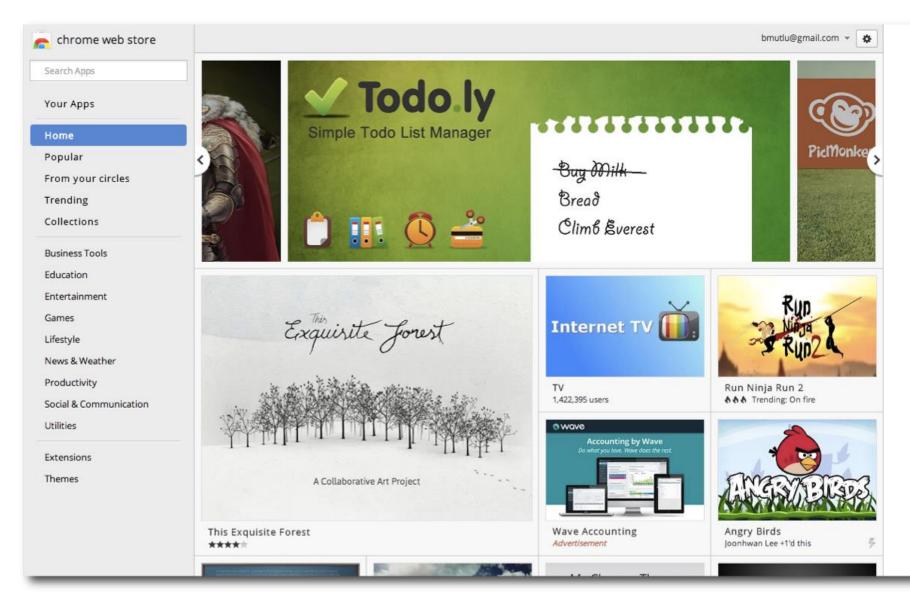
Collaboration, productivity, task management



Web apps to make things



Other web apps you can think of



Examples from previous years





L. Stanley Brysh, DMD, FAAHD, DABSCD Chair, Department of Dentistry Director, Max W. Pohle Dental Clinic Director, General Practice Residency (608) 417-6500 lbrysh@meriter.com

◄ February 2010 ►

Mouse over unavailable times to see next available slot.					21 22 23 2 28 1 2 3	17 18 19 24 25 26 3 4 5 10 11 12
Sun 2/2	1 Mon 2/22	Tue 2/23	Wed 2/24	Thu 2/25	Frl 2/26	Sat 2/2
8 AM	Click here to schedule	Click here to schedule	unavallable	Click here to schedule	unavailable	
9AM	unavailable	Click here to schedule	Click here to schedule	Click here to schedule	Click here to schedule	
0 AM	Click here to schedule	Click here to schedule	unavallable	Click here to schedule	unavallable	
1 AM	Click here to schedule	unavailable	unavailable	unavailable	unavailable	
2 AM	unavallable	unavsilable	This time slot is next available: Mar. 4	unavallable	unavailable	
1 PM	unavailable	unavailable	unavallable	unavallable	Click here to schedule	
2 PM	unavailable	Click here to schedule	Click here to schedule	unavailable	Click here to schedule	
3 PM	unavailable	unavailable	unavailable	unavallable	unavallable	
4 PM	unavailable	unavailable	unavailable	unavailable	unavallable	
5 PM	unavailable	unavailable	unavailable	unavailable	unavailable	



L. Stanley Brysh, DMD, FAAHD, DABSCD Chair, Department of Dentistry Director, Max W. Pohle Dental Clinic Director, General Practice Residency (608) 417-6500 lbrysh@meriter.com

Click on an appointment time below to schedule a visit. Mouse over unavailable times to see next available slot.



Feb 22, 2010 - Feb. 25, 2010 🕟

Sun 2/21	Mon 2/22	Tue 2/23	Wed 2/24	Thu 2/25	Frl 2/26
	Click here to schedule	Click here to schedule	unavailable	Click here to schedule	unavailable
	unavailable	Click here to schedule	Click here to schedule	Click here to schedule	Click here to schedule
	Click here to schedule	Click here to schedule	unavailable	Click here to schedule	unavailable
	Click here to schedule	unavailable	unavailable	unavailable	unavailable
	unavailable	unavailable	This time slot is next available: Mar. 4	unavailable	unavailable
-	unavailable	unavailable	unavailable	unavailable	Click here to schedule
	unavailable	Click here to schedule	Click here to schedule	unavailable	Click here to schedule
	unavailable	unavailable	unavailable	unavallable	unavailable
	unavailable	unavailable	unavailable	unavailable	unavailable
	unavailable	unavailable	unavailable	unavailable	unavailable
Show all	next available				

Next Steps

Start the "understanding" step in the design process

Identify people--i.e., your potential users--that you could talk with about your problem area

Next week is a worksession

Be prepared to work in class and get feedback from me and the TA

Timeline

- Week 0: Team formation
- Week I:Worksession
- Week 2: Interim Presentation
- Week 3: Worksession
- Week 4: Worksession
- Week 5: Final Presentation