

HUMAN-CENTERED DESIGN

Creating Design Goals

A world map in a lighter blue shade is centered in the background. Overlaid on the map are several white line-art icons. In the center of the map, a cluster of lightbulbs is connected by arrows, suggesting a process or flow. To the right of the map, there is an icon of an open box containing three lightbulbs. Another single lightbulb icon is located in the lower right area, over South America.

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Herb Simon and the Ant

- An ant's behavior looks complex, but the complexity is (mostly) in the environment.
- So if we change the environment, we change the behavior.
- Design transforms existing situations into (hopefully) preferred ones.

All design is redesign

- At least for me, that says we ought to have a really good sense of what the existing situations are and what preferred means for us. “preferred” has to do with both the user’s goals and your point of view as a designer.

So far...

- So we have a sense of what people *do* and their high-level values, goals, and contexts.
- That'll help us connect observation to design. What's our lever?

You'll be able to

- When you are designing, what matters?
What should it accomplish?
- Estimate whether different designs are
meaningfully different

You're doing this already

- Design often includes activity analysis *implicitly*
- Problem: leap to (just) one solution.
- Our goal is to make it explicit

Making this explicit

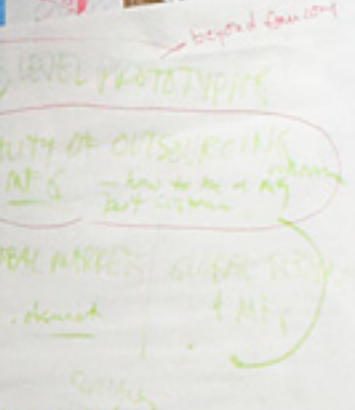
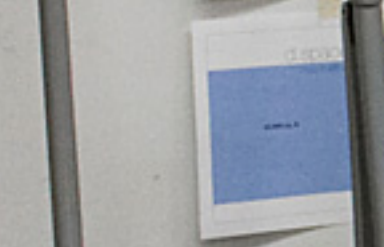
- Gives you a *conceptual* representation
- This increases your mindfulness as a designer, connects you to the texture of the domain, and helps you communicate and discuss with other stakeholders
- Having this intermediate, conceptual representation makes it easier to be creative because you're taking a couple small leaps instead of one big one

The outcome of activity analysis

- What are the steps?
- What are the artifacts?
- What are the goals?
(how you'll measure success)
- What are the pain points?



REPORT/CAFAPOT



HOW TO WIN FRIENDS
CHANGE YOUR WORLD
USE YOUR HANDS
DON'T KELLY SHOW
THE d. school
SUPERHERO SKOOL
LIFE 2.0
DESIGN 2.0
Beyond Gray Matter
Rule Breakers & In
Transcendence
Summer Camp
Design Camp
Innovation Camp
C.A.M.P.
d.CAMP
V.KAMP
Almost like real work
Design Ed
Search + Design

BEST LEADERSHIP +
FACILITATION/C
LEADING BY DOING
PROBABILITY
ITERATION
CREATING CULTURE
HOW TO BUILD A BET
FOR DEVELOPMENT
FUNDAMENTALS OF
HOW TO BUILD A BET
PROCESS - PRO
NEW VENTURE ASSESSMENT
NEGOTIATION CAMP

Example: steps

- Unlock driver's door
- Take a seat behind the wheel
- Insert key in ignition switch
- Turn key fully clockwise
- When engine starts, release the key
- from <http://www.nwlink.com/~donclark/hrd/isd/cognitive-task-analysis.html>

Example: artifacts

- key
- car
 - door-lock
 - ignition switch

Example: goals

- (your point of view comes in here)
- Turn on the car?
- Pick up bread?
- Make a meal?
- Have a satisfying evening?

Example: pain points

- In the narrow version: necessary to put the key in? It's already in the car. Why not just drive off?
- In the slightly broader framing, the pain point could be needing a car to get bread. (Alternatively, bread could be delivered, or you could walk/bike/...)

That helps us create interfaces that...

- From Hackos and Redish: Usable Interfaces
- Reflect workflows that are familiar or comfortable
- Support users' learning styles
- Are compatible in the users' working environment
- encompass a design concept (a metaphor or idiom) that is familiar to the users
- Have a consistency of presentation (layout, icons, interactions) that makes them appear reliable and easy to learn

- Are the things that your interface is designing for something that users actually do -- or might want to do?
Activities can and do change over time
-- often evolving along with technology
-- and you don't need to just make current paths easy.

Activity Analysis is easiest for...

- Workflows like doing taxes or travel planning
- Repeated activities, like scheduling (why does it take 17 emails?)

Challenge: we don't design tasks

- Activities and objects don't map 1:1
(a smartphone is not just one “activity”)
- We design artifacts. So a forum has multiple tasks.

8636 **FW: [SERC 21127:] Upcoming Kayak Piloting Clinics**

... From: [REDACTED] f@... Cc: [REDACTED] er@... Sent: Wed, Mar 20, 2013 3:44 PM PDT
[SERC 21127:] Upcoming...

8637 **quick report from tonight's March Board meeting**

Greetings... Gratitude was sent our way by NPS for the work on Olga ...can't thank you enough for the time, the
the craft and the care...

8638 **Re: quick report from tonight's March Board meeting**

I for one am INCREDIBLY appreciative of these notes, the communication and information is WONDERFUL.
Â Â S [REDACTED] Â ... From:...

8639 **Re: quick report from tonight's March Board meeting**

Yes, it's great to know this stuff and I am in awe of your energy and dedication. Regards, Madeleine ... [Non-text
message have been removed]...

8640 **Re: quick report from tonight's March Board meeting**

Yay, Diane. thank you so much. ... From: [REDACTED] r@...> To: "[REDACTED]
com>, "Diane Walton"...

8641 **Why They Posted "Danger: BIOHAZARD" on Tuesday**

Hey all, I was curious about why those "Danger: Biohazard" signs were posted on the Beach Tuesday, so I did a
around the Web. It turns out...

8642 **Re: Why They Posted "Danger: BIOHAZARD" on Tuesday**

Mark: Thanks for this information. What I take away from this experience is that we must be very careful to not
the day before the SF PUC ...

8643 **Mar. 22 Happy Hour: "Paul and Melissa are coming! Paul and Melissa a**

Dolphins, Come have some fun next door Friday night at an extra special Happy Hour. Same bat time, same b
we get to hang out with our former

Have multiple related activities

- The same person uses the same design to achieve slightly different things
- Also, different people may do things slightly differently
- Because they have slightly different goals, expertise, ...
- For empathy, keep 'em human

Recap

- What are the steps?
- What are the artifacts?
- What are the goals?
- What are the pain points?

You can and should adapt this

- More or less formal?
- Diagrams? Text? Pictures? Video?
- Narrow or broad?
 - Individual v. group viewpoint?
- Include more or other things
like joy points, not just pain points

Be creative and
have fun!