user research methods
second assignment
second assignment

silly product ideas

as noted in the slides and online assignment
ideas should be visual
at least 10 ideas
EACH A SEPARATE IMAGE
with a title on each idea

Pizza Pop

"An incubator for all your pizza needs"
second assignment
silly product ideas

- Artist's Multi-Tool
- Loose Leaf Paper Box
- Giant Pez-Style Comic Dispenser
- Tube File
- Art Bandolier
- Artist's Block
second assignment
silly product ideas

FINGER CORD ORGANIZER

MOUTH + TEETH HANGING CLOSET ORGANIZER

MAN-SHAPED CLOTHING HANGER

BEAUTY ORGANIZER W/ PRACTICE HAIR
second assignment
silly product ideas

Idea 3: A sandwich folder

Kitchen
second assignment
silly product ideas

3.) “Spice-Rack”

Real Deer (or can be fake)

Spice Holders (can hold 10 spices!)

Mounted
second assignment
silly product ideas

Let your bananas ripen in luxury!
Buy your banana hammock today!
second assignment
silly product ideas

3rd IDEA: Robot Easel
- Pros:
  - Hands free painting!
  - Collapsible
  - Would encourage kids to grow up
- Cons:
  - Kind of creepy
  - Expensive to make
  - Heavy

2nd IDEA: All-In-One Charcoal Kit
- Pros:
  - Makes charcoal transport & storage cleaner
  - Compact
- Cons:
  - Vacuum motor would be problematic
  - Would need to be waterproof
  - Would need to be significantly larger to do many gools

8th IDEA: Medication Pet Dispenser
- Pros:
  - Would encourage kids to take their medication
  - Too cool! Can be customized
- Cons:
  - Wouldn’t hold all sizes of medication
  - Doesn’t work for liquid medication
  - Might be costly to mass produce

LAP TOP STORAGE
Mechanical arms
Storage drawers
Easel base
Vehicle base

STORAGE
Charcoal storage
Vaduum base
Charcoal container container

POT STORAGE
Charcoal container container
Charcoal storage
Charcoal container container

POT STORAGE
Charcoal container container
Charcoal storage
Charcoal container container

POT STORAGE
Charcoal container container
Charcoal storage
Charcoal container container
The total quantity of ideas produced is strongly correlated with participants average novelty scores.
**second assignment**

mind maps!

some grad section data

assuming 1 hour of work

120 nodes = 2 nodes (words) per minute

not enough content to fully explore the domain

potentially getting off topic
second assignment
mind maps!

High Depth

High Breadth
(greater idea space)

balance of novelty and relevance

maybe not so relevant

more creative ideas
second assignment
mind maps!

how much do we branch out?
second assignment
mind maps!

free thinking vs. over thinking
second assignment
mind maps!
explore the space
second assignment
mind maps!
explore the space
second assignment
mind maps!
explore the space
second assignment
mind maps!
explore the space
Organization

- Important documents - Safe
- Office - Work area - Build at home
- Computers - Work area - Keyboard
- Notes - Calendar
- Cake - Muffins
- Office - Work area - Build at home
- Computers - Work area - Keyboard
- Notes - Calendar
- Cake - Muffins
- Office - Work area - Build at home
- Computers - Work area - Keyboard
- Notes - Calendar
- Cake - Muffins
elaboration

no extraneous details

6 extraneous details
second assignment

choose a sub-theme

interviewing users/experts
and doing research in this area
for problem/opportunity finding

Candy Storage
Kids Home & Travel Storage
Pattern-Based Storage
media centers (TV stands, Workstations, etc.)
Under the desk
Animals
Physical Music
# Assignment 2

<table>
<thead>
<tr>
<th><strong>Outline/Timeline Check</strong></th>
<th>1 point if completed on time</th>
</tr>
</thead>
</table>
| **Do something fun**       | 1 = A short description of what you did and why with a photo! This fun activity should be something you don’t typically do and should be something that you are not already planning to do anyway  
0 = No documentation what you did. |
| **Mind Map**               | 2 = A well formatted image of your mind map that explores the domain of “organization.” Every item on the map has text and text is clean and legible. The mind map shows that you thought through many of the topics related to the overall theme. This map should reflect at least an hour of work. Your map should also have visuals in addition to text.  
0 = No mind map image |
| **Suggested Themes**       | 1 = A list of 3 specific themes that you think are interesting to explore within the domain of “organization.” These themes should be of the correct scope as described in class and pulled directly from your mind map. For each include a statement on why this is a worthy area of exploration for problems and needs.  
0 = Did not list themes |
| **10 Silly Ideas**         | 2 = 10 ideas presented with a cleanly documented sketch and title  
0 = Did not include any idea sketches |

| **Peer Evaluated Presentation** | Scaled out of 1 (in class) |
| **Peer Evaluated Mind Map**     | Scaled out of 1 (in class) |
| **Peer Evaluated Ideas**        | Scaled out of 1 (in class) |
prompts

- technology push
- market pull
- product
- process
- need, or opportunity
- product or process
- technology

context → problem need, or opportunity → product

ethnography observation → market pull

product

technology
ethnography (folk + write)
documenting customs of individuals and cultures
or
science of contextualization
design detective - finding hidden problems, needs, and opportunities

experience, observe, ask
female brain is predominantly hard wired for empathy. the male brain is predominately hard wired for understanding and building systems - simon baron-cohen.

the ability to imagine yourself in someone else’s position and to intuit and feel what that person is feeling.
ethnographic tools
level 1 - ask

- surveys
- interviews
- focus groups
ethnographic tools
level 1 - ask

Likert “lick-urt” scale

central tendency bias
forced choice
higher point / higher mean
keep it simple and objective
open ended questions: _____________________
ethnographic tools

level 1 - ask interviews

encourage stories
no binary, yes/no questions

use open questions like:
tell me about an experience you had with...
tell me about the last time you...
can you show me how you...
can you walk me through how you...

be neutral
ethnographic tools

level 1 - ask interviews

"so what don’t you like about opening pickle jars?"

BIASED

OBJECTION!
LEADING!

AND LOADED
ethnographic tools

level 1 - ask interviews

**encourage stories**
no binary, yes/no questions

**use open questions like:**
tell me about an experience you had with...
tell me about the last time you...
can you show me how you...
can you walk me through how you...

**be neutral**

**keep them talking**
ask why, why why
ethnographic tools

level 1 - ask

interviews

‘The ability to ask the right question is more than half the battle of finding the answer.’ - Thomas J. Watson

i don’t shave very often

why? i don’t like shaving

why? it takes too much time

why? i have to clean up the hair in the sink

why? don’t want the hair down the drain

why? the drain can’t handle hair

getting to the root of the problem may uncover opportunities
ethnographic tools

level 1 - ask interviews

encourage stories
no binary, yes/no questions

use open questions like:
tell me about an experience you had with...
tell me about the last time you...
can you show me how you...
can you walk me through how you...

be neutral

keep them talking
ask why, why why
don’t be afraid of silence
don’t interrupt
have backup questions

record
with photos
voice recorder or video or ideally someone else taking notes
ethnographic tools
practice (with the IDEO Bootcamp)
find problems, opportunities, ideas

0 - partner, each person asking about packing their stuff for school today
1 - interview 5 min (then switch)
2 - dig deeper 4 min (then switch)
3 - capture finds (needs and insights) - 5 min
4 - define problem statement - 3 min
   ___ needs to ___ because ___
5 - generate a few alternative ideas - 5 min
6 - share your ideas and get feedback - 5 min each
7 - reflect and generate a new solution - 3 min

encourage stories
no binary, yes/no questions

use open questions like:
what is your most memorable experience with...
tell me about an experience you had with...
tell me about the last time you...
can you show me how you...
can you walk me through how you...

be neutral

keep them talking
ask why, why why
don’t be afraid of silence
don’t interrupt
have backup question
ethnographic tools
practice (with the IDEO Bootcamp)
find problems, opportunities, ideas

“I get frustrated cleaning the cutting board after I prep stuff”
(why?)
“because it doesn’t fit in my sink and so usually leave it messy and it gets sticky”

needs: clean, cut, prep, fit, relax, unstick

insights: it is difficult to clean cutting boards, people do not clean things outside of the sink, some people do not clean their cutting surfaces well, cleaning can be frustrating

Sally (a busy 35 year old mom who loves cooking for friends)

needs a way to:
prep/cut food with less mess
clean cutting boards
fit large items in her sink
unstick sticky stuff from cutting boards
relax while cleaning

because:
some cutting boards can be difficult to clean
not all cutting boards are easily cleaned in sinks
people do not want to clean things outside of the sink
some people do not clean their cutting surfaces well
cleaning tasks can be frustrating
‘The ability to ask the right question is more than half the battle of finding the answer.’ - Thomas J. Watson

**ethnographic tools**

...needs a washing machine that uses less water...
...needs a washing machines that wastes less water...
...needs a washing machines that can clean without water...
...needs a sustainable way to maintain clean clothes...

solutions are no longer tied to the embodiment of a washing machine

people don’t need drills, they need holes in things
ethnographic tools

level 1 - ask 

(un) focus groups

"They just ensure that you don’t offend anyone, and produce bland inoffensive products."
- Jonathan Ive
ethnographic tools

level 1 arguments

most customers are good at comparing your current offerings with their current needs, but they are not so good at helping you plan for new-to-the world stuff - tom kelly

radical technological innovation seldom emerges by chasing users. “if Ernesto Gismondi and his Artemide team had gone into people’s homes to take pictures of how they use lamps, change bulbs, and turn lights on and off, they would have found better ways of changing bulbs and switching lights on and off. That is useful but not when companies are investing in radical innovation of meaning. -verganti

“for something this complicated, it’s really hard to design products by focus groups. A lot of times, people don’t know what they want until you show it to them”
- Steve Jobs on the iMac

people don’t know what they want. they know what they know
ethnographic tools

level 2: observe

“stalking the user (legally)"

“go about, and constantly, as you go, observe, note and consider the circumstances and behavior of men... the actions of the bystanders who separate them or look on. and take note of them with slight strokes in a little book which you should always carry with you... for the forms, and positions of objects are so infinite that the memory is incapable of retaining them, wherefore keep these [sketches] as your guides and masters.

- leonardo da vinci
ethnographic tools
level 2: observe
Heisenberg uncertainty principle

sensors interfere with what they are trying to sense

"I've told you before, dear: there's people-watching, and there's people-watching."
ethnographic tools
level 2: observe
ethnographic tools
level 2: observe success stories

IDEO kids toothbrush design
ethnographic tools
level 2: observe success stories
ethnographic tools

level 2: observe the product landscape

- More on observation on Thursday
- Benchmarking in Module 5

for inspiration
for knowledge of trends/style
for knowledge of current solutions
for knowledge of current brands
ethnographic tools

level 3: experience

emersion
day in the life
shadowing

be the customer
“bodystorming”

empathy tools
thinking in experiences

level 3: (thinking about overall) experience
A storyboard is a series of panels that depict key scenes, actions, visuals, and annotations that define the highlights of a user experience.
ethnographic tools
level 3: experience fail

Annoying:
Removing your shoes, coat, laptop, and putting them into little plastic bins.

More annoying:
The feeling that you have to do this at a thousand miles per hour because of all the people behind you.

solving the wrong problem

the oatmeal
think through the use experience with bodystorming, storyboarding, or actual use!
ethnographic tools

unpacking

quotes people said that were of interest?
what did people like, dislike, want, not want?
what behaviors and actions did you observe?

synthesize each cluster into an overall finding/insight
assignment 3
user research
read ethnography primer and IDEO Bootcamp Bootleg
assignment 3
user research

the goal is to uncover problems and opportunities.

focus on your sub-theme

1) ASK: conduct three separate interviews with experts or potential users (don’t interview your roommate, your classmate, your family or your best friends) related to your sub-theme. Document any activities or objects with photos. Take notes. Interviews should be longer than 30 minutes (need time to develop a connection and get quality stories), but also be mindful of time (no longer than 1 hour).

2) OBSERVE: people engaging in activities (e.g. packing groceries) and/or environments (someone else’s junk drawer) related to your sub-theme. This is separate from the three interviews. Subjects here should not know they are being observed. You should also not observe your own stuff (e.g. your own closet). Document with photos and take notes.

(Note: During the interviews, you should ask questions that allow you to make observations in the actual settings and with current product. However this does not count towards the Observe Task)

3) OBSERVE: survey the product landscape to see what exists already in your sub-theme. This involves physically going to stores and taking photos and notes. You should explore at least three different marketplaces (at least 2 must be in person).

4) Unpack all research together and organize your research visually.

5) List major insights and craft three problems/opportunity statements (not solutions or products yet).

With photos: Ask permission. Remove identity if needed
# Assignment 3

**Outline/Timeline Check**
1 point if completed on time

<table>
<thead>
<tr>
<th>Activity</th>
<th>Requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ask (interviews)</td>
<td>3 = 1 point for each interview documentation. Interviews should not be with your close friends and family or with other students in the class. Documentation should include the questions you asked, a short summary of the person interviewed and why, photos from demonstrations and things they showed you, a summary of the conversation, and 3-5 key quotes from the person. You should not use the interviewees full names on this public blog. 0 = No Documentation</td>
</tr>
<tr>
<td>Observe (part 1)</td>
<td>1 = Documentation with photos and a text summary of an observation of things and/or interactions related to the sub-theme. This portion should not involve the same people involved in the interviews. This should also not be an observation of yourself or your things. This should include some quantitative and qualitative assessment. 0 = No Documentation</td>
</tr>
<tr>
<td>Observe (part 2)</td>
<td>1 = A description and visuals of the product landscape as you see it in three different market spaces (at least 2 must be in person). The purpose of this is to see trends, get inspiration, gain knowledge of the current product space. Your notes should reflect this. 0 = No Documentation</td>
</tr>
<tr>
<td>Market Survey</td>
<td>1 = A description and visuals of the product landscape as you see it in three different market spaces (at least 2 must be in person). The purpose of this is to see trends, get inspiration, gain knowledge of the current product space. Your notes should reflect this. 0 = No Documentation</td>
</tr>
<tr>
<td>Unpacking</td>
<td>1 = Visual and text description of your unpacking of the interviews and observation 0 = No Documentation</td>
</tr>
<tr>
<td>Major Insights</td>
<td>1 = A listing of insights (at least 10) and a reference to where/who they came from (interviews, observations). These insights should be clearly based on your research. 0 = No listing of insights</td>
</tr>
<tr>
<td>Problem Statements</td>
<td>1 = 3 problem statements formatted in proposed style: “___ needs a way to ___ because ___” and are based on research from this assignment. Statements should not be solutions or ideas. The first blank can be a group and not an individual (e.g. “children need…”, “home cooks need…”, “people who have lots of shoes need…”). 0 = No problem statements listed</td>
</tr>
</tbody>
</table>

**Instructor Evaluated Results**
Scaled out of 1 (in class)

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**Assignment Details**
- Outline/timeline & Qualtrics 3
- Due tomorrow at 10pm 10/4
- Blog due 10/11
- Peer review due 10/13

Late Peer Reviews are NOT grades … see syllabus

**Post Title:** user research
questions!