# PV 267 - UX workshop

Class #2 December 17

Tereza Novotna



# Recap of heuristic principles



# 1 Visibility of System Status

**Definition** The design should always keep users informed about what is going on, through appropriate feedback within a reasonable amount of time.

Knowing what the current system status is can help users learn the outcome of their prior interactions and determine next steps.

Predictible interactions create trust in the product as well as the brand.

- Tip: Communicate clearly to users what the system's state is — no action with consequences to users should be taken without informing them.
- Tip: Present feedback to the user as *quickly* as possible.
- Tip: Build trust through open and continuous communication.



1 "You Are Here" maps

Interactive mall maps have to show people where they currently are, to help them understand where to go next.

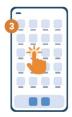
2 Checkout flow

Multistep processes show users which steps they've completed, they're currently working on, and what comes next.

Phone tap

Touchscreen Uls need to reassure users that their taps have an effect — often through visual change or haptic feedback.







## **Match between System** and the Real World

**Definition** The design should speak the users' language. Use words, phrases, and concepts familiar to the user, rather than internal jargon. Follow real-world conventions, making information appear in a natural and logical order.



The language you should use depends very much on your specific users.

- Tip: Ensure users can understand meaning without having to go look up a word's definition.
- Tip: Never assume your understanding of words or concepts will match those of your users.
- Tip: User research will help you uncover your users' familiar terminology, as well as their mental models around important concepts.

#### 1 Stovetop controls

When stovetop controls match the layout of heating elements, users can quickly understand which control maps to each heating element.

#### 2 "Car" vs. "automobile"

If users think about this object as a "car," use that as the label instead.

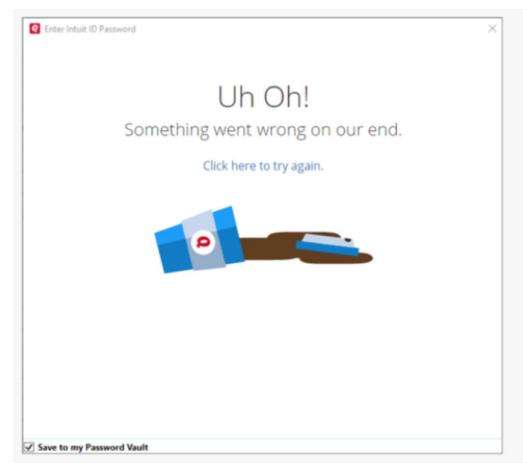
#### 3 Shopping cart icon

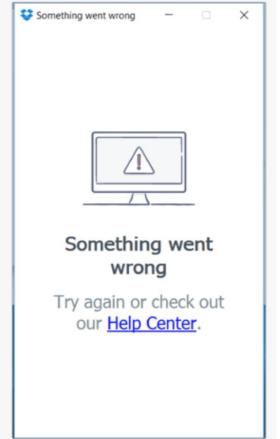
A shopping cart icon is easily recognizable because that feature serves the same purpose as its real-life counterpart.









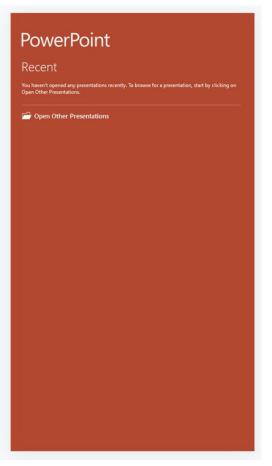




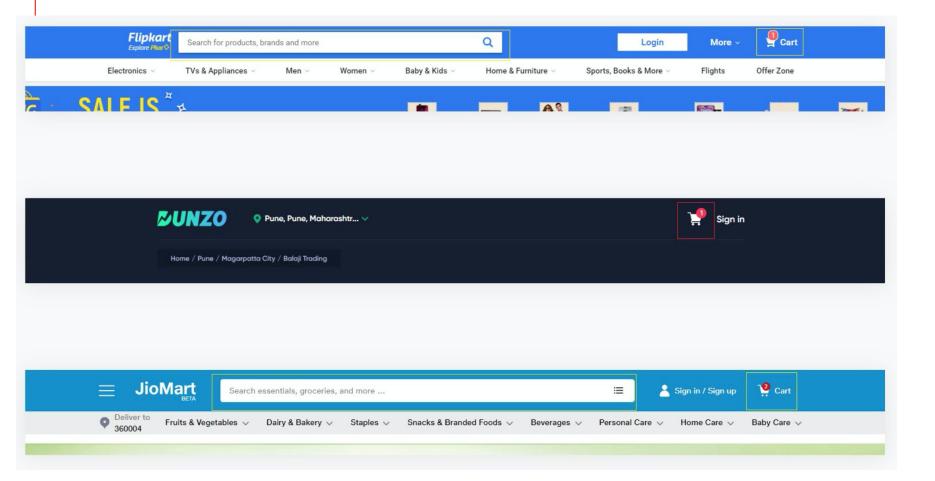
















# 4 Consistency and Standards

**Definition** Users should not have to wonder whether different words, situations, or actions mean the same thing. **Follow platform and industry conventions.** 

Jakob's Law states that people spend most of their time on products other than yours. Failing to maintain consistency may increase the users' cognitive load by forcing them to learn something new.

- Tip: Improve learnability by maintaining both types of consistency: internal and external.
- Tip: Maintain consistency within a single product or a family of products (internal consistency).
- Tip: Follow established industry conventions (external consistency).



1 Check-in counter

Check-in counters are usually located at the front of hotels. This consistency meets customers' expectations.

2 Design system

Using elements from the same design system across the product lines lowers the learning curve of users.

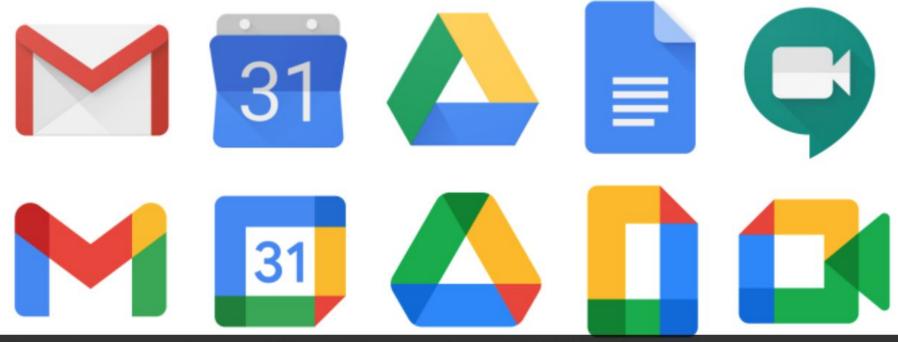
3 Notifications

A standardized notification design provides a similar but distinguishable look and feel for different app pop-ups.





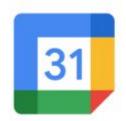




Comparison between Google's old icons (top) and new (bottom), IMAGE: TechCrunch









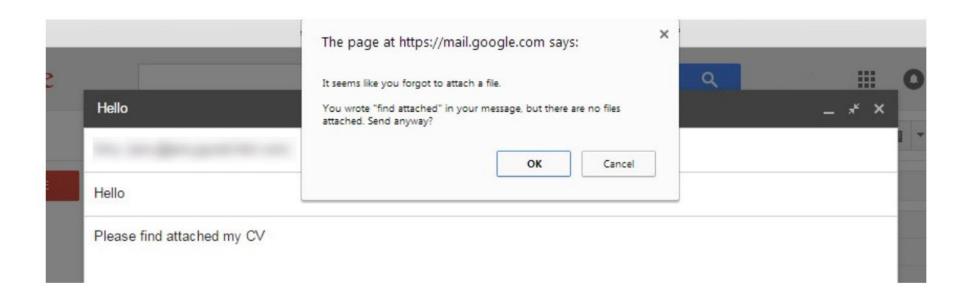






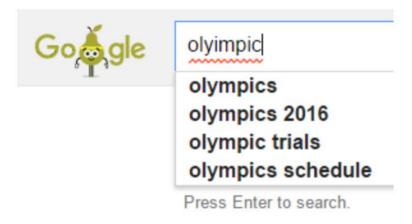








Below is an example of Google Search trying to correct my spelling:





## 5

# **Error Prevention**

**Definition** Good error messages are important, but the best designs **carefully prevent problems** from occuring in the first place. Either eliminate error-prone conditions, or check for them and present users with a confirmation option before they commit to the action.



There are two types of errors: slips and mistakes.

Slips are unconscious errors caused by inattention.

Mistakes are conscious errors based on a mismatch between the user's mental model and the design.

- Tip: Prioritize your effort: Prevent high-cost errors first, then little frustrations.
- helpful constraints and good defaults.
- Tip: Prevent mistakes by removing memory burdens, supporting undo, and warning your users.

1 Guard rails

Guard rails on curvy mountain roads prevent drivers from falling off of cliffs.

► Tip: Avoid slips by providing ② Airline confirmation

The confirmation page before checking out on airline websites gives users another chance to review the flight details

3 Date selection on calendar

Offer good defaults and set boundaries when people book services by dates. Grey out unavailable options.







# The power of sketching

Everybody should draw as much as possible

Visual note-taking sticks to your mind

Many designers rely solely on digital tools as they lack confidence and time in their drawing abilities

There is always a good reason to draw



## "I cannot draw"



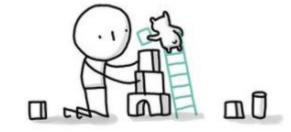
Sketched instructions remove the need for words. Making this easy to understand, no matter your native language.



## Everybody can draw.

Unless you wish to be an artist, your drawings do not need to be beautiful: they need to be able to convey your point.

- Visual information is processed 60,000 faster than text by the brain
- Sketching is functional it is about generating ideas, solving problems, and communicating ideas more effectively with others.
- Ugly gets the job done just fine!
- Great tool for rapid idea generation pen and paper works just fine
- Freedom to explore alternatives
- Sketches are unfinished and loose they invite commentary and discussion
- This takes little time and can be quickly thrown away





## Anybody - absolutely anybody - can sketch a great idea.

Imagine you've got a great idea. You've been thinking about it for weeks. You go to work, describe the idea to your teammates, and . . . they just stare at you. Maybe you aren't explaining it well. Maybe the timing isn't right. For whatever reason, they just can't picture it. Totally frustrating, right? It's about to get worse.

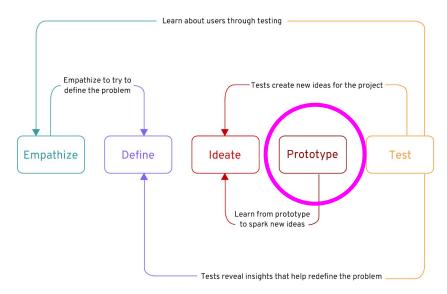
- Sketching is the fastest and easiest way to transform abstract ideas into concrete solutions
- Once the idea become concrete, it can be critically and fairly evaluated by the rest of your team





# Wireframing and prototyping

### **DESIGN THINKING: A NON-LINEAR PROCESS**



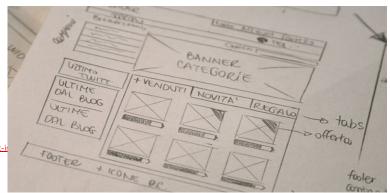


### Wireframe

- A wireframe is a graphical skeleton of a website, that guides the content and concepts of the pages, and helps designers and clients to discuss the details of the website building
- The simple wireframe is a kind of low fidelity design, it consists lines, boxes, and grayscale colors.

### Watch:

https://www.youtube.com/watch?time\_continue=124&v=8-vTd7GRk-w&feature=em

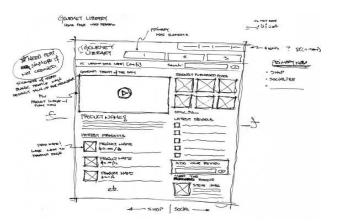




# Low fidelity vs High fidelity

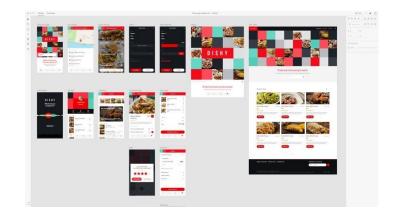
### Used when

- high level ideas
- key features of screen or widget
- general concept of a design
- show examples

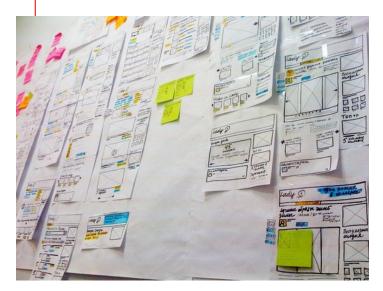


### Used when

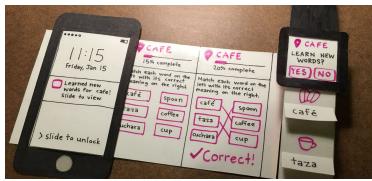
- a full story that incorporates visual design elements
- conceptually complete design





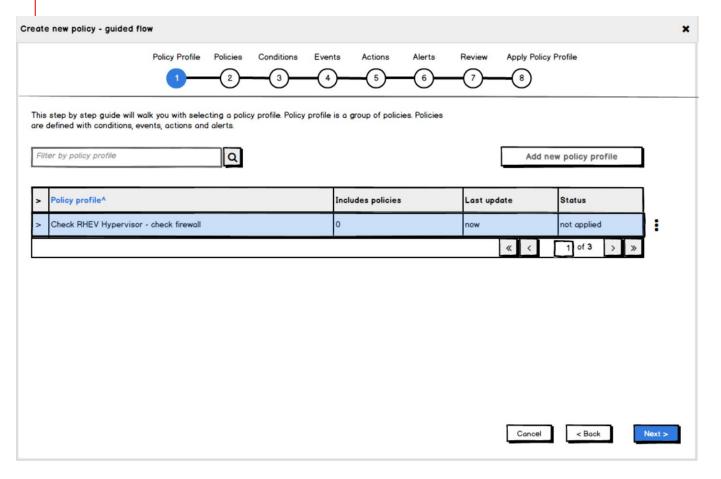




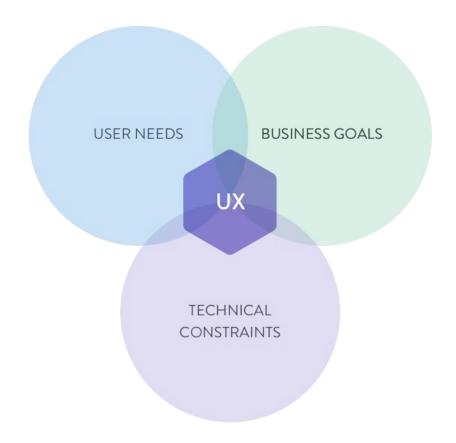














## Paper prototypes

- Communicate your ideas quickly using materials that are versatile and cheap.
- Can help you gather feedback about an idea in many ways, so first,
  plan on what you want to achieve with your prototype
- Don't be afraid to try something and throw it away. You just learned something valuable by finding out what won't work.



# **Prototyping tools**

- InVision
- Sketch
- Marvel
- Balsamiq
- Figma
- Google Slides
- Keynote
- Slides
- Adobe XD



## **Example of prototypes**

- Prototyping helps with identifying and formulating the design and saves time
- Draft design precedes the development
- It is a process to significantly reduce the time to develop a site
- It gives the customer a complete idea of how the site will look like in the final result
- A prototype can be user tested as well
- Risk reduction, iterating at a lower cost
- Provides feedback on how the final product will look like

Let's look at some prototypes



# Thinking outside of the box

- Even silly or impractical ideas can evolve into their best work
- ► Think differently, unconventionally, from a new perspective
- Creative thinking





# Let's review what you did last time for the messaging app

 $\frac{https://app.mural.co/t/imperative3workshops1726/m/imperative3worksh}{ops1726/1607359508206/dca36c4d102f9df0efab991f7a11ad2d96e4d64}{\underline{b}}$ 



#### **EXERCISE** in Mural

Crazy 8's = fast sketching exercise that challenges people to sketch eight distinct ideas in eight minutes. The goal is to push people beyond their first idea, by suppressing self-judgement and making their ideas tangible.

"You'll need to come up with the most ridiculous, silly, stupid solution to make the user problem even graver than before. Generate the worse possible ideas you can think of and stop at nothing."

8'On your own 5'In a group

Identify the best 3 ideas

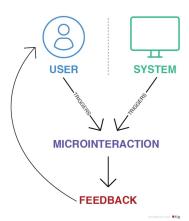


# Share your crazy 8's



## Micro interactions

- Many of our everyday interactions with computer systems fall under the large umbrella of microinteractions
- One of the greatest joys of using technology comes through user empowerment and engagement



Source

https://www.nngroup.com/articles/microinteractions/



## **Examples**

- Many of our everyday interactions with computer systems fall under the large umbrella of microinteractions
- One of the greatest joys of using technology comes through user empowerment and engagement



#### **EXERCISE**

Select one idea that you developed in the crazy 8's

Create sketches or even high fidelity options, possibilities of that interaction.

**Tools:** Use paper and pen, take your time to think it through just with paper. If you feel you are well advanced, you can try black and white wireframe in Figma - here is a nice library.

https://www.figma.com/file/xJji55T4uUp7YF05uuAg0p/Wireframing-(Copy)?node-id=0%3A1

**Goal:** You should end up with wireframes simulating the interaction step by step. This should get you thinking about the details.



## **Introduction to Figma**

- We are using Figma as the main prototyping tool. Personally, I work in Sketch - but that runs only on Mac and the free trial is limited as it expires early on. Figma runs free and in the past years is becoming very popular especially for its ease of use and functionality.
- If you are not familiar with this tool, here are few tutorials to help you get started:
  - https://www.youtube.com/watch?v=jk1TOCdLxwU&feature=emb\_logo&a
    b channel=JesseShowalter
  - https://www.youtube.com/watch?v=tdy1bo5eAgA&feature=emb\_logo&a
    b\_channel=AJ%26Smart
  - https://www.youtube.com/watch?v=cCNLD5IZY34&feature=emb\_logo& ab\_channel=CharliMarieTV



### Homework for Jan 7

- Bring your sketched interactions to live in high fidelity via Figma
- Share several options of interactions that you considered (mark it in your prototype too)
- Make sure you have well defined use case with what the end user is trying to do
- Get familiar with Figma (links are in our class presentation)
- Find the right design kit for your messaging app you are considering (simple google search for Messenger/Whatsapp/iMessage & Figma gives you design kits to experiment with)
- An example: Messenger UI kit https://www.figma.com/file/URGG5e2GSZXXfIHnYgulGk/SWD-(M essenger-UI-Kit)-(Community)?node-id=25445%3A4872
- Bring your work to the next class (upload it to homework assignment)



# I wish you happy holidays



