Visual Information Design

Prof. Lydia Chilton COMS 4170 24 January 2022



Homework accepted until Wednesday night.

Homework 1: Usability Heuristics and Information Design

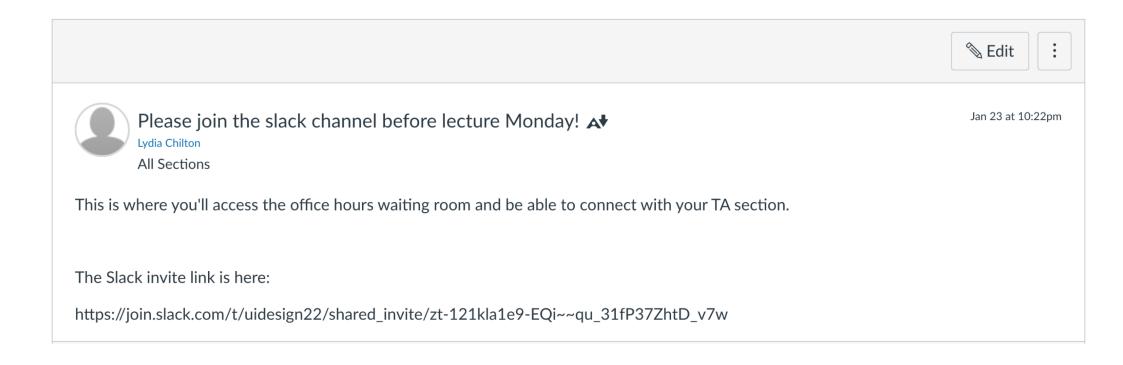
Warm up: due Friday 1/21 @ 11:59pm on Courseworks

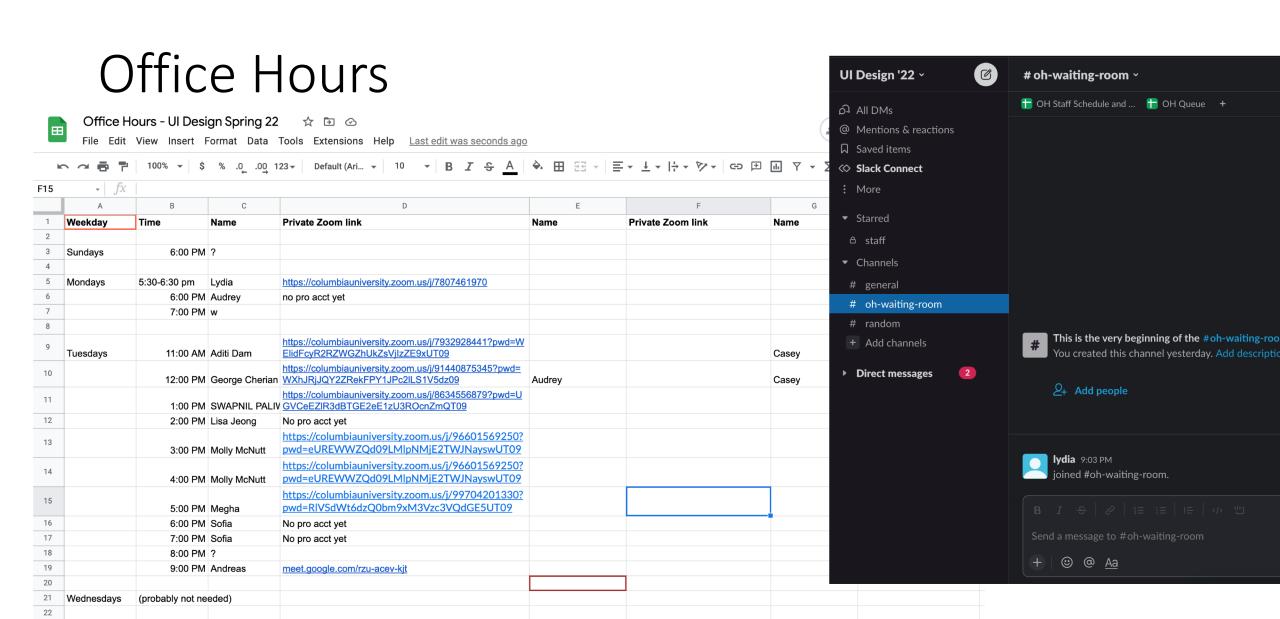
Main: due Tuesday 1/25 @ 11:59pm on Courseworks.

We will accept the Main assignment without late penalty until Wednesday 1/26 @ 11:59pm

Generally, all relevant material will be covered before the HW goes out.

Please sign up for the class slack





https://columbiauniversity.zoom.us/j/91440875345?pwd=

12:00 PM George Cherian WXhJRjJQY2ZRekFPY1JPc2lLS1V5dz09

23

24

25

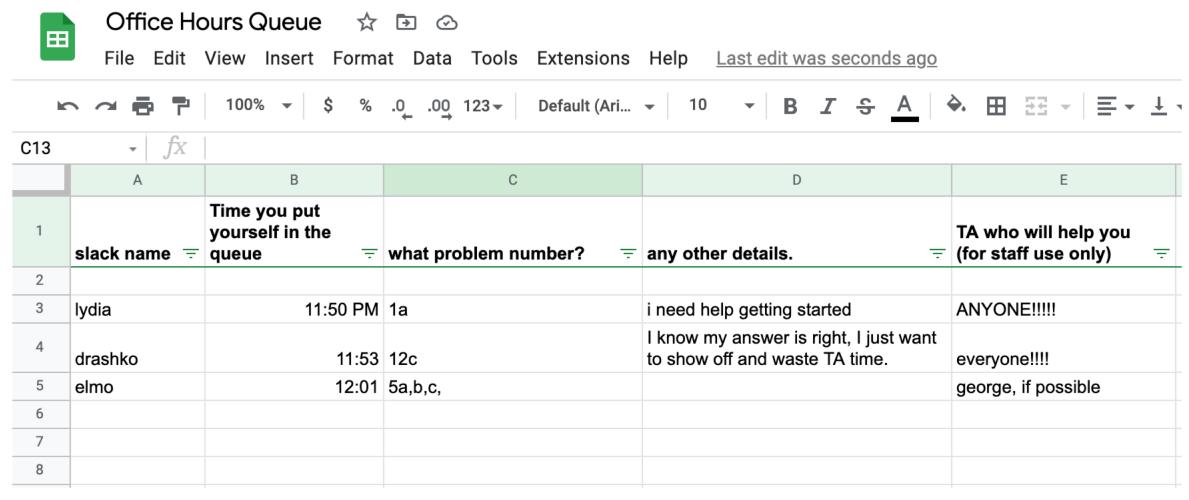
26

Thursdays

6:00 PM ?

7:00 PM ?

Put yourself in the queue, and a TA will reach out on slack.



User Interface Design

COMS 4170 · Spring 2022

Home

Grading

Syllabus

Ed Forum

Our Goals:

- 1. Understand users and build websites that suit the needs and abilities.
- 2. Design useable systems through iteration and feedback.

INSTRUCTOR

Prof. Lydia Chilton

OH: Monday 5:30-6:30, CEPSR 612

Please contact staff through Ed or Slack

TA OFFICE HOURS

The list of TA office hours is here

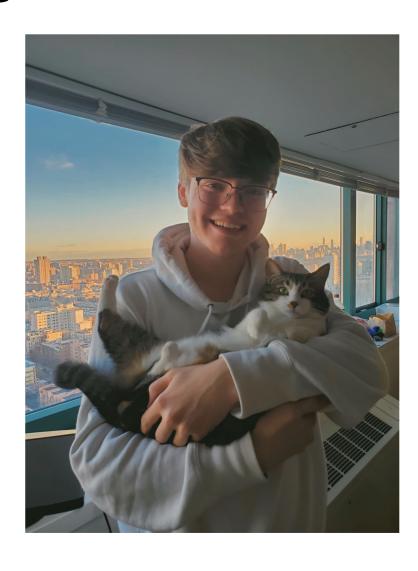
To attend office hours, hang out in the Slack channel "ohwaiting-room".

Add yourself to the OH queue here (and pinned to the ohwaiting-room slack channel. A TA will ping you on slack when they're ready for you. Feel free to chat with other students in the waiting room channel.

WEEKLY SCHEDULE

Monday, Wednesday 4:10–5:25pm IAB 417

Ollie



- Senior in CC majoring in CS and minoring in Psychology
- Used to study Physics but CS and UI is a lot more fun
- Took Prof Smith's class last semester and absolutely loved it!
- Currently watching Silicon Valley (rite of passage for all CS Majors) but I love watching Formula 1 more than anything (Lando is the goat).
- Excited to teach you all this semester!:)

Molly



- Senior at Barnard
- Computer Science and Political Science double major
- First time TA-ing for this class but have TA-ed for 1004 and 3134
- Took Prof. Smith's UI Design (Fall 2021)
- Might want to go to Med school but have not taken any prereqs, yikes
- Most interested in full-stack development, product management, and international relations (US-China specifically)
- Enjoy staying active and spending time outdoors in my free time (hiking, tennis, soccer, etc)

Aviva



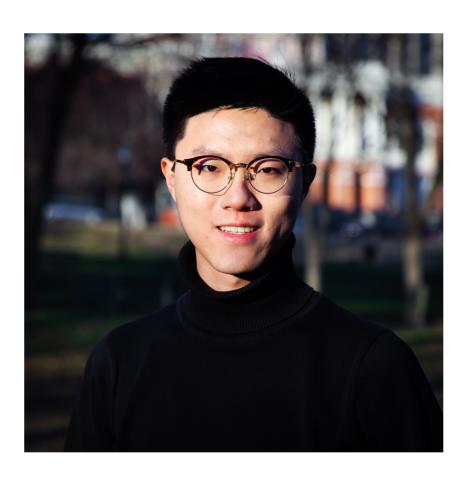
- Senior at Barnard
- Majoring in Computer Science, public health
- Love data visualization & using CS to convey information in an accessible and interesting way
- I play ultimate frisbee and love doing everything outside (hiking, biking, backpacking, running, swimming)

Pramothini



- First year MSCS student trying to balance between studies and maintaining my sanity:P
- Worked as a Software Engineer at Intuit for a couple years
- Took Lydia's Adv. Web Design Studio last Fall
- Love to dance, read books, and binge on shows (watching and passing judgements on trash TV is my weakness)
- My co-curricular interests include Design, Data, Product Management, and Entrepreneurship
- Feel free to hit me up for discussions on any topic ranging from UI Design to civilization on Mars!

William



- Senior combined plan student in SEAS majoring in CS. I previously attended Wesleyan University where I studied Econ.
- I learned how to build websites on Udemy and really enjoyed the process of designing my personal blog, thus began my journey into design.
- I took Lydia's Advanced Web Design Studio last semester where I built my project (an Alexa skill that can code for people) with Sandy (also a TA here!). It was super fun.
- I really like product management and can talk to you for hours about it until you are annoyed
- Down to talk about anything: classes, snowboarding, music, books, poetry, PM, what's up with life...

Emily



- Junior in SEAS
- Studying CS with a minor in Economics
- Took Professor Smith's UI Design (Fall 2021) - super excited to get more involved with HCI!
- Love all things outdoors (hiking, rock climbing, running, sailing)
- Originally from Michigan :)
- Can't wait to meet and work with everyone!

Visual Information Design

Prof. Lydia Chilton COMS 4170 24 January 2022



When you're at a restaurant, do you read a menu linearly, top to bottom, like you read a book?

MOBY DICK.

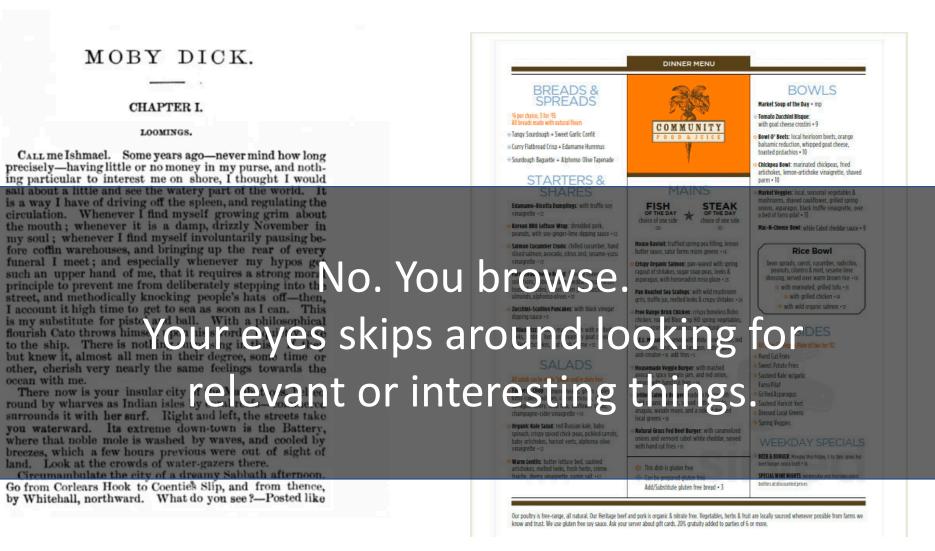
CHAPTER I.

LOOMINGS.

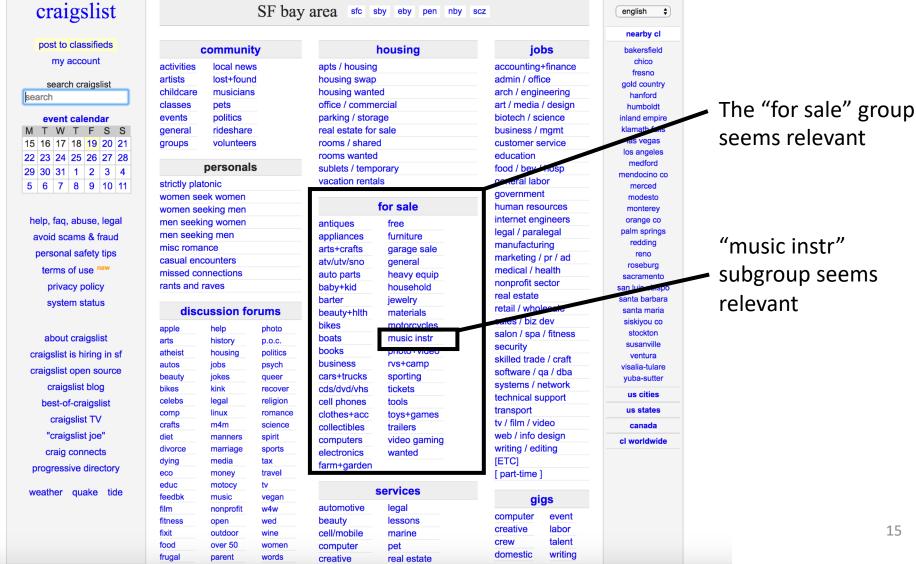
Call me Ishmael. Some years ago-never mind how long precisely-having little or no money in my purse, and nothing particular to interest me on shore, I thought I would sail about a little and see the watery part of the world. It is a way I have of driving off the spleen, and regulating the circulation. Whenever I find myself growing grim about the mouth; whenever it is a damp, drizzly November in my soul; whenever I find myself involuntarily pausing before coffin warehouses, and bringing up the rear of every funeral I meet; and especially whenever my hypos go such an upper hand of me, that it requires a strong more principle to prevent me from deliberately stepping into the strong more principle to prevent me from deliberately stepping into the strong more principle to prevent me from deliberately stepping into the strong more principle to prevent me from deliberately stepping into the strong more principle to prevent me from deliberately stepping into the strong more principle to prevent me from deliberately stepping into the strong more principle to prevent me from deliberately stepping into the strong more principle to prevent me from deliberately stepping into the strong more principle to prevent me from deliberately stepping into the strong more principle to prevent me from deliberately stepping into the strong more principle to prevent me from deliberately stepping into the strong more principle to prevent me from deliberately stepping into the strong me from t street, and methodically knocking people's hats off-then, I account it high time to get to sea as soon as I can. This other, cherish very nearly the same feelings towards the

surrounds it with her surf. Right and left, the streets take you waterward. Its extreme down-town is the Battery. where that noble mole is washed by waves, and cooled by breezes, which a few hours previous were out of sight of land. Look at the crowds of water-gazers there.

Circumambulate the city of a dreamy Sabbath afternoon Go from Corlears Hook to Coenties Slip, and from thence, by Whitehall, northward. What do you see?—Posted like



You want to find buy a guitar. Where would you look?

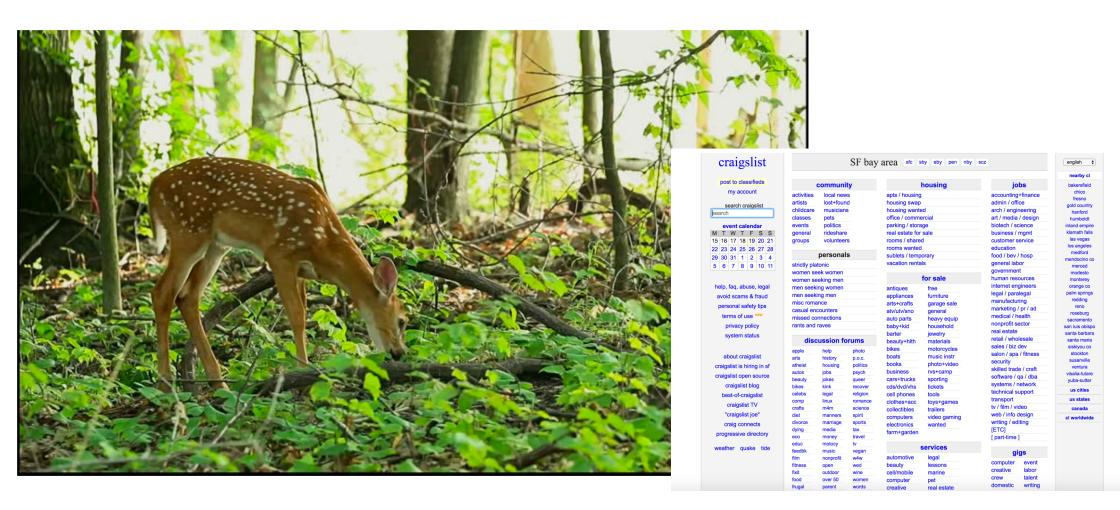


Information Hierarchy guides attention at a high level...



To help users find relevant or interesting things.

Information Foraging Theory says users do not read information (webpages) linear. Instead, they follow visual or textual clues to sense if they are on the right track.



The way you display information dictates what people will pay most attention to.

And you will read this last

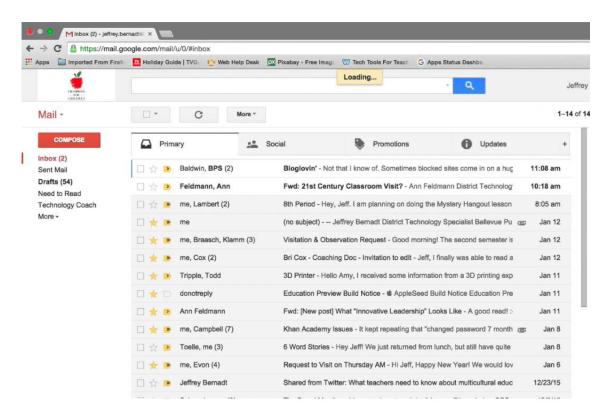
You will read this first

And then you will read this

Then this one

The main feature of many websites is to display information in a way that helps users accomplish a goal.

```
( 37) Loans with tiny points are here now
      Jul 01 R. Jackson
                          ( 123) Loans with tiny rates are here now
      Aug 05 Benjamin E. Mag ( 50) Long time no hear
       May 17 Krista Aaron (44) long time no see....
      Jun 03 Josiah House ( 35) Looking for a hot date tonight, tomorrow, or next week?
       Jul 03 Brigitte I. Hay ( 63) Looking for a N.ew H.Ome?
                          ( 58) Looking for you
       May 17 Joe Burns
       Jun 01 Save in a poor ( 145) Low Rate Consolidation Mortgage Loan
     + Jul 02 Igiel@virtualig ( 2) LowCost SoftWare OnCD
*-Mutt: Mail/junk/spam [Msgs:950 Old:142 10M]---(subject/date)--
ate: Mon, 17 May 2004 03:40:09 +0100
rom: Krista Aaron <Christinefeminine@highstream.com>
ubject: long time no see....
  Autoview using /usr/bin/elinks -force-html -dump ''/tmp/mutt.html'' -- ]
My name is Jen and I'm new to this dating thing. I've checked out your profile
you put up and it's interesting. =) I just want to get to know you a little
          better if you don't mind, come check my profile out at:
                         www.livejen.com/chat.html
also got a webcam so we can make it interesting, anyways hope you get back to
                         gxsnkxxgnduvyjwyceudcjobxs
                            zcozccrociesbehgbpow
                        rnxlfujnqpblipdkgwwyqofracsz
                        xmqawbxsb.jrppoibvlpfhqowldtp
                         bixhghvrxtqgfeoqcofzycb
                         hugzffaffulsklpzhrfxbtt
                          btpztlfotqmmoaiwlosqv
    627/950: Krista Aaron
  is not bound. Press '?' for help.
```

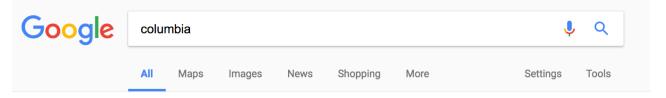


Let's look at examples!

1. What is the users main goal?

2. What information is displayed to help them achieve it?

Ignore the interaction and Focus on the information being displayed.



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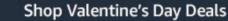
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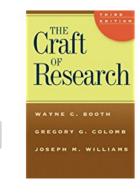
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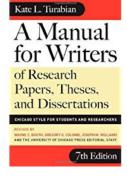
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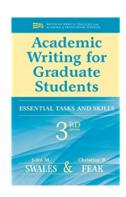
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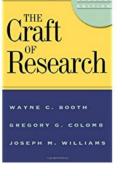


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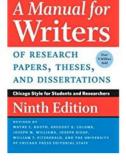
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How should we design information to suit the needs and abilities of users?

Undifferentiated Text

You are cordially invited to Robert and Alexandra's delectable after dinner party. Wine and nibbles will be served. When: February 20^{th} , 2019 at 9:30pm. Where: the pad. If you need directions, ping us. Kindly let us know if you will be attending by February 1^{st} .

Step 1. Group related information into chunks

You are cordially invited to Robert and Alexandra's delectable after dinner party. Wine and nibbles will be served. When: February 20th, 2018 at 9:30pm. Where: the pad. If you need directions, ping us. Kindly let us know if you will be attending by February 1st.

You are cordially invited to Robert and Alexandra's delectable after dinner party.

Wine and nibbles will be served.

When: February 20th, 2019 at 9:30pm.

Where: the pad. If you need directions, ping us.

You are cordially invited to Robert and Alexandra's delectable after dinner party.

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You are cordially invited to

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Wine and nibbles will be served.

When: February 20th, 2019 at 9:30pm.

Where: **the pad**. If you need directions, ping us.

Step 3. Consolidate into 3 groups.

You are cordially invited to

Robert and Alexandra's delectable after dinner party.

Wine and nibbles will be served.

When: February 20th, 2019 at 9:30pm.

Where: the pad. If you need directions, ping us.

Step 3. Consolidate into 3 groups.

You are cordially invited to

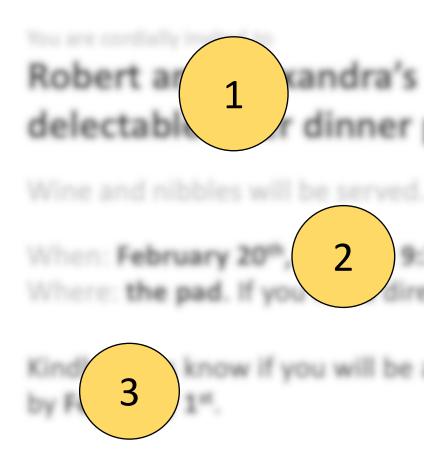
Robert and Alexandra's delectable after dinner party.

Wine and nibbles will be served.

When: February 20th, 2019 at 9:30pm.

Where: the pad. If you need directions, ping us.

Use the squint test to verify the Hierarchy of Information



Users can't focus on everything at once. They have a spotlight of attention.

1

A visual hierarchy of information allows designers to guide users' attention.

7 tools to *visually* convey importance

1. Conceptual Grouping:

You are condially invited to Robert

and Alexandra's delectable after

dinner party. Wine and nibbles w

be served. When: February 20th,

2018 at 9:30pm. Where: the pad. If

you need directions, ping us. Kind

let us know if you will be attending

by February 1".

A few high-level visual groups (3)

You are cordially invited to

February 1st.

Wine and nibbles will be served.

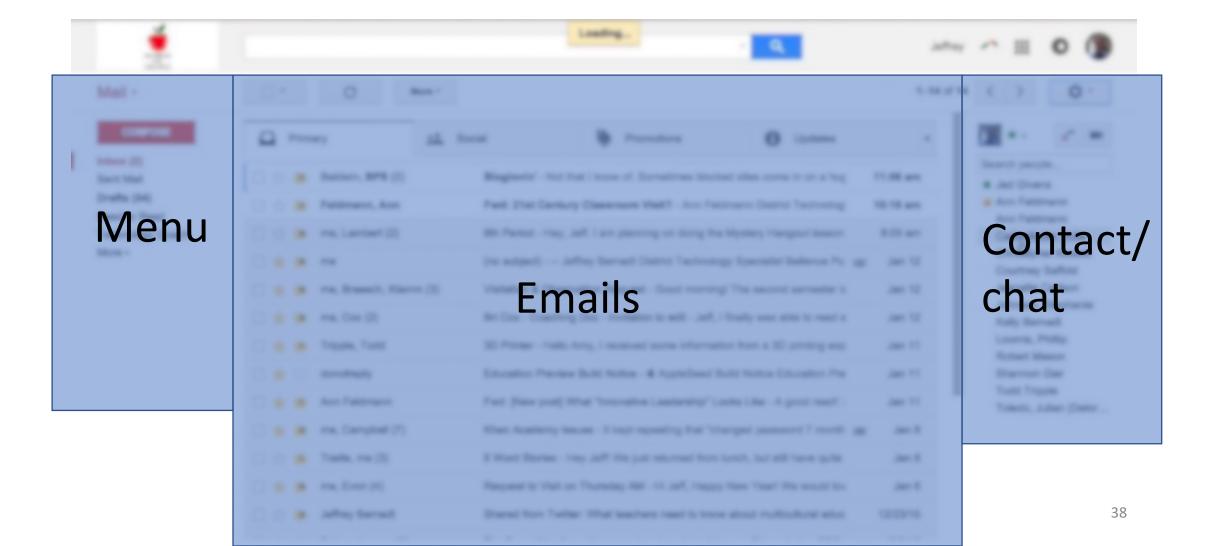
When: February 20th, 2019 at 9:30pm.

Robert and Alexandra's delectable after dinner

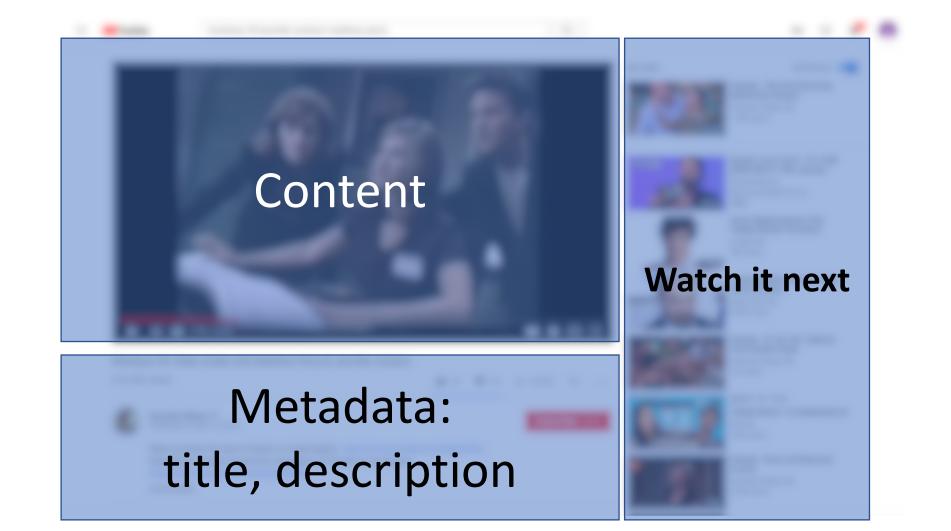
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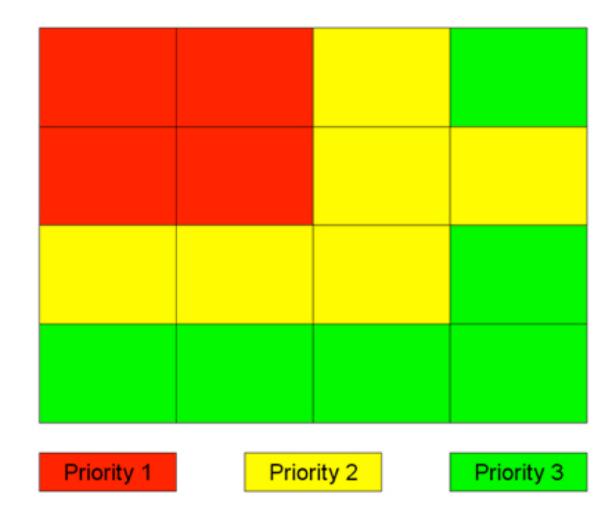
1. Conceptual Grouping: A few high-level visual groups



1. Conceptual Grouping: A few high-level visual groups



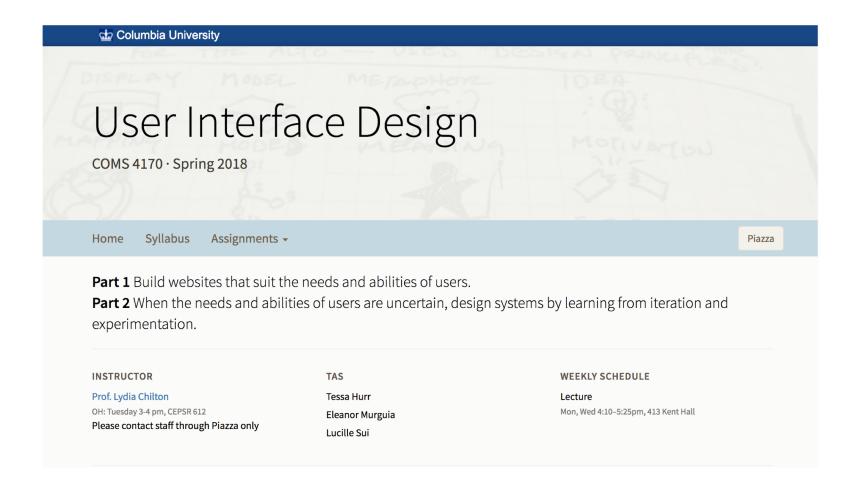
2. Location indicates Importance



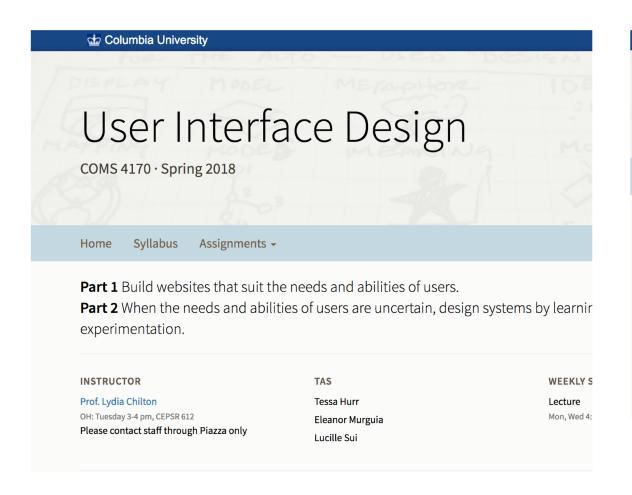
2. Location indicates importance

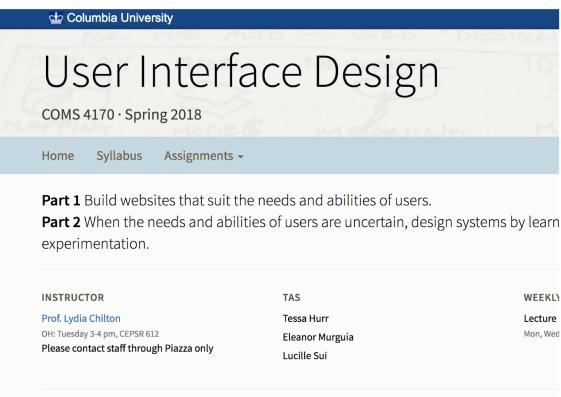


3. Whitespace indicates importance

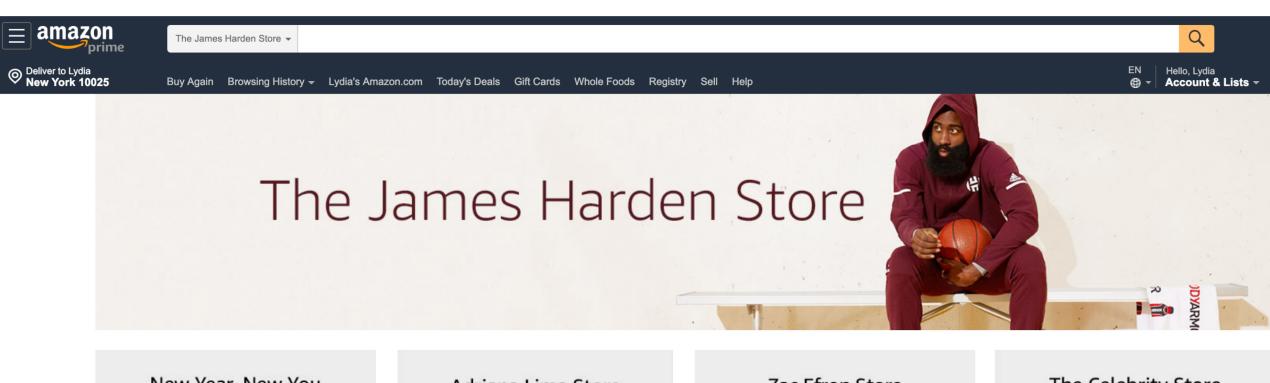


Whitespace vs. No Whitespace





3. Whitespace indicates importance



New Year, New You

Adriana Lima Store

Zac Efron Store

The Celebrity Store













3. Whitespace indicates importance





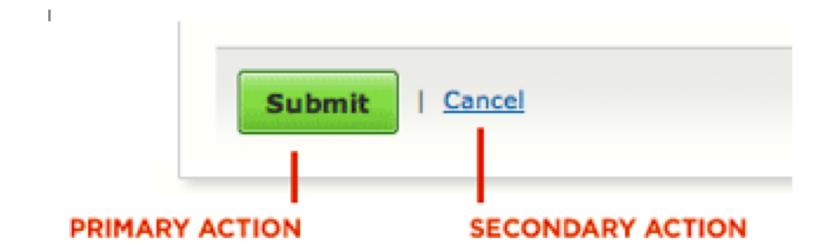
Random Art

Mona Lisa

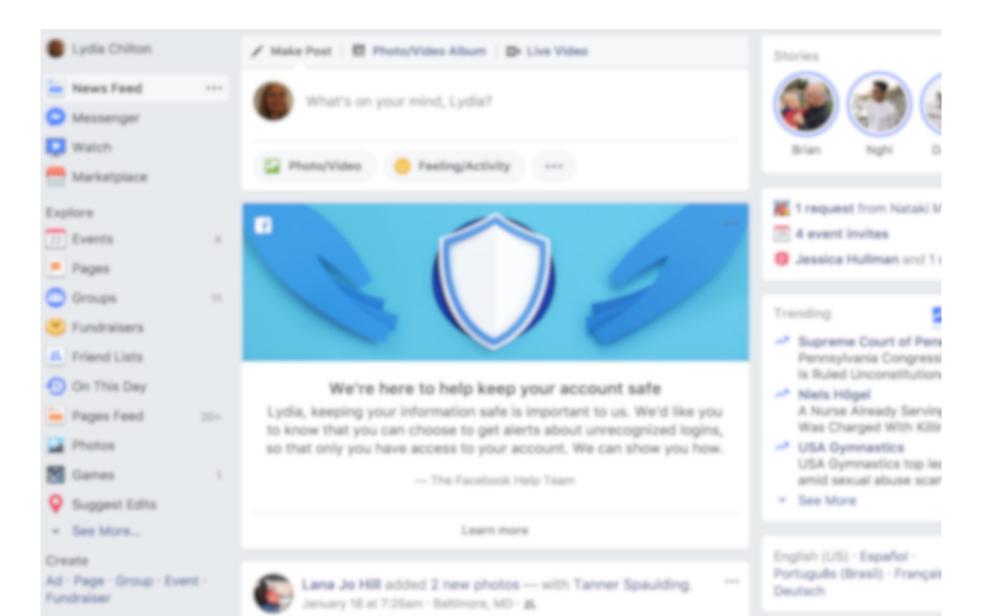
4. Size indicates importance



4. Size indicates importance



5. Images indicate importance



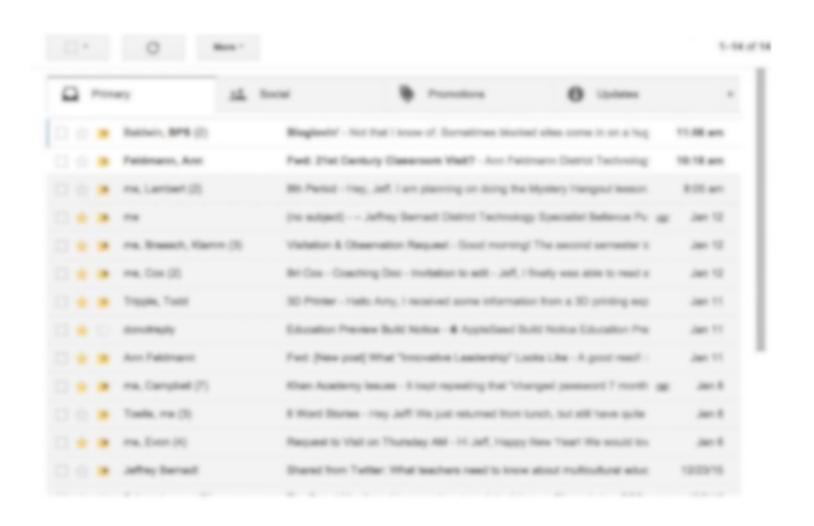
4. Images indicate importance



6. Contrast indicates importance

Robert and Alexandra's delectable after dinner party. When: February 20th, 2018 at 9:30pm. Where: the pad. If you need directions, ping us. Kindly let us know if you will be attending by February 1st.

6. Contrast indicates importance

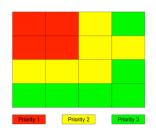


7. Color indicates importance



Seven tools for visually indicating importance







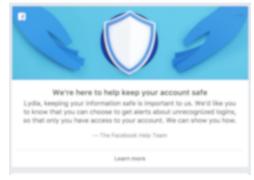


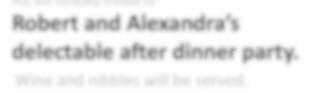
Conceptual grouping

Location

Whitespace

Size





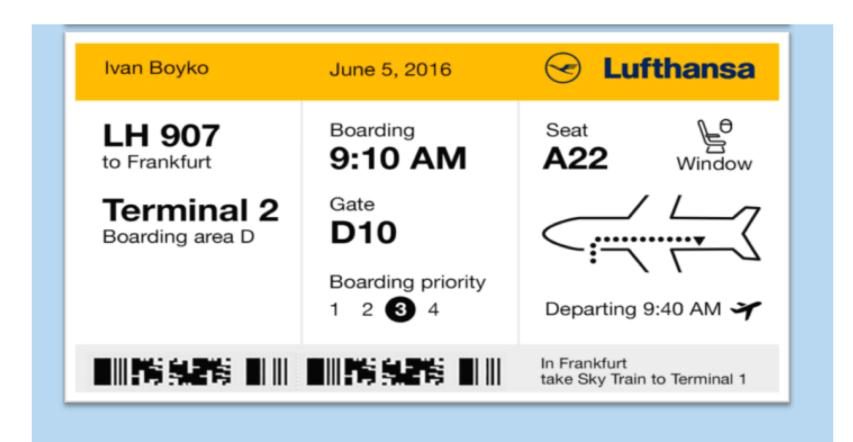


Images

Contrast

Color

Let's analyze the boarding pass.



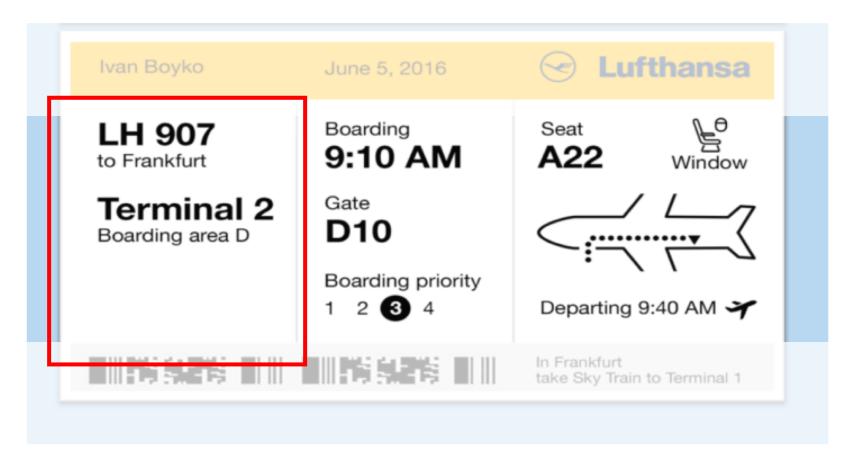
Who is the user?

Someone taking a flight to Frankfurt

What's the primary goal?

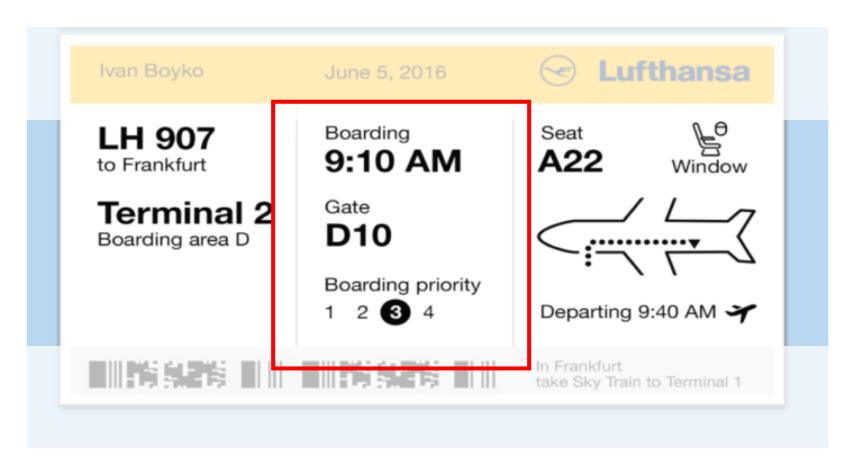
To get from home to their seat on the plane.

What's the concept behind group 1?



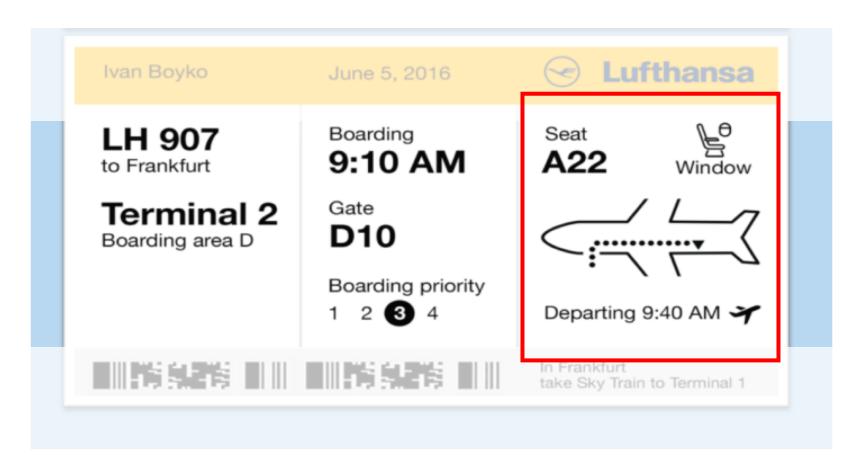
"get-to-the-terminal"

What's the concept behind group 2?



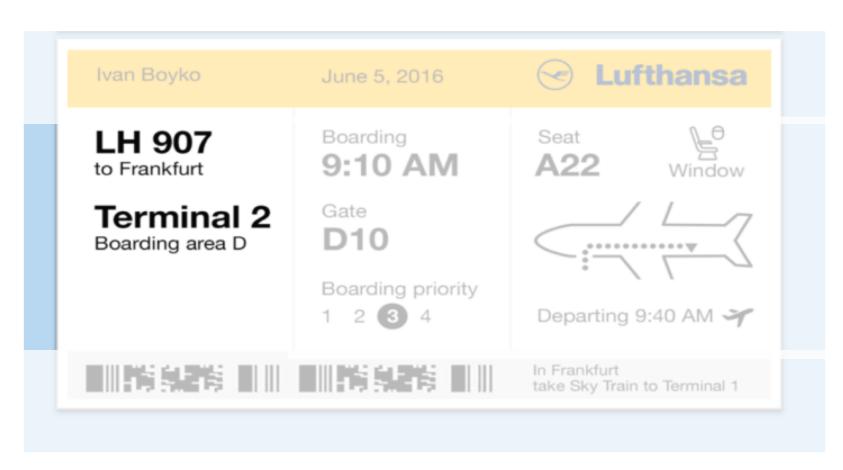
"Get on board"

What's the concept behind group 3?



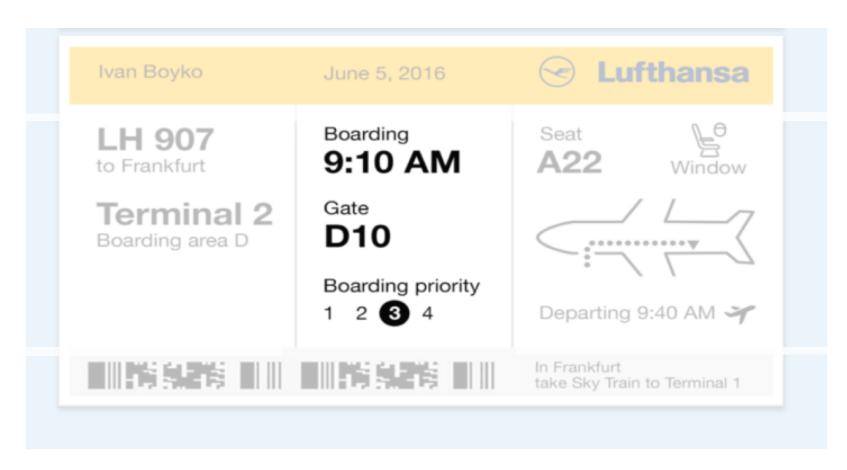
"Find your seat"

What tools does the the "get-to-the-terminal" group use?



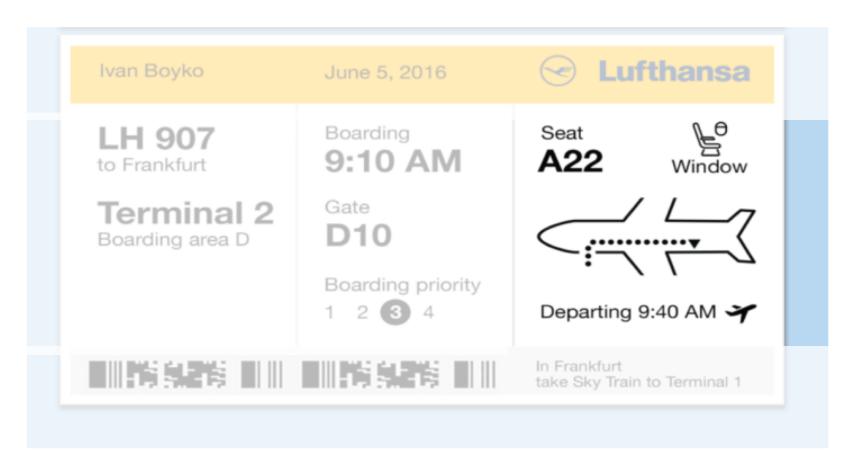
- Whitespace
- Size
- Contrast
- Order

What tools does the the "get on board" group use?



- Whitespace
- Size
- Contrast

What tools does the the "find your seat" group use?

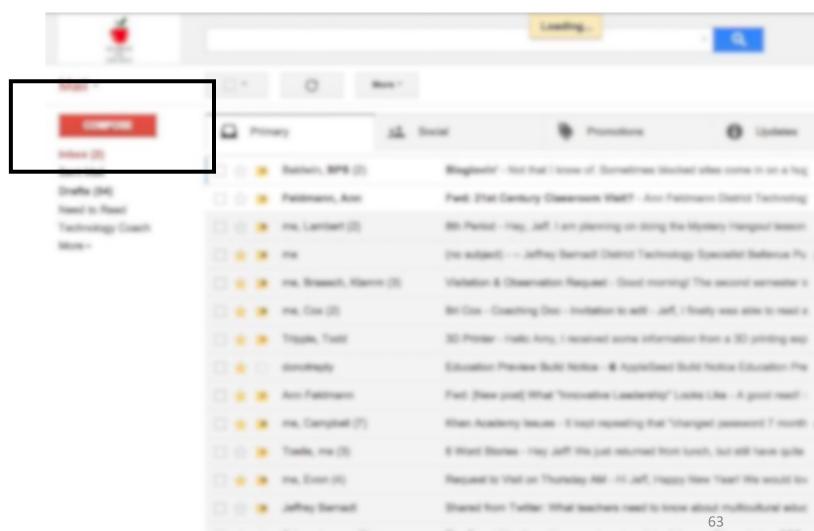


- Images
- Size
- Contrast

Using the tools together

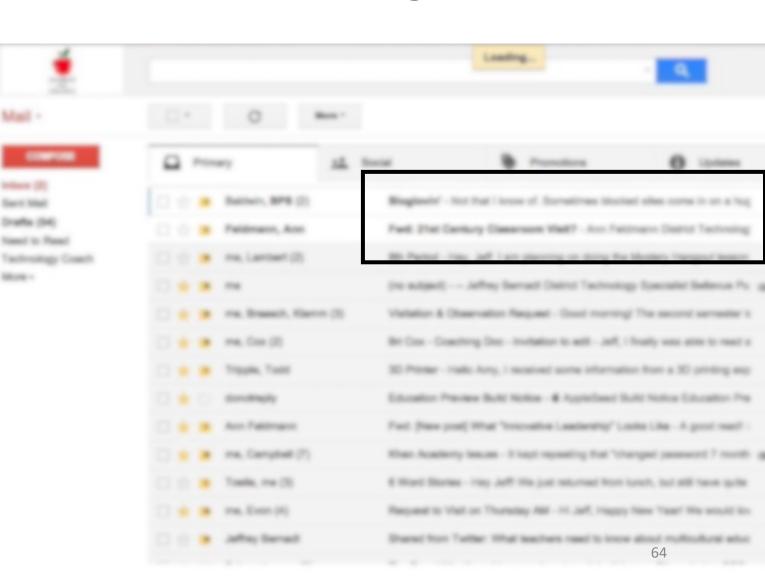
What tools does the compose button use?

Conceptual Grouped with "menu"
 Position? Top and left
 Whitespace? Top and right
 Size? Big
 Images? No
 Contrast? Dark box
 Color? Red

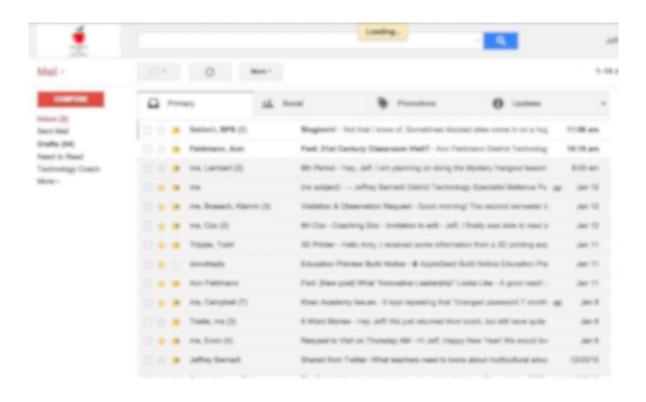


What tools does the unread message use?

Conceptual Groupings?
 Position? Typically at the top
 Whitespace? left
 Size? No
 Images? No
 Contrast? Bold, white background
 Color? No



What tool do good designers use least?





Designers use color sparingly

What tool do novice designers abuse? COLOR



Use color last.

You are cordially invited to Robert and Alexandra's delectable after dinner party. Wine and nibbles will be served. When: February 20th, 2019 at 9:30pm. Where: the pad. If you need directions, ping us. Kindly let us know if you will be attending by February 1st.

You are cordially invited to

Robert and Alexandra's delectable after dinner party.

Wine and nibbles will be served.

When: February 20th, 2019 at 9:30pm.

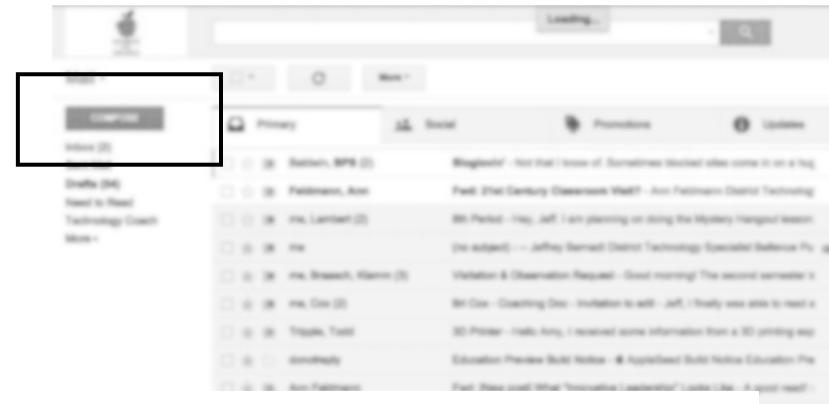
Where: **the pad**. If you need directions, ping us.

Kindly let us know if you will be attending by **February 1**st.

To establish an nuanced information hierarchy, use whitespace, size and contrast.

You don't you need color.

Conceptual Grouped Groupings? with "menu" Top and left Position? Whitespace? Top and right Size? Big Images? No Contrast? Dark box Color? No



You can use multiple other tools together to make something salient.

If you are tempted to use color, use whitespace, size and contrast instead.

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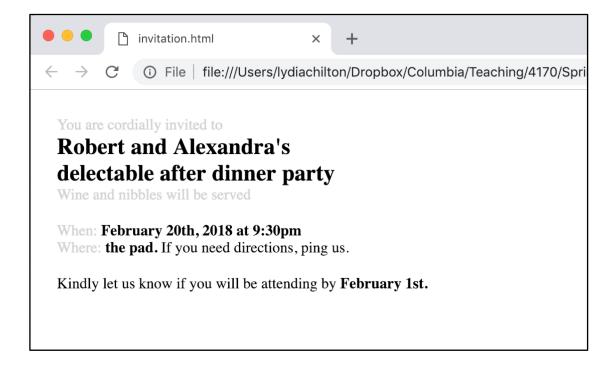
Where: **the pad**. If you need directions, ping us.

Kindly let us know if you will be attending by **February 1**st.

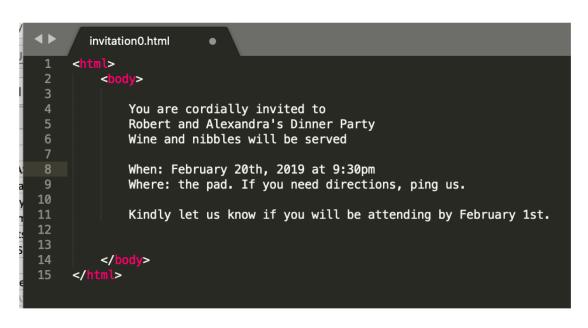
Implementing Information Design

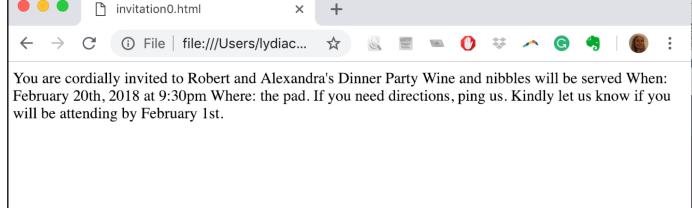
In HTML and CSS

HTML Warm-up: Remake the invitation

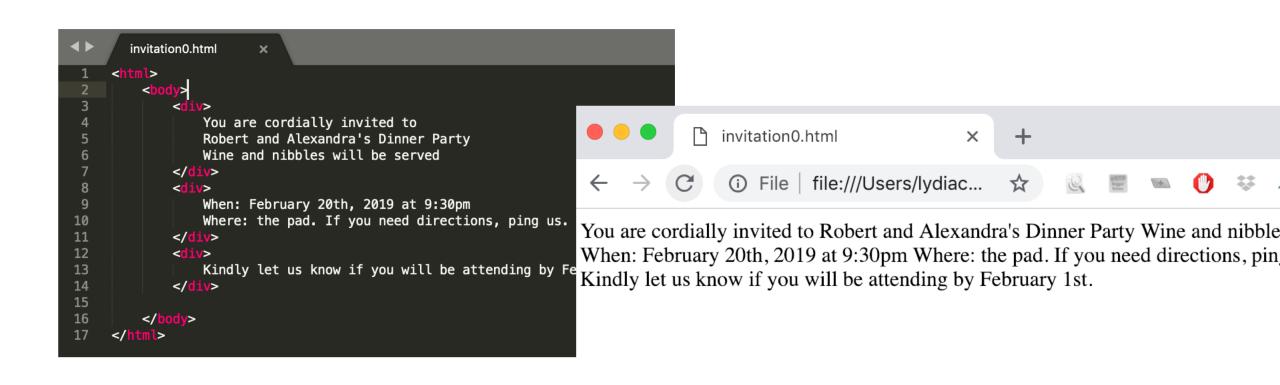


Step 1. Just run it.

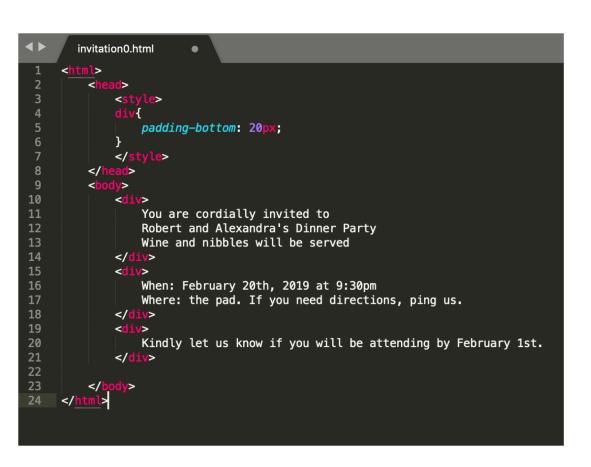


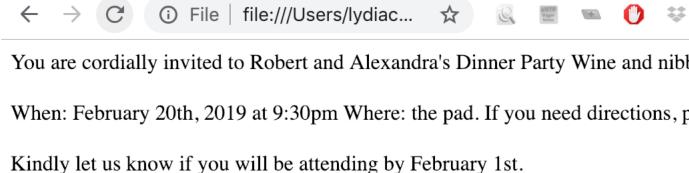


Step 2. Add <div> elements to create groups



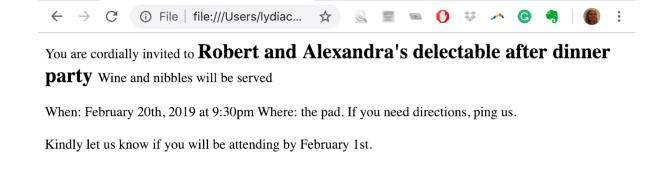
Step 3. Add style header, and padding to divs



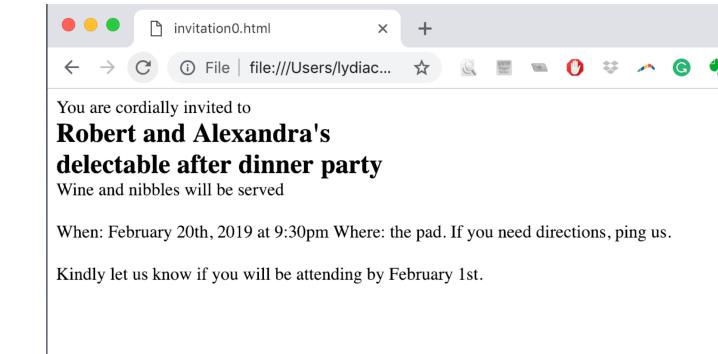


Step 4. Add spans and more styles by class

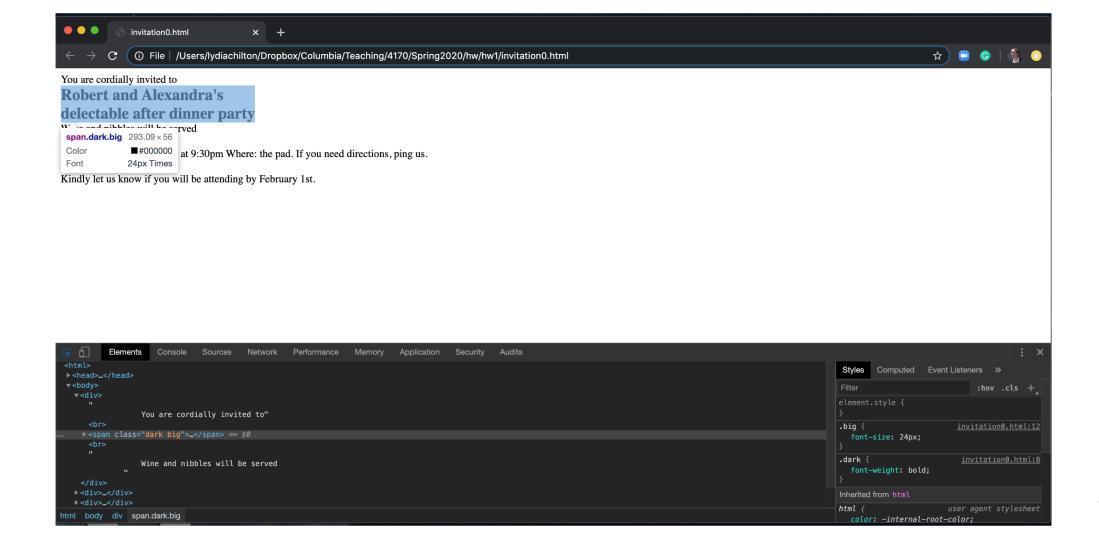
```
4
        invitation0.html
                          ×
     <html>
                  padding-bottom: 20px;
 6
              .dark{
 8
 9
                  font-weight: bold;
10
11
12
              .big{
13
                  font-size: 24px;
14
15
16
              </style>
17
18
19
                  You are cordially invited to
20
                  <span class="dark big">
21
                       Robert and Alexandra's
22
23
                       delectable after dinner party
24
                   .
Wine and nibbles will be served
25
26
              </div>
```



Step 5. Add
 elements to break lines.

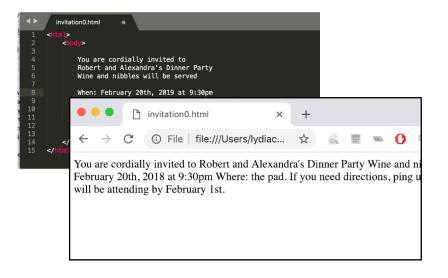


Demo



If you are new to HTML and CSS....

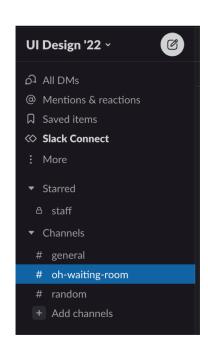
Try it



Google it



Ask the staff



Information Foraging Theory

When you're at a restaurant, do you read a menu linearly, top to bottom, like you read a book?

MOBY DICK.

CHAPTER I.

LOOMINGS.

Call me Ishmael. Some years ago-never mind how long precisely-having little or no money in my purse, and nothing particular to interest me on shore, I thought I would sail about a little and see the watery part of the world. It is a way I have of driving off the spleen, and regulating the circulation. Whenever I find myself growing grim about the mouth; whenever it is a damp, drizzly November in my soul; whenever I find myself involuntarily pausing before coffin warehouses, and bringing up the rear of every funeral I meet; and especially whenever my hypos get such an upper hand of me, that it requires a strong moral principle to prevent me from deliberately stepping into the street, and methodically knocking people's hats off—ther I account it high time to get to sea as soon as I can. This is my substitute for pistol and ball. With a philosophical flourish Cato throws himself upon his sword; I quietly take

Farmstead Cheese Board: Saxelby cheese

Tangy Sourdough + Sweet Garlic Confit

#: Curry Flatbread Crisp + Edamame Hummus

#Sourdough Baquette + Alphonso Olive Tapenade

STARTERS &

Market Soup of the Day . mp

Tomato Zucchini Bisque:

toasted pistachios • 10

with goat cheese crostini • 9 Rowt O' Reets: local heirloom heets, orange balsamic reduction, whipped goat cheese,

Chickpea Bowl: marinated chickpeas, fried artichokes, lemon-artichoke vinaigrette, shaved

: Korean BBQ Lettuce Wrap: shredded pork.

Mac-N-Cheese Bowl: white Cabot cheddar sauce . 9

Rice Bowl

Your eyes skips around looking for relevant or interesting things.

There now is your insular city of the Manhattoes, belted round by wharves as Indian isles by coral reefs-commerce surrounds it with her surf. Right and left, the streets take you waterward. Its extreme down-town is the Battery, where that noble mole is washed by waves, and cooled by breezes, which a few hours previous were out of sight of land. Look at the crowds of water-gazers there.

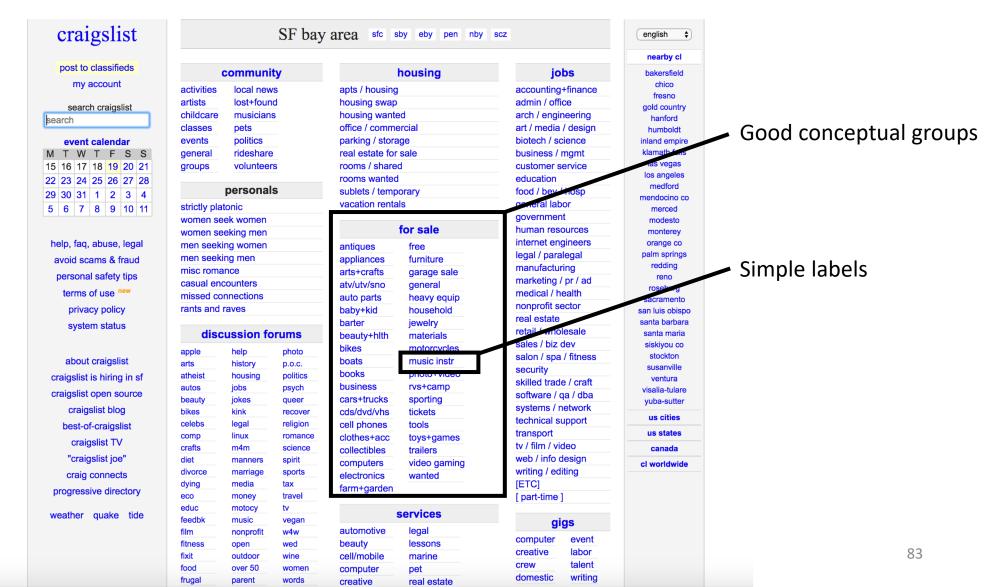
Circumambulate the city of a dreamy Sabbath afternoon Go from Corlears Hook to Coentie's Slip, and from thence, by Whitehall, northward. What do you see?-Posted like Organic Kale Salad: red Russian kale, baby

Natural Grass Fed Beef Burger: with caramelize

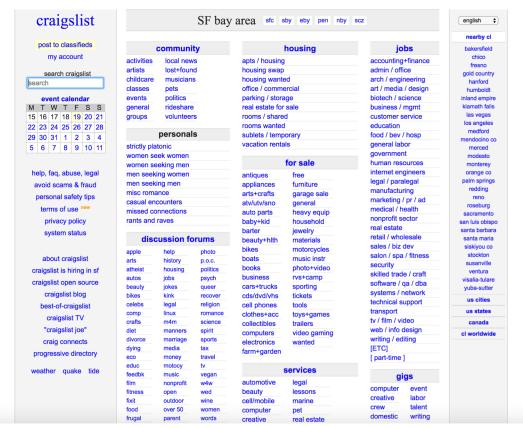
Add/Substitute gluten free bread • 3

Our noultry is free-zance all natural. Our Heritage heef and nork is normaly & nitrate free Venetables, herbs & fruit are locally sourced whenever noteible from farms we know and trust. We use gluten free soy sauce. Ask your server about gift cards, 20% gratuity added to parties of 6 or more.

You want to find buy a used guitar. Where would you look?

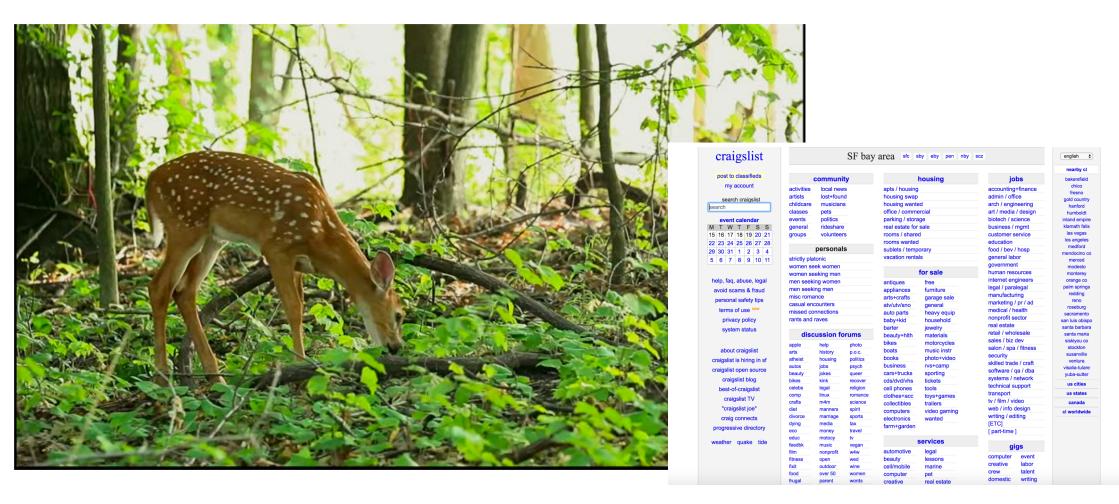


Information Hierarchy guides attention at a high level...

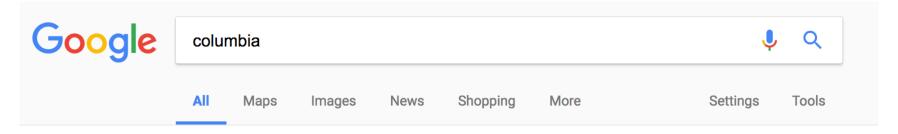


To help users find relevant or interesting things.

Information Foraging Theory says users follow visual or textual clues to sense if they are on the right track.



Caveat 1: Use simple text labels BUT some data don't need labels.



About 647,000,000 results (0.66 seconds)

Shop Columbia® Online | Outdoor Apparel & Products

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Columbia Sportswear: Outdoor Clothing, Outerwear & Accessories

https://www.columbia.com/ ▼

Shop direct from **Columbia** Sportswear. Our Outerwear is Tested Tough in the Pacific Northwest. Shop for Jackets, Pants, Shirts, Shoes & more.

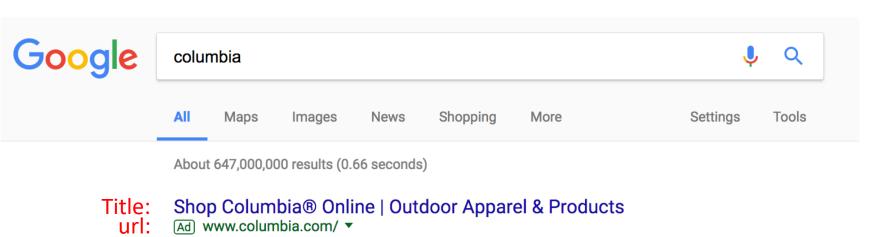
Men · Women · Insulated & Down · Jackets

Columbia University in the City of New York

https://www.columbia.edu/ ▼

Schedule a tour of the Morningside campus. Five graduates in cap and gown celebrate facing the camera. Commencement. University-wide commencement information. Annette Lopes smiling at camera. Employment. Careers at **Columbia**. College walk in front of Low Library. **Columbia** Data. A statistical snapshot of the ...

Caveat 1: Use simple text labels BUT some data don't need labels.



Save at the Official Columbia Site. Free Shipping & More for Members!

Types: Jackets, Vests, Shirts, Pants, Shorts, Footwear, Accessories, Backpacks summary:

35% Off Select Styles · Columbia Apparel & Gear · Waterproof Puffy Jackets · Columbia Gift Cards

Columbia Sportswear: Outdoor Clothing, Outerwear & Accessories Title:

https://www.columbia.com/ ▼

Shop direct from Columbia Sportswear. Our Outerwear is Tested Tough in the Pacific Northwest. Shop

for Jackets, Pants, Shirts, Shoes & more.

summary: Men · Women · Insulated & Down · Jackets

> Columbia University in the City of New York Title:

https://www.columbia.edu/ ▼ url:

> Schedule a tour of the Morningside campus. Five graduates in cap and gown celebrate facing the camera. Commencement. University-wide commencement information. Annette Lopes smiling at camera. Employment. Careers at Columbia. College walk in front of Low Library. Columbia Data. A

statistical snapshot of the ...

summary:

Caveat 2: Use Familiar Icons



BUT....

Don't use unfamiliar icons



























But not unfamiliar icons

My

Portfolio



But not unfamiliar icons



























But not unfamiliar icons















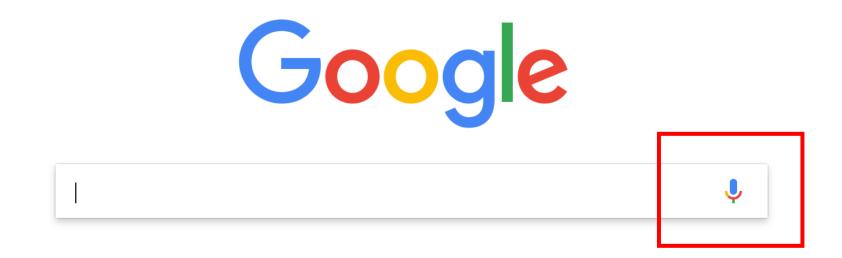








Icons are useful when users don't know the word for the object.



Aesthetics Matters to finding information



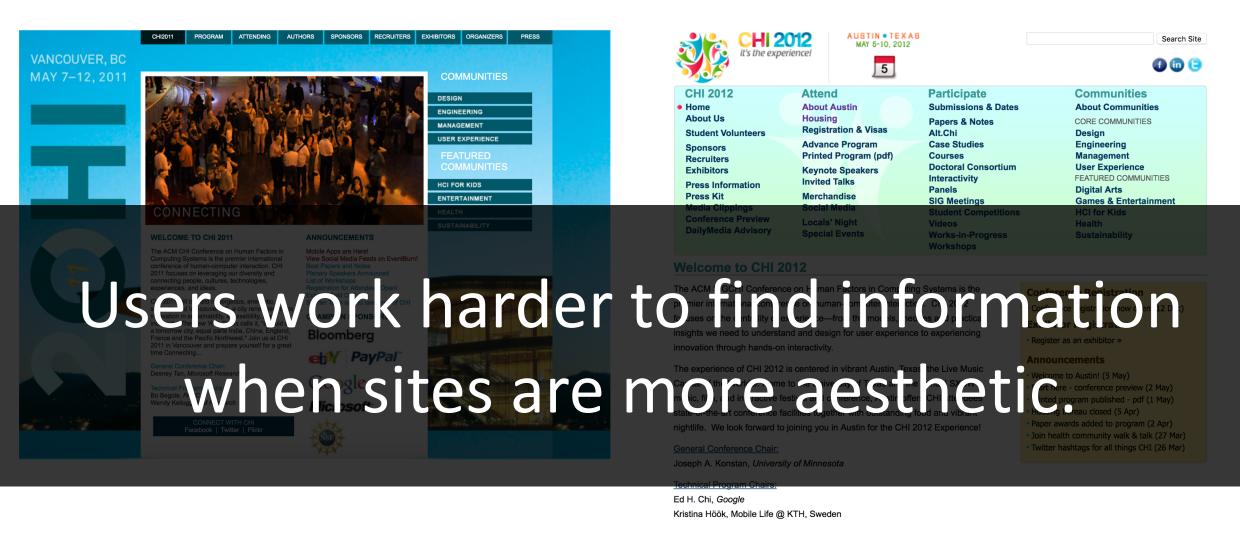
CHI 2012 Housing

The housing bureau is now closed. If you need to arrange your own accomodation near the conference, the address of the convention center is: 500 East Cesar Chavez Street Austin, TX 78701.

CHI 2012 Housing is open! Make your housing reservation.

Location

Aesthetics Matters to finding information

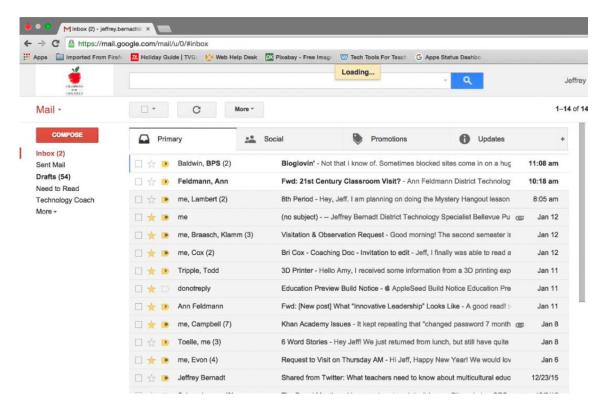


Champion Sponsors

Summary

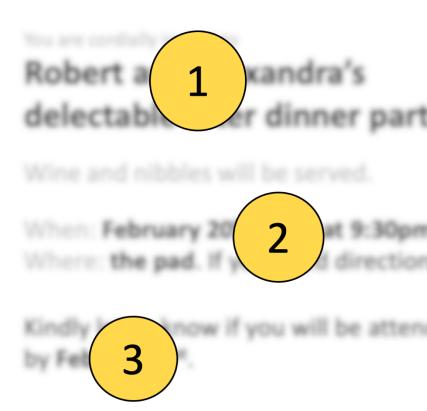
The main feature of many websites is to display information in a way that helps users accomplish a goal.

```
( 37) Loans with tiny points are here now
      Jul 01 R. Jackson
                          ( 123) Loans with tiny rates are here now
      Aug 05 Benjamin E. Mag ( 50) Long time no hear
       May 17 Krista Aaron (44) long time no see....
      Jun 03 Josiah House ( 35) Looking for a hot date tonight, tomorrow, or next week?
       Jul 03 Brigitte I. Hay ( 63) Looking for a N.ew H.Ome?
                          ( 58) Looking for you
       May 17 Joe Burns
       Jun 01 Save in a poor ( 145) Low Rate Consolidation Mortgage Loan
     + Jul 02 Igiel@virtualig ( 2) LowCost SoftWare OnCD
*-Mutt: Mail/junk/spam [Msgs:950 Old:142 10M]---(subject/date)--
ate: Mon, 17 May 2004 03:40:09 +0100
rom: Krista Aaron <Christinefeminine@highstream.com>
ubject: long time no see....
  Autoview using /usr/bin/elinks -force-html -dump ''/tmp/mutt.html'' -- ]
My name is Jen and I'm new to this dating thing. I've checked out your profile
you put up and it's interesting. =) I just want to get to know you a little
          better if you don't mind, come check my profile out at:
                         www.livejen.com/chat.html
also got a webcam so we can make it interesting, anyways hope you get back to
                         gxsnkxxgnduvyjwyceudcjobxs
                            zcozccrociesbehgbpow
                        rnxlfujnqpblipdkgwwyqofracsz
                        xmqawbxsb.jrppoibvlpfhqowldtp
                         bixhghvrxtqgfeoqcofzycb
                         hugzffaffulsklpzhrfxbtt
                          btpztlfotqmmoaiwlosqv
    627/950: Krista Aaron
  is not bound. Press '?' for help.
```

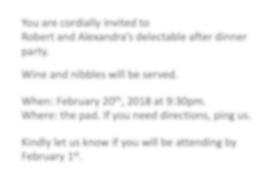


Users have a spotlight of attention.

Designers use a visual information hierarchy to guide users' attention



Seven tools for visually indicating importance







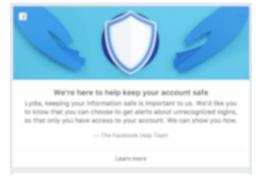


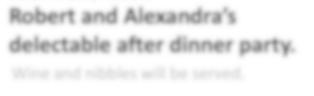
Conceptual grouping

Location

Whitespace

Size







Images

Contrast

Color

Use multiple tools. Use color last. Use size, whitespace and contrast instead.

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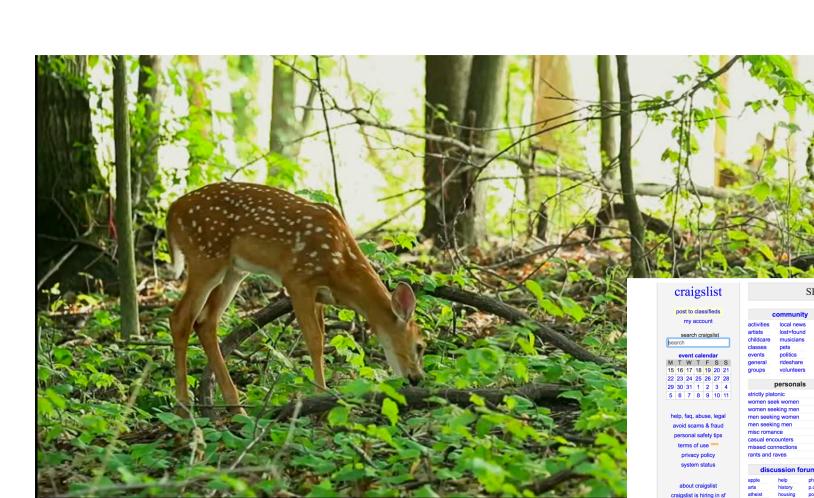
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Information Foraging Theory says users follow visual or textual clues to to sense if they are on the right track.



- Conceptual groupings
- Simple text labels
- Familiar Icons
- Aesthetic Design

Homework 1 due Tuesday @ 11:59pm

(but accepted until Wednesday 11:59pm)

Homework 1:

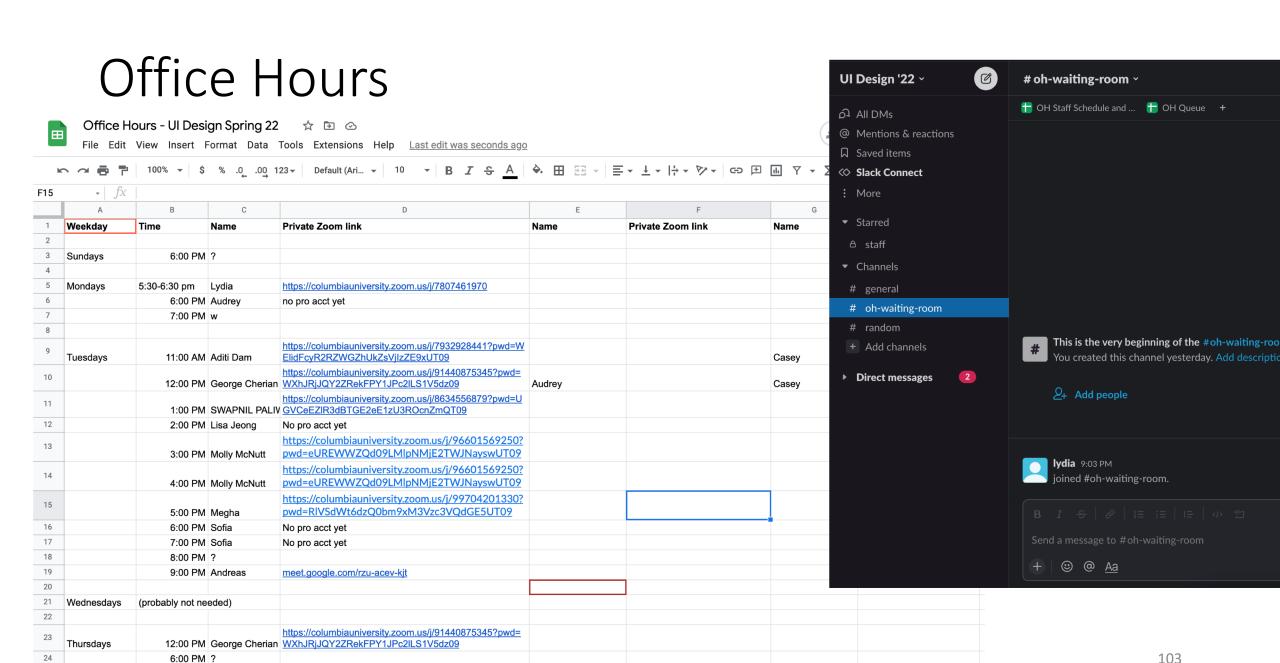
Usability Heuristics and Information Design

Warm up: due Friday 1/21 @ 11:59pm on Courseworks

Main: due Tuesday 1/25 @ 11:59pm on Courseworks.

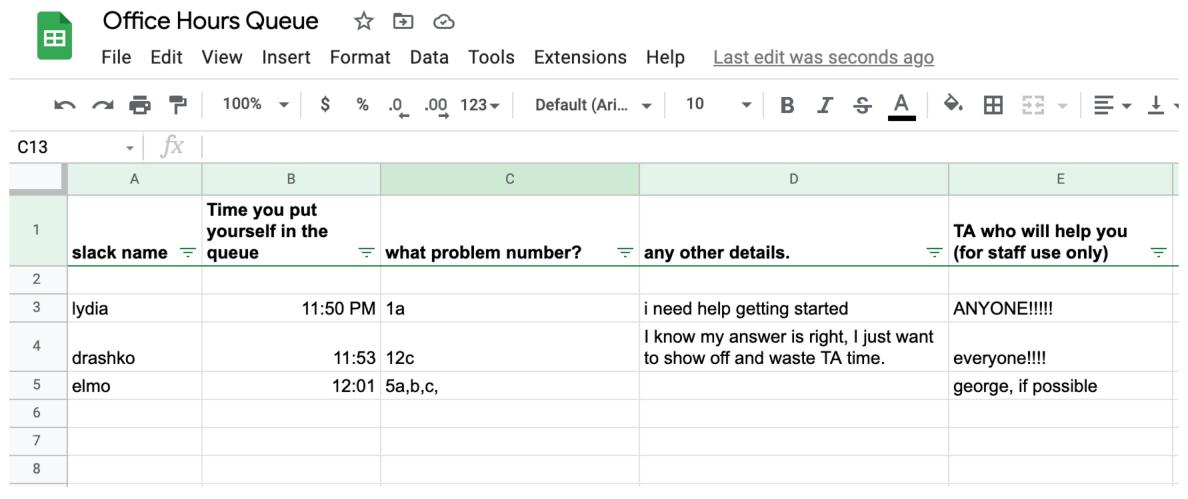
We will accept the Main assignment without late penalty until Wednesday 1/26 @ 11:59pm

- In this class, Googling for programming syntax is good.
 - We expect it.
 - If you get an error, the first question we will ask is "Did you Google it?"



7:00 PM ?

Put yourself in the queue, and a TA will reach out on slack.



User Interface Design

COMS 4170 · Spring 2022

Home

Grading

Syllabus

Ed Forum

Our Goals:

- 1. Understand users and build websites that suit the needs and abilities.
- 2. Design useable systems through iteration and feedback.

INSTRUCTOR

Prof. Lydia Chilton

OH: Monday 5:30-6:30, CEPSR 612

Please contact staff through Ed or Slack

TA OFFICE HOURS

The list of TA office hours is here

To attend office hours, hang out in the Slack channel "ohwaiting-room".

Add yourself to the OH queue here (and pinned to the ohwaiting-room slack channel. A TA will ping you on slack when they're ready for you. Feel free to chat with other students in the waiting room channel.

WEEKLY SCHEDULE

Monday, Wednesday 4:10–5:25pm IAB 417

Homework

Homework 1: Usability Heuristics and Information Design

Warm up: due Friday 1/21 @ 11:59pm on Courseworks

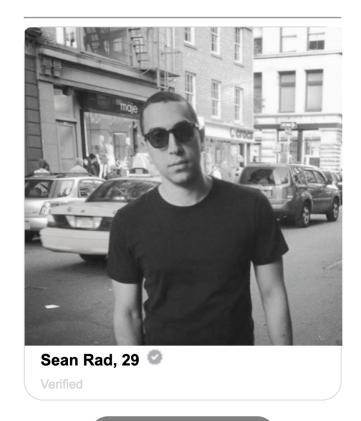
Main: due Tuesday 1/25 @ 11:59pm on Courseworks.

We will accept the Main assignment without late penalty until Wednesday 1/26 @ 11:59pm

My Implementation of the Tinder Problem

i File // Users/lydiachilton/Dropbox/Columbia/Teaching/4170/Spring2022/hw/hw1/tinder/tinder.html







₾☆