Visual Information Design

No screens

Prof. Lydia Chilton
COMS 4170
22 January 2018
Goal 1

Build websites that suit the needs and abilities of users

The main goal of many websites is to display information users need.
What information do these sites display?
User Interface Design
COMS 4170 · Spring 2018

**Part 1** Build websites that suit the needs and abilities of users.
**Part 2** When the needs and abilities of users are uncertain, design systems by learning from iteration and experimentation.

**INSTRUCTOR**
Prof. Lydia Chilton
OH: Tuesday 3-4 pm, CEPSR 612
Please contact staff through Piazza only

**TAS**
Tessa Hurr
Eleanor Murguia
Lucille Sui

**WEEKLY SCHEDULE**

<table>
<thead>
<tr>
<th>WEEK</th>
<th>MONDAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>JANUARY 15</td>
</tr>
<tr>
<td></td>
<td>No class</td>
</tr>
</tbody>
</table>

| 2    | JANUARY 22 |
|      |            |

<table>
<thead>
<tr>
<th>WEDNESDAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>JANUARY 17</td>
</tr>
<tr>
<td>Introduction</td>
</tr>
<tr>
<td>Nielsen's 10 Usability Heuristics slides</td>
</tr>
<tr>
<td>Assignment 1 out</td>
</tr>
</tbody>
</table>

| JANUARY 26 |
|           |
| DUE DATE  |


Windows 95 Video Guide with Matthew Perry & Jennifer Aniston

216,782 views

Favorite Videos
Published on Dec 12, 2016

Watch all about the show Friends in a single playlist - https://www.youtube.com/playlist?list=
Subscribe and watch scenes from all seasons of Friends on my channel - https://www.youtube.com/channel/UCABV...
PictureCorrect Photography Tips

What is your Photography-Related New Year's Resolution??
13 minutes ago · Like · Comment

Adel Gomaa and Richard Schneider like this.

Sadi Molloy: get my business looking more professional: car, signage; tick, make up portrait folders: tick, stickers & cd covers: still to do... its getting there though.
11 minutes ago · Flag

PictureCorrect Photography Tips: My resolution for 2011 is to capture more landscape photos outside the U.S. and add more countries to my portfolio. What is yours?
10 minutes ago · Flag

Richard

James Donnelly: Larger concerts to cover and improve my portrait editing style/skill
10 minutes ago · Flag

Jose Antonio Rubido: To push my photography forward full throttle
9 minutes ago · Flag

Deacon Jonathan Jerome Johnson: To learn more and enhance the quality of my shots
5 minutes ago · Flag

Latu Petai Veimala-Hofoka: learnt learnt learnt
4 minutes ago · Flag

Tina Taylor Hammer: Get my new business moving and have it pay for that lens and other equipment that I want (and a little for me too).
2 minutes ago · Flag

Stefanie Bakewell: get a website up so that I can get clients full steam ahead
about a minute ago · Flag
<table>
<thead>
<tr>
<th>Primary</th>
<th>Social</th>
<th>Promotions</th>
<th>Updates</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baldwin, BPS (2)</td>
<td>Bloglovin' - Not that I know of. Sometimes blocked sites come in on a hugh</td>
<td></td>
<td></td>
</tr>
<tr>
<td>me, Lambert (2)</td>
<td>8th Period - Hey, Jeff. I am planning on doing the Mystery Hangout lesson</td>
<td></td>
<td></td>
</tr>
<tr>
<td>me</td>
<td>(no subject) -- Jeffrey Bernadt District Technology Specialist Bellevue Pu</td>
<td></td>
<td></td>
</tr>
<tr>
<td>me, Braasch, Klam</td>
<td>Visitation &amp; Observation Request - Good morning! The second semester is</td>
<td></td>
<td></td>
</tr>
<tr>
<td>me, Cox (2)</td>
<td>Bri Cox - Coaching Doc - Invitation to edit - Jeff, I finally was able to read a</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Trippe, Todd</td>
<td>3D Printer - Hello Amy, I received some information from a 3D printing exp</td>
<td></td>
<td></td>
</tr>
<tr>
<td>donotreply</td>
<td>Education Preview Build Notice - AppleSeed Build Notice Education Pre</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ann Feldmann</td>
<td>Fwd: [New post] What &quot;Innovative Leadership&quot; Looks Like - A good read!</td>
<td></td>
<td></td>
</tr>
<tr>
<td>me, Campbell (7)</td>
<td>Khan Academy Issues - It kept repeating that &quot;changed password 7 month</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toelle, me (3)</td>
<td>6 Word Stories - Hey Jeff! We just returned from lunch, but still have quite</td>
<td></td>
<td></td>
</tr>
<tr>
<td>me, Evon (4)</td>
<td>Request to Visit on Thursday AM - Hi Jeff, Happy New Year! We would lov</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jeffrey Bernadt</td>
<td>Shared from Twitter: What teachers need to know about multicultural educ</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

11:08 am
10:18 am
8:05 am
11:12
11:12
11:12
11:11
11:11
11:11
11:12
11:12
12/23/15
Trump in Shutdown Talks With Schumer

White House Invites Democratic Leader to Negotiate a Deal

By THE NEW YORK TIMES
49 minutes ago

• The government will shut down at 12:01 a.m. Saturday if lawmakers fail to get an agreement on some kind of spending bill.

• With Democrats balking, President Trump canceled plans to travel to his Florida resort and contacted Senator Chuck Schumer, the Democratic leader.

• Timeline: How Congress Got to the Brink of a Shutdown

How the Debate in Congress Breaks Down

By ALICIA PARKAPIAN and WILSON ANDREWS

Lawmakers have until Friday at midnight to pass a short-term spending bill to avoid a government shutdown.

Senate to Vote With Shutdown at Stake

By THOMAS KAPLAN and SHEERYL GAY STOLBERG

44 minutes ago

Senate Democrats appear ready to block legislation to keep the government funded past midnight, gambling that Mr. Trump will offer concessions on immigration and other issues.

574 Comments

“We are not going to desert these young people,” he said, referring to DACA beneficiaries.

Senator Bernie Sanders of Vt.

The Chaos President vs. His Iron-Fisted Chief of Staff

By MAGGIE HABERMAN and JEH JIE

The Justice Department wants to ask if you are a U.S. citizen in the 2020 census. But public distrust of the government could lead Hispanic people to avoid being counted.

Can software predict crime? A study suggests that human amateurs are about as accurate as a popular software that many judges use to
How should we design information to suit the needs and abilities of users?

(forget about interaction for a minute)
You are cordially invited to Robert and Alexandra’s delectable after dinner party. Wine and nibbles will be served. When: February 20\textsuperscript{th}, 2018 at 9:30pm. Where: the pad. If you need directions, ping us. Kindly let us know if you will be attending by February 1\textsuperscript{st}. 
You are cordially invited to Robert and Alexandra’s delectable after dinner party. Wine and nibbles will be served. When: February 20\textsuperscript{th}, 2018 at 9:30pm. Where: the pad. If you need directions, ping us. Kindly let us know if you will be attending by February 1\textsuperscript{st}.

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

Wine and nibbles will be served.

When: February 20\textsuperscript{th}, 2018 at 9:30pm.
Where: the pad. If you need directions, ping us.

Kindly let us know if you will be attending by February 1\textsuperscript{st}.
What is most important?

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

Wine and nibbles will be served.

When: February 20\textsuperscript{th}, 2018 at 9:30pm.
Where: the pad. If you need directions, ping us.

Kindly let us know if you will be attending by February 1\textsuperscript{st}. 
What is most important?

You are cordially invited to

Robert and Alexandra’s
delectable after dinner party.

Wine and nibbles will be served.

When: February 20\textsuperscript{th}, 2018 at 9:30pm.
Where: the pad. If you need directions, ping us.

Kindly let us know if you will be attending by February 1\textsuperscript{st}. 

What is most important?

You are cordially invited to

**Robert and Alexandra’s delectable after dinner party.**

Wine and nibbles will be served.

When: February 20\textsuperscript{th}, 2018 at 9:30pm.
Where: the pad. If you need directions, ping us.

Kindly let us know if you will be attending by February 1\textsuperscript{st}. 
What is most important?

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, 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**.
Version 2 has a good **Hierarchy of Information**

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

A visual hierarchy of information allows designers to guide users’ attention.
Visual Hierarchy Example
Trump in Shutdown Talks With Schemers

The President is considering a deal to reopen the government after weeks of partial closure.

How the President is Considering a Breakthrough

The White House is weighing various options to end the shutdown, including a deal with House Democrats.

The President's team is said to be considering a variety of proposals, including a temporary funding bill to reopen the government.

The shutdown has already caused significant disruptions, with government employees and contractors affected.

What the President is Considering

The President is said to be weighing a range of options, including a deal with House Democrats to fund the government temporarily.

The White House is reportedly considering a combination of approaches, including a temporary funding bill to end the shutdown.

The impact of the shutdown on the economy is also being closely monitored.

The shutdown has caused significant disruptions, with government employees and contractors affected.
Hierarchy != Visual Hierarchy
Tools for conveying importance
0. Conceptual Grouping:
A few high-level visual groups

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, 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.
0. Conceptual Grouping:
A few high-level visual groups
Windows 95 Video Guide with Matthew Perry & Jennifer Aniston

216,782 views

Watch all about the show Friends in a single playlist - [https://www.youtube.com/playlist?list...](https://www.youtube.com/playlist?list...)
Subscribe and watch scenes from all seasons of Friends on my channel - [https://www.youtube.com/channel/UCABV...](https://www.youtube.com/channel/UCABV...)

SHOW MORE
1. Location indicates Importance
Eye Tracking Data
I think I cut this because I already talked about it in the info hierarchy thing
2. Whitespace indicates importance
Whitespace vs. No Whitespace

User Interface Design
COMS 4170 · Spring 2018

Part 1: Build websites that suit the needs and abilities of users.
Part 2: When the needs and abilities of users are uncertain, design systems by learning experimentation.

INSTRUCTOR
Prof. Lydia Chilton
OH: Tuesday 3-4 pm, CEPSR 612
Please contact staff through Piazza only

TAS
Tessa Hurr
Eleanor Murgua
Lucille Sui

WEEKLY
Lecture
Mon, Wed

User Interface Design
COMS 4170 · Spring 2018

Part 1: Build websites that suit the needs and abilities of users.
Part 2: When the needs and abilities of users are uncertain, design systems by learning experimentation.

INSTRUCTOR
Prof. Lydia Chilton
OH: Tuesday 3-4 pm, CEPSR 612
Please contact staff through Piazza only

TAS
Tessa Hurr
Eleanor Murgua
Lucille Sui

WEEKLY
Lecture
Mon, Wed
2. Whitespace indicates importance
3. Size indicates importance
3. Size indicates importance
4. Images indicate importance
4. Images indicate importance
5. **Contrast** indicates importance

You are cordially invited to
Robert and Alexandra’s
deletable 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.
5. **Contrast** indicates importance
6. Color indicates importance
6. Color indicates importance
6. Color indicates importance
BUT use structure first, then color to enhance
BUT use structure first, then color to enhance
Tools for indicating importance in the visual Information Hierarchy

• Conceptual grouping
• Location
• Whitespace
• Size
• Images
• Contrast
• Color
Information Hierarchy guides attention at a high level...

But often users need to find something very specific.
To find specific items, users exhibit Information Foraging.
Information Foraging
**Information scent:** visual or textual clues that the user is on the right track to their goal

Information scent enables users to find what they are looking for.
Tools for providing information scent
1. Simple text labels.
BUT some data don’t need labels
BUT some data don’t need labels
Using Information Scent to re-find a thread
2. Familiar Icons
But not unfamiliar icons
But not unfamiliar icons
But not unfamiliar icons
But not unfamiliar icons
Icons are useful when users don’t know the word for it.
Grouping conceptually related things
Grouping conceptually related things
Grouping conceptually related things
Grouping conceptually related things
Grouping conceptually related things
Menus widely used to group conceptually related things
Welcome to CHI 2012

The ACM SIGCHI Conference on Human Factors in Computing Systems is the premier international conference on human-computer interaction. CHI focuses on the centrality of experience—fostering human-centered research and design innovation through hands-on interactivity.

The experience of CHI 2012 is centered in Austin, Texas, the capital of the world. Home to the University of Texas at Austin, music, film, and interactive festival and co-host of the SXSW Interactive Festival and Conference. We look forward to joining you in Austin.

General Conference Chair:
Joseph A. Konstan, University of Minnesota

Technical Program Chairs:
Ed H. Chi, Google
Kristina Höök, Mobile Life @ KTH, Sweden.

CHI 2012 Housing

The housing bureau is now closed. If you need to arrange your own accommodation 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

CHI 2012 is being held at the Austin Convention Center in downtown Austin, near Town Lake.

Champion Sponsors
Autodesk

Beauty
Aesthetics Matter

Users worked harder to find information when the site was prettier.
Information Design Summary

The main goal of many websites is to **display information users need**.

Users can’t focus on everything at once. A visual hierarchy of information allows designers to **guide users’ attention toward what’s important**.

To find specific items, users exhibit “information foraging”. Providing **good information scent helps users forage**.

- Office Hours Tuesday 3-4 CEPSR 612
- Assignment 1 Due Wednesday @11:59PM
Users can’t focus on everything at once. They have a spotlight of attention.