

Human-Computer Interaction Design



COGS120/CSE170 - "Intro. HCI"

Instructor: Philip Guo

Week 6 - Visual Design (2016-11-01)

some slides adapted from Scott Klemmer's Intro. HCI course

Learning Objective

use basic visual design principles to make your app easier for people to comprehend & navigate

Outline

- Visual design basics: text, layout, and colors
- Information scent
- Exam I answers, help with coding/Heroku issues

What is visual design?

*making everything look
aesthetically beautiful?*

“But, but I’m not an artist!!!”

Rather, visual design is about ...

GUIDING: conveying structure, relative importance, relationships

PACING: drawing people into your app, orienting them, and showing where to go

MESSAGING: expressing meaning and style, breathing life into your content

Visual design is not just ...

*making everything look
aesthetically beautiful*

Good news: artistic skill helps a bit but is
neither necessary nor sufficient. Art does
not need to be practical; design does.

This lecture teaches you the very basics of visual design.

Caveat: This skill can take a lifetime to master, and there is often no “right” answer, only widely-accepted heuristics.

Basic visual design involves text, layout, and colors. First let's start with text. Gracefully using whitespace helps separate out logical chunks of content. Next, font size and style differences convey hierarchy. Finally, alignment is crucial for helping readers scan quickly.

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Basic visual design involves ...

Text

Gracefully using whitespace helps separate out logical chunks of content.

Next, font size and style differences convey hierarchy.

Finally, alignment is crucial for helping readers scan quickly.

Layout

Colors

Text

- ***Whitespace***: helps separate out logical chunks of content
- ***Font***: size and style differences convey hierarchy
- ***Alignment***: crucial for helping readers scan quickly

Layout

Colors

Basic visual design involves text, layout, and colors. First let's start with text. Gracefully using whitespace helps separate out logical chunks of content. Next, font size and style differences convey hierarchy. Finally, alignment is crucial for helping readers scan quickly.

Basic layout: grids grids grids everywhere

ChromeFileEditViewHistoryBookmarksPeopleWindowHelp

The New York Times - Breakin...Philip

www.nytimes.com


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ELECTION 2016

Clinton Forges Slim Lead With Early Turnout in Swing States

By JEREMY W. PETERS and MATT FLEGENHEIMER

- At least 21 million early votes are in. And in states likely to decide the election — like Florida, Colorado and Nevada — close to a quarter of the electorate has already voted.
- Turnout tallies may mitigate the fallout from Hillary Clinton's latest scrap with the F.B.I. over her use of a private email server.




- Clinton Campaigns Past Email Issue; Trump Revels in It
- Trump Takes Lead in Florida in New Poll

Justice Department Obtains Warrant to Review Aide's Emails

By MATT APUZZO, MICHAEL S. SCHMIDT and ADAM GOLDMAN

WORLD SERIES



The Cubs' Anthony Rizzo celebrated after scoring in the fourth inning. Elsa/Getty Images

Finally, a Little Joy in Wrigleyville

By BILLY WITZ

The Chicago Cubs are not done yet. Kris Bryant homered as part of a three-run rally, and the Cubs' pitchers made it hold up in a 3-2 victory in Game 5 to send the World Series back to Cleveland.

- Terry Francona's Legacy? 'Not on My Mind,' He Says
- A 71-Year-Old Promise of Tickets to Wrigley Is Fulfilled


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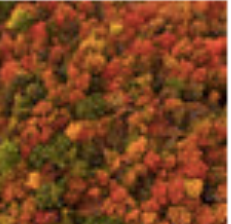
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SMARTER LIVING



How to Create Space in a Tiny Home




Why Does Fall Foliage Turn So Red and Fiery? It Depends.

THE UPSHOT


8m

James Galanos, a fashion designer for the elite who outfitted Nancy Reagan for inaugural events, has died at 92.



3h

London's growing audiophile scene has paved the way for listening clubs, cafes or bars




The Opinion Pages

OPINION

I Registered to Vote... For This?

By EMMA ROLLER

What Clinton vs. Trump feels like for first-time voters.



OPINION

Spain's Bullfighting Fight

By MIGUEL-ANXO MURADO

First, Barcelona banned it. Now, Madrid says it must go on.

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My Six-Hour Interview with Warren Beatty

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Election Forecast: Hillary Clinton has a 90% chance of winning.

Clinton

Trump

Complete forecast

Newsletter

Updated Mon., Oct. 31 at 3:08 AM ET

October 30, 2016

Basic layout: grids grids grids everywhere

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The New York Times - Breakin... Philip

www.nytimes.com

World U.S. Politics N.Y. Business Opinion Tech Science Health Sports Arts Style Food Travel Magazine T Magazine Real Estate

'Whole Bunch of Different Horribles'

By JIM RUTENBERG

Senator Al Franken of Minnesota is among those who see potential peril in AT&T's deal for Time Warner and all of its content.

- Odd Couple: Freewheeling HBO and Buttoned-Up AT&T

A Scaredy-Cat's Investigation Into Why People Enjoy Fear

MORE NEWS

- Subject of Oklahoma Manhunt Is Killed in Shootout 1:39 AM ET
- 3rd Powerful Earthquake Hits Rattled Italy
- Israeli Columnist Resigns Amid Harassment Claims
- Iceland's Prime Minister Falls as Pirate Party Surges
- TV Recaps: 'The Walking Dead' | 'Westworld' | 'Insecure'

Charles Finch talks about the season's thrillers, and Marilyn Stasio discusses new true-crime books in The Times's latest Book Review podcast.

3d

Jennifer Lopez will star in a live TV adaptation of "Bye Bye Birdie."

3d

The show, on NBC, will be the network's holiday season offering in December 2017.

Soylent says it will reformulate two of its meal replacers after customers who ate the products reported becoming ill.

3d

A Thai man was sentenced to 10 years in prison for the attack on an American tourist, but the punishment was cut in half because he pleaded guilty.

3d

After 15 months, scientists can finally analyze the more than 400 scientific observations that NASA's New Horizons spacecraft made of Pluto and its largest moon, Charon.

3d

Send Feedback

'Each Exhibition We Do Is a Book Telling a Story'

Since it opened 10 years ago, the Quai Branly in Paris has embraced diverse cultural elements like Chinese cuisine, tattoos and American jazz.

The Existence of Ghosts Is Beside the Point

What compels Colin Dickey in his book "Ghostland" is the meaning of haunted places in contemporary American culture.

10 Things to Know Before Seeing 'Doctor Strange'

Benedict Cumberbatch stars as the title character, who arrived unheralded in 1963 as a back-of-the-book feature to the Human Torch.

FROM OUR ADVERTISERS

CHEVRON

Energy and the Economy

How natural gas helped to grow our GDP.

TOYOTA

Redesigning Glasses for Good

Why glasses should be an accessory - not a necessity.

ADOBE

Is This the New 9-to-5?

How collaborative tech is changing the way we work.

CARTIER

A Mansion for the Digital Age

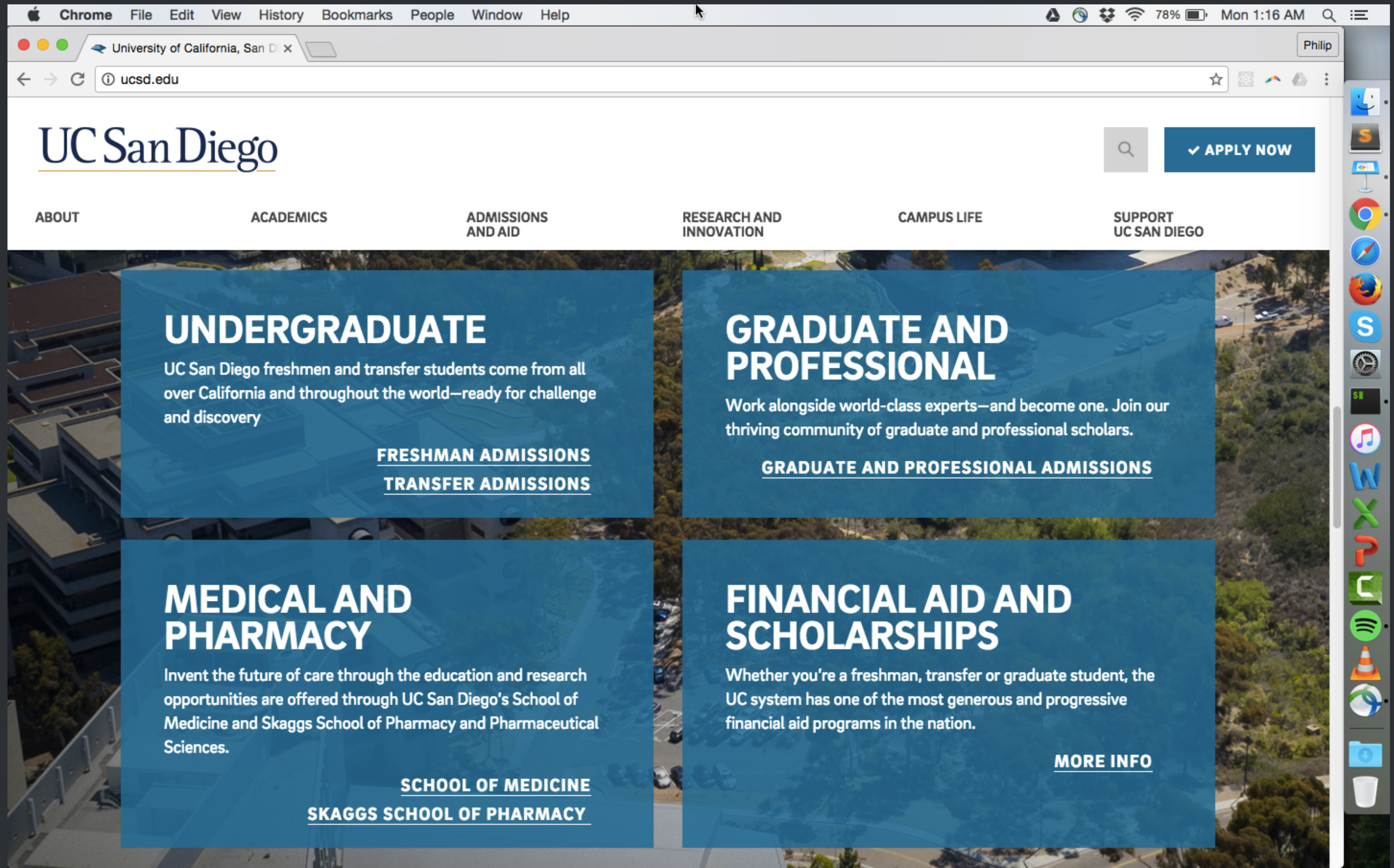
Take a trip back in time with the iconic Cartier Mansion.

MERCEDES BENZ

Rethinking America's Roads

How researchers are paving the way to a safer tomorrow.

Basic layout: grids grids grids everywhere




The Bootstrap library lets you make grids

Chrome File Edit View History Bookmarks People Window Help 77% Mon 1:18 AM

Getting started · Bootstrap


https://getbootstrap.com/getting-started/ Philip

Using the framework



Bootstrap starter template

Use this document as a way to quickly start any new project. All you get is this one ready-to-edit HTML document.



Hello, world!


This is a template for a simple marketing or informational website. It includes a large callout called the hero unit and three supporting pieces of content. Use it as a starting point to create something more unique.

Buttons

Default Primary Success Danger Link

Thumbnails

Thumbnail



Bootstrap grid examples

Basic grid layout with columns and rows.

Three equal columns

Three equal width columns in one row.

Three unequal columns

Three columns of different widths in one row.

Two columns

Two columns of different widths in one row.

Full width, single column

Full width, single column.

Two columns with two nested columns

Two columns with two nested columns.

Download

What's included

Compiling CSS and JavaScript

Basic template

Examples

- Using the framework
- Navbars in action
- Custom components
- Experiments

Tools

Community

Disabling responsiveness

Migrating from 2.x to 3.0

Browser and device support

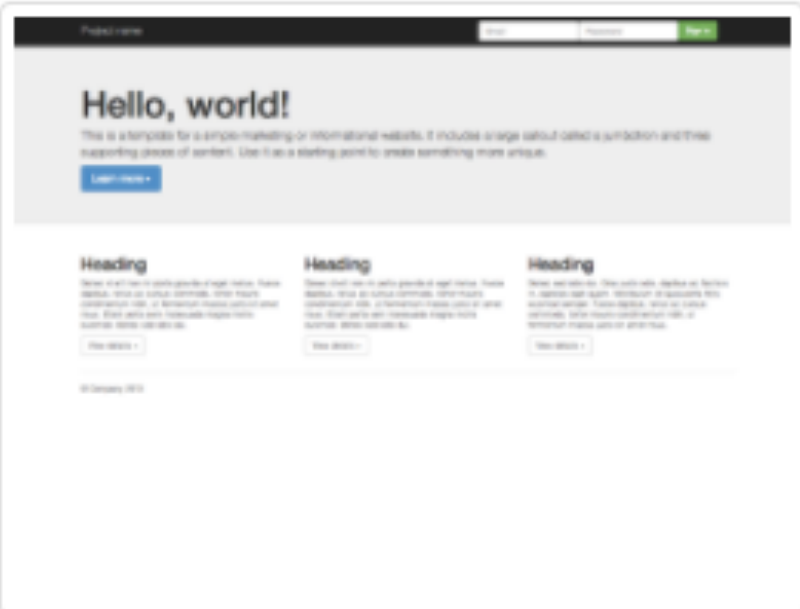
Third party support

Accessibility

License FAQs


Translations

Back to top




Starter template

Nothing but the basics: compiled CSS and JavaScript along with a container.




Bootstrap theme

Load the optional Bootstrap theme for a visually enhanced experience.




Grids

Multiple examples of grid layouts with all four tiers, nesting, and more.




Jumbotron

Build around the jumbotron with a navbar and some basic grid columns.



Narrow jumbotron

Build a more custom page by narrowing the default container and jumbotron.



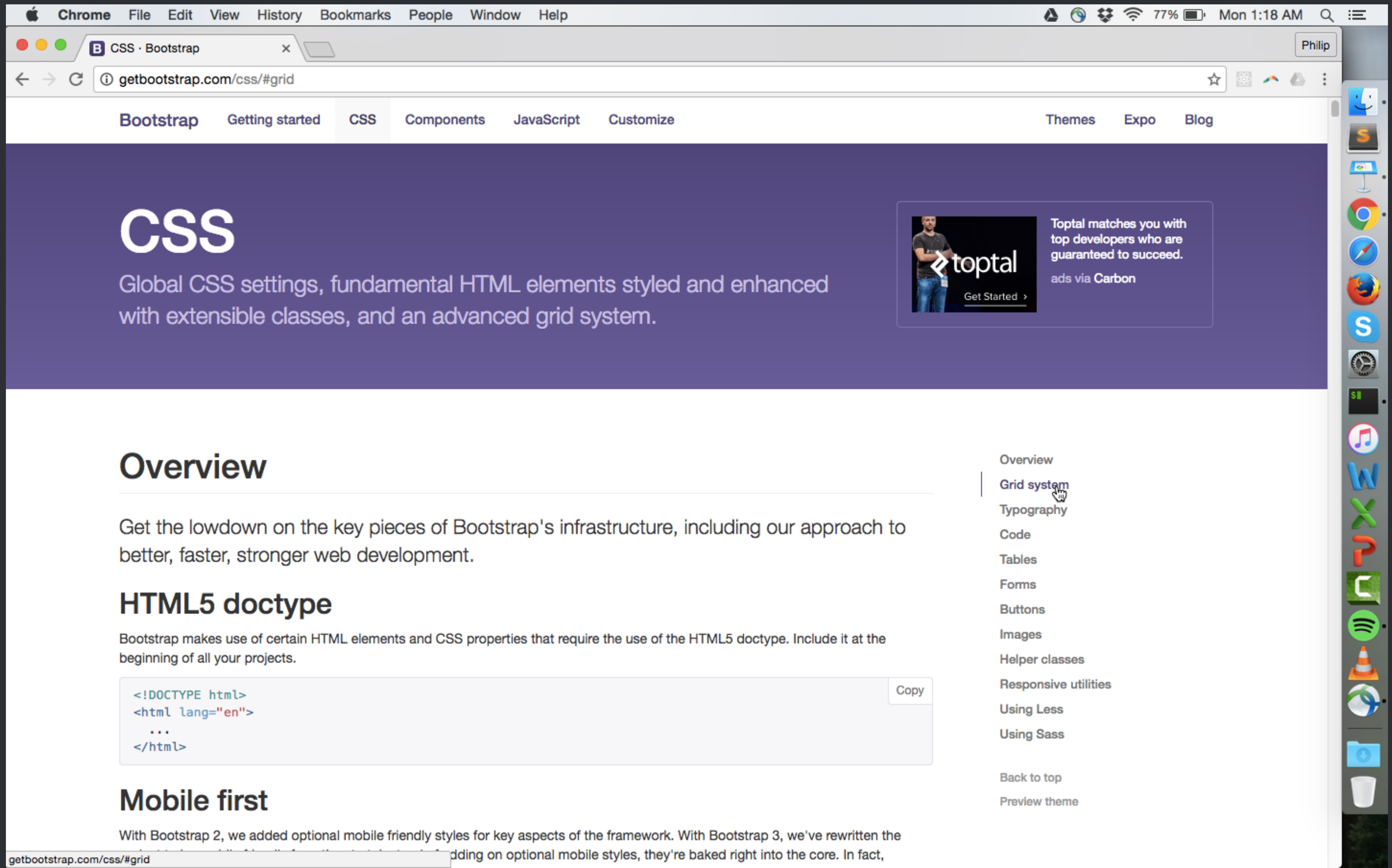
Navbars in action

Build around the jumbotron with a navbar and some basic grid columns.

https://getbootstrap.com/examples/grid/ vbar example

Navbar example

The Bootstrap library lets you make grids



The screenshot shows a Chrome browser window with the URL `getbootstrap.com/css/#grid`. The page title is "CSS · Bootstrap". The navigation bar includes links for "Bootstrap", "Getting started", "CSS", "Components", "JavaScript", "Customize", "Themes", "Expo", and "Blog". The main content area has a purple header with the word "CSS" in large white letters, followed by the text: "Global CSS settings, fundamental HTML elements styled and enhanced with extensible classes, and an advanced grid system." Below this is a "Tiptal" advertisement. The "Overview" section is highlighted in the left sidebar, and the "Grid system" link is highlighted in the right sidebar. The main content area shows the "Overview" section with the text: "Get the lowdown on the key pieces of Bootstrap's infrastructure, including our approach to better, faster, stronger web development." Below this is the "HTML5 doctype" section with the text: "Bootstrap makes use of certain HTML elements and CSS properties that require the use of the HTML5 doctype. Include it at the beginning of all your projects." A code block shows the HTML5 doctype:

```
<!DOCTYPE html>
<html lang="en">
...
</html>
```

 Below the code block is the "Mobile first" section with the text: "With Bootstrap 2, we added optional mobile friendly styles for key aspects of the framework. With Bootstrap 3, we've rewritten the...". The footer shows the URL `getbootstrap.com/css/#grid`.

Chrome File Edit View History Bookmarks People Window Help 77% Mon 1:18 AM

CSS · Bootstrap

getbootstrap.com/css/#grid

Bootstrap Getting started CSS Components JavaScript Customize Themes Expo Blog

CSS

Global CSS settings, fundamental HTML elements styled and enhanced with extensible classes, and an advanced grid system.

Tiptal matches you with top developers who are guaranteed to succeed. ads via Carbon

Overview

Get the lowdown on the key pieces of Bootstrap's infrastructure, including our approach to better, faster, stronger web development.

HTML5 doctype

Bootstrap makes use of certain HTML elements and CSS properties that require the use of the HTML5 doctype. Include it at the beginning of all your projects.

```
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...
</html>
```

Copy

Mobile first

With Bootstrap 2, we added optional mobile friendly styles for key aspects of the framework. With Bootstrap 3, we've rewritten the...

Overview
Grid system
Typography
Code
Tables
Forms
Buttons
Images
Helper classes
Responsive utilities
Using Less
Using Sass

Back to top
Preview theme

getbootstrap.com/css/#grid

Colors

Browser: CAR LEASING CHEAP LEA x | www.lingscars.com | Kasia

Note: I live inside this website Monday to Friday 9am-6pm, to give you the very best service and make your experience a happy one! - I am Ling, accept no substitutes

LINGSCARS.com

UK CONTRACT HIRE CARS FROM LING VALENTINE

Version 237.1. You can trust me! ... In 2014 I'll rent over £75 million of cars (at RRPs)

CAR LEASING - CONTRACT HIRE - CHEAP LEASE CARS

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NEW SEXY christine full rep

FEAR CARS

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LING'S LIVE TWITTER FEED

ruan_odendaal: @LINGSCARS I do, commute via train into London and use the car evening & weekends only. I wouldn't buy a Fiesta though lol

Kentmoto: @LINGSCARS @BuckinghamFord do think individuals sign to these cheap low mileage lease... I clock the car before handing them back?

LINGSCARS: I've hit last year's invoice total for July, with 1 week of invoicing still to go this month. Onward and upwards!

Intro Film | News | Blog | Office TV | Contact | Moan | Links | Play Quiz | Privacy Policy | Google Visitors

"JUST CLICK!"

THE BEST... FREQUENTLY ASKED QUESTIONS ...IN THE WORLD!

You can't find a car? Apply for a CAR QUOTE

AS SEEN ON TV TWO DRAGONS' DEN

Richard Farleigh - "I wanted to invest; I was amazed by Ling's complete lack of nerves, and also by her business acumen."

Duncan Bannatyne - "I wanted to invest... but ye turrrn'ed me dooon!"

Deborah Meaden - "Harrumph! I'm out!"

MEET MY STAFF

VIZ Ling is OFFICIAL VIZ ethnic business ambassador!

PLAY STUPID CRASH GAME!

CHEAP INSURANCE

Google Spider Food

View LIVE visitors: 39 online

Hi! I am Ling from Dragons' Den. I lease cheap new cars!

UPDATE... The latest car I've added is a Smart ForTwo Coupe 1.0 i 12v (70bhp) Passion Premium Coupe 2dr 999cc Petrol at

ABARTH CAR LEASING

500
500 Convertible
595
595 Convertible

ALFA ROMEO LEASE CARS

Giulietta
Mito

Close (X)

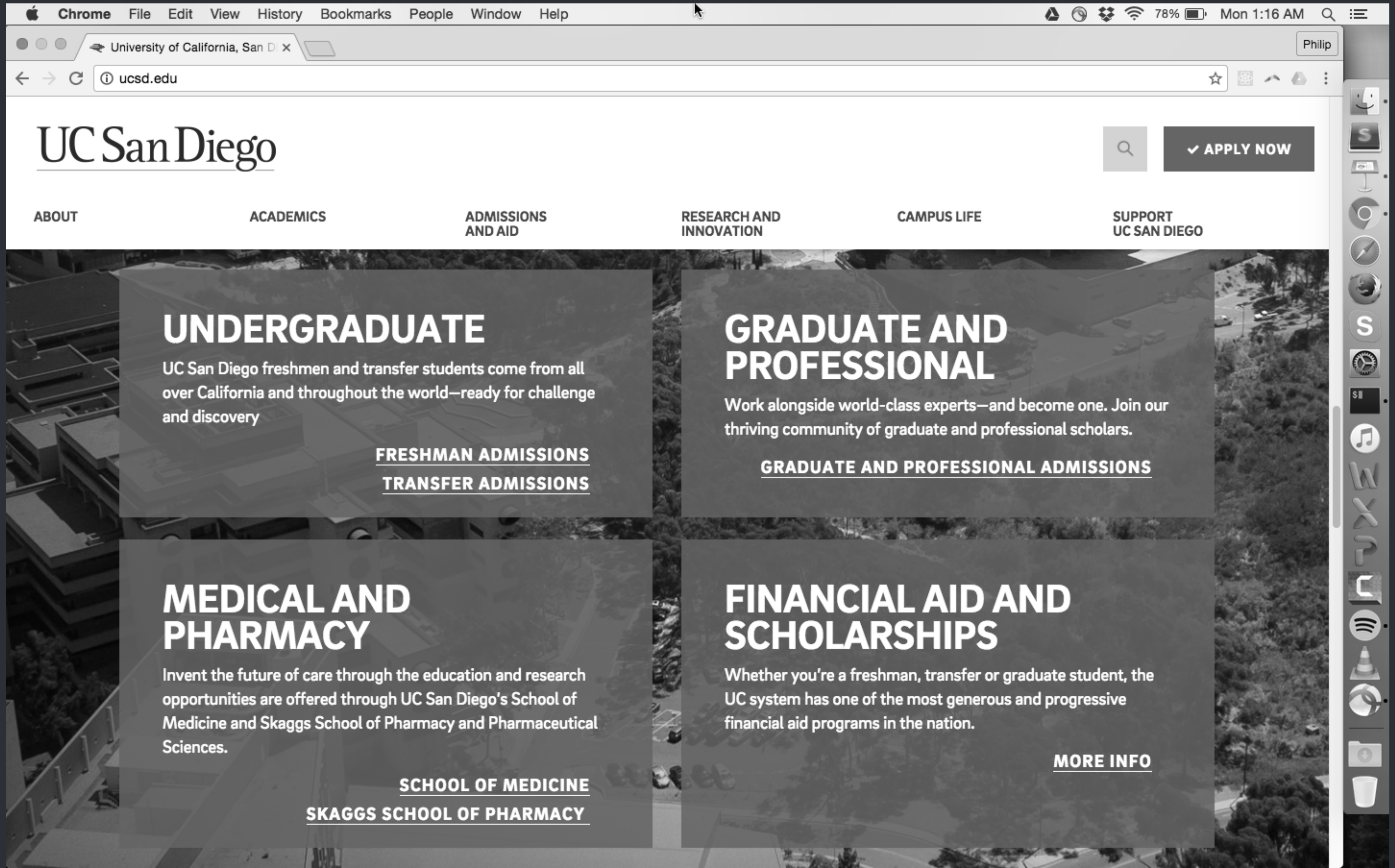
THE BEST FAQs JUST CLICK IN THE WORLD!

Close (X)

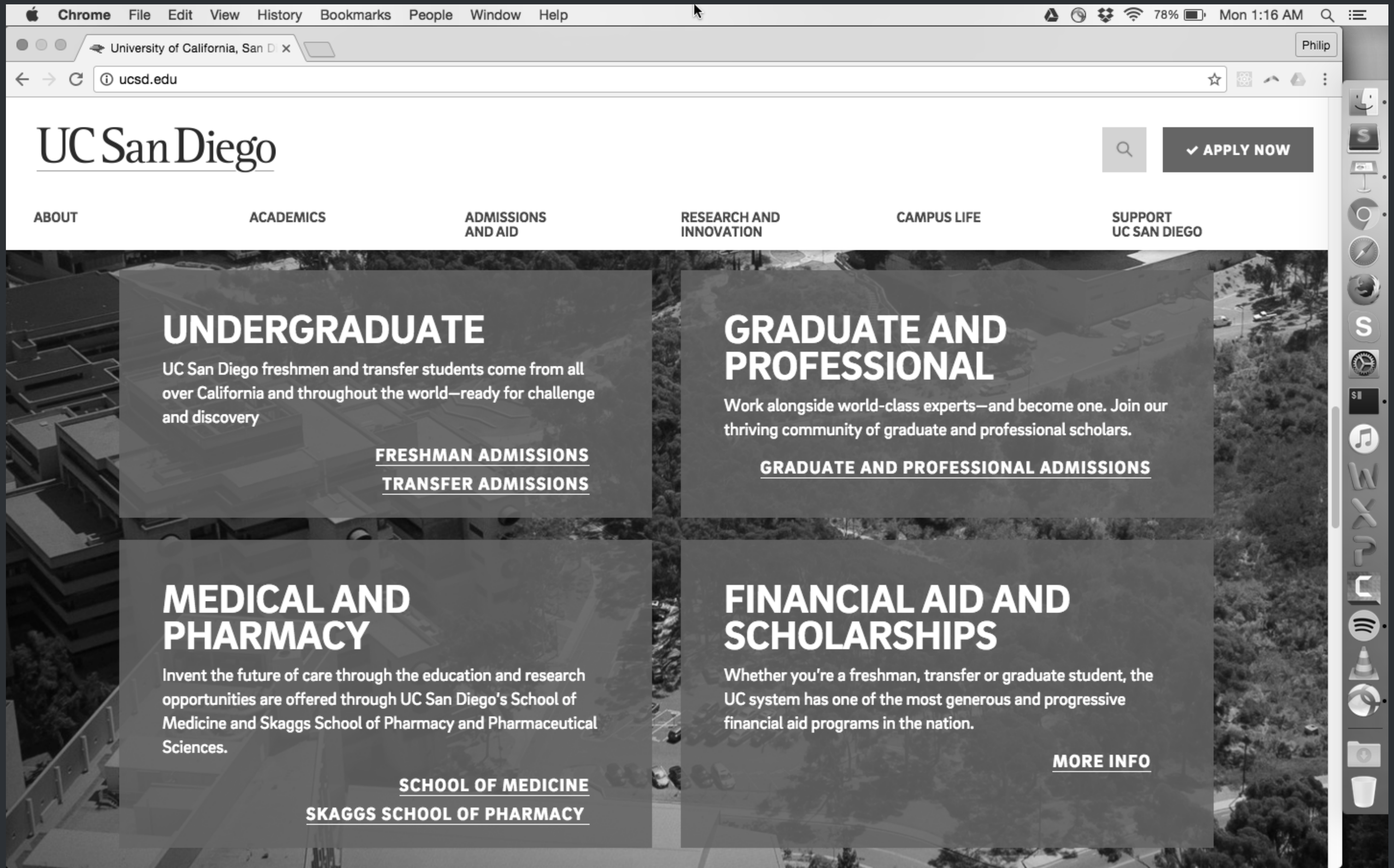
LIVE CHAT!

关闭 CLOSED

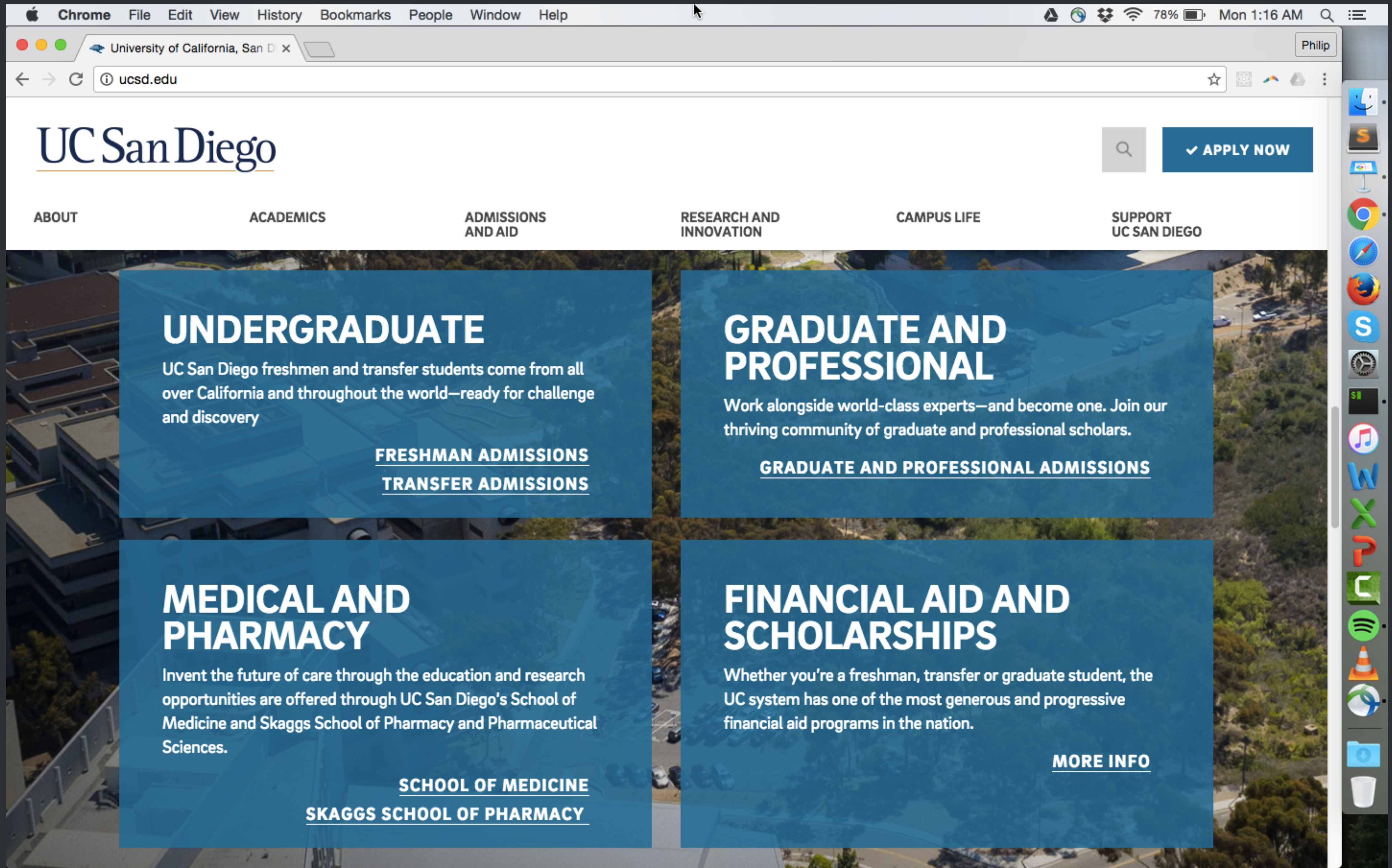
Basic colors: first do text and layout



Basic colors: ... design for grayscale



Basic colors: ... then add a few colors



Use a limited and consistent color palette

The screenshot shows a web browser displaying the UC San Diego Color Palette page. The page features a blue header with navigation links and a search bar. The main content area is titled "COLOR PALETTE" and includes a paragraph explaining the palette's inspiration. It lists eight colors in two rows: Core colors and Accents. Each color is represented by a circle and its corresponding Pantone, CMYK, RGB, and hex codes. A sidebar on the right contains a "Brand Requests" button and a list of brand-related links.

UC San Diego

UCPA

Home **About** **Services** **Resources and Information** **Brand** **More**





Search UCPA

UC San Diego





COLOR PALETTE

No two colors represent our campus better than our alma mater blue and gold. Inspired by our two primaries, we created an expanded palette suitable for print applications.

Core colors

Color	Pantone	CMYK	RGB	Hex
	Pantone 2767	C:100 M:86 Y:42 K:42	R:24 G:43 B:73	#182B49
	Pantone 3015	C:100 M:35 Y:3 K:21	R:0 G:106 B:150	#006A96
	Pantone 1245	C:6 M:35 Y:99 K:18	R:198 G:146 B:20	#C69214
	Pantone 116	C:0 M:14 Y:100 K:0	R:255 G:205 B:0	#FFCD00

Accents

Color	Pantone	CMYK	RGB	Hex
	Pantone 3115	C:70 M:0 Y:16 K:0	R:0 G:198 B:215	#00C6D7
	Pantone 7490	C:60 M:23 Y:92 K:5	R:110 G:150 B:59	#6E963B
	Pantone 3945	C:3 M:0 Y:90 K:0	R:243 G:229 B:0	#F3E500
	Pantone 144	C:0 M:51 Y:100 K:0	R:252 G:137 B:0	#FC8900

Brand Requests

- Brand
- Brand Story
- Brand Marks
- Brand Elements
 - Color Palette
 - Typography
 - Photography
 - Graphics
- Brand Applications
- Brand Downloads
- Policies
- Contacts

Information scent

How easily can users
“sniff out” what content
is on your site and
where to navigate to?

Good information scent

Users can easily figure out how to get the information they want, and also realize what options are available.

Bad information scent

Users flail around your site in confusion, use the Back button a lot, and are not confident about where links will lead them (both before and after clicking).

Designing for good information scent

Basics: where to put key
content on webpages, and
how to structure links to
other pages on your site

Where to put key content? Where users look

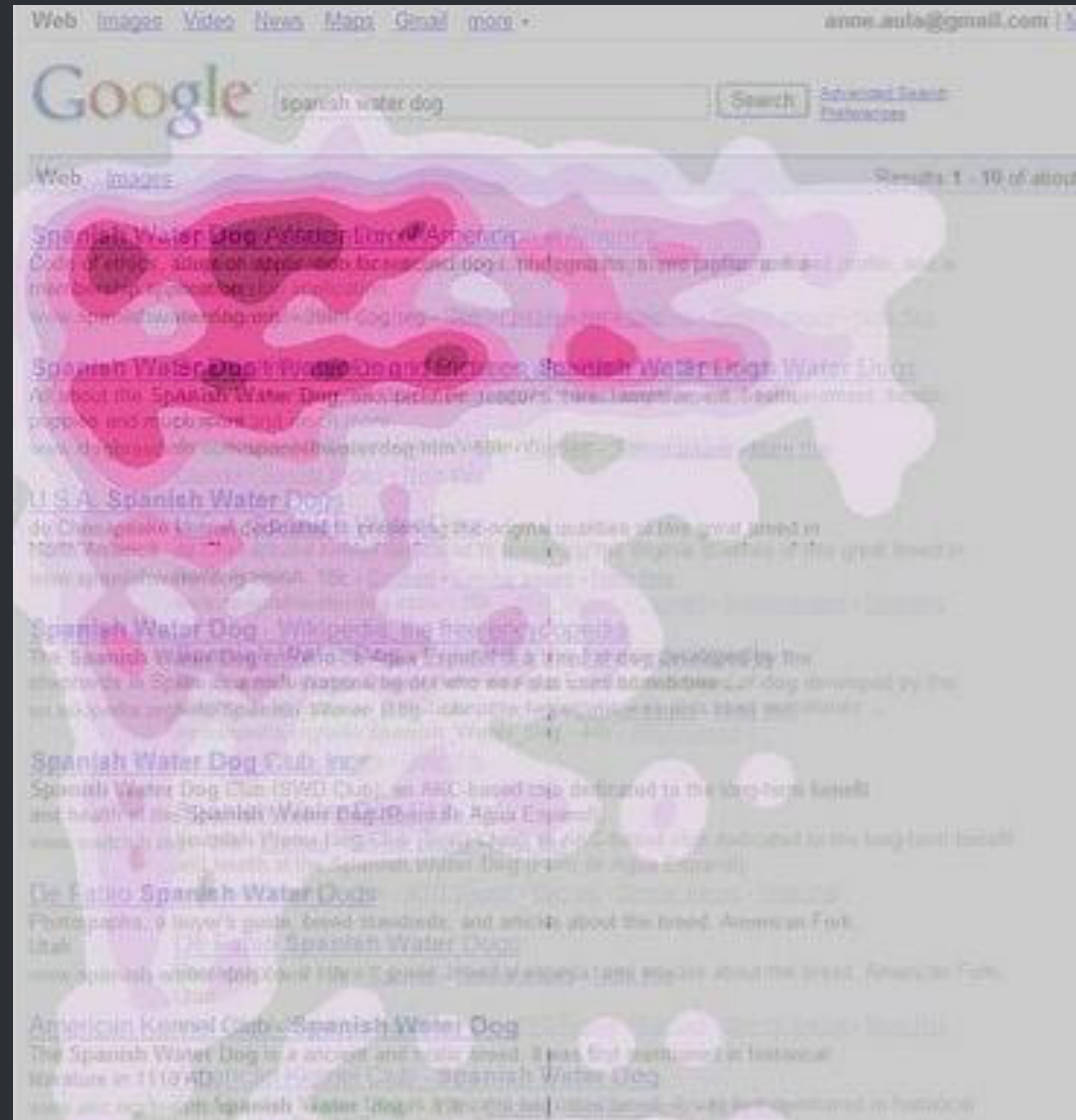
Jakob Nielsen's F-shaped heatmaps (2006)



<http://www.avamae.co.uk/Blog/4-Revealing-Eyetracking-Studies>

Where to put key content? Where users look

Google search page study, also F-shaped (2009)



<http://www.avamae.co.uk/Blog/4-Revealing-Eyetracking-Studies>

Where to put key content? Where users look

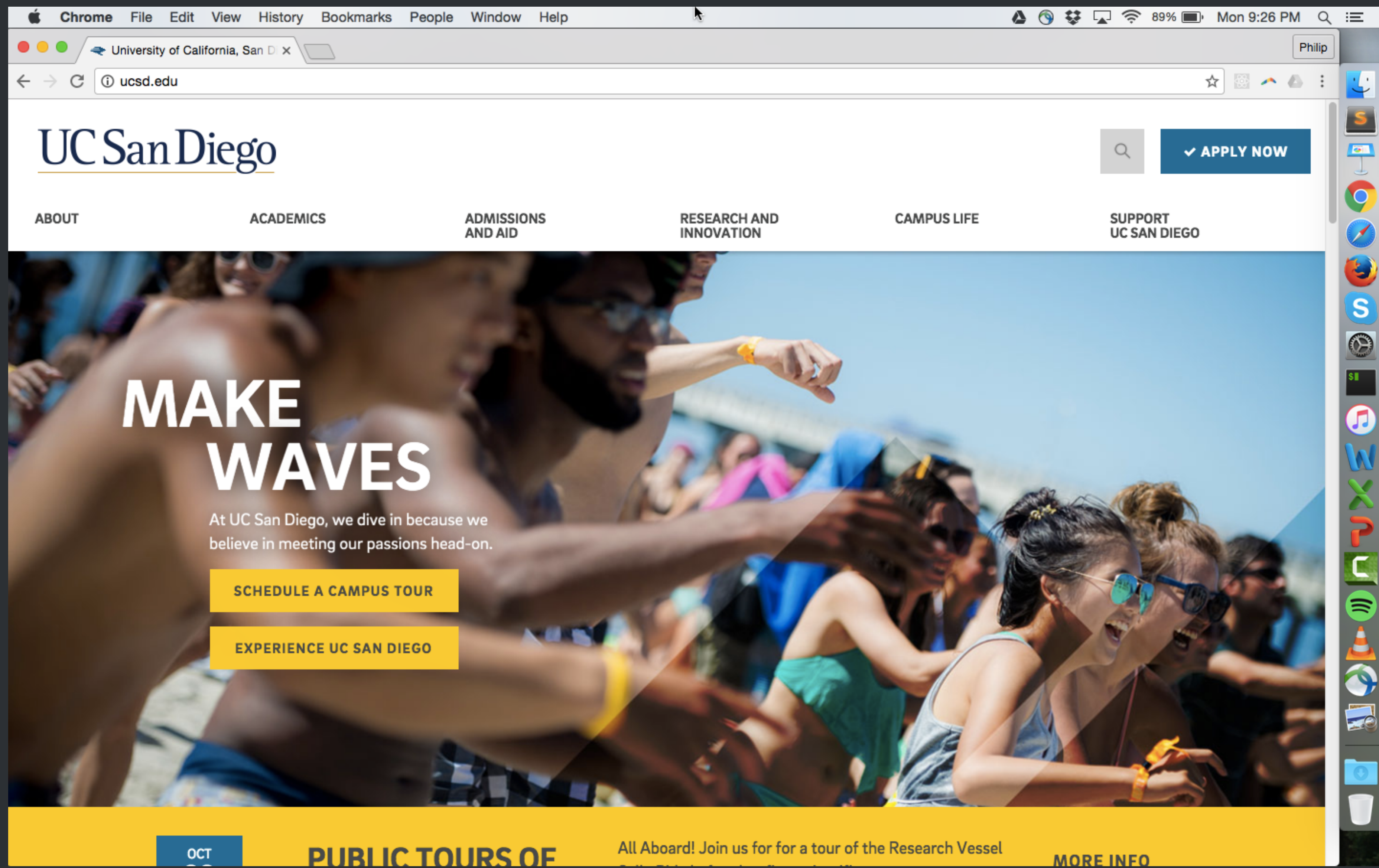
Poynter Institute (news/media websites)



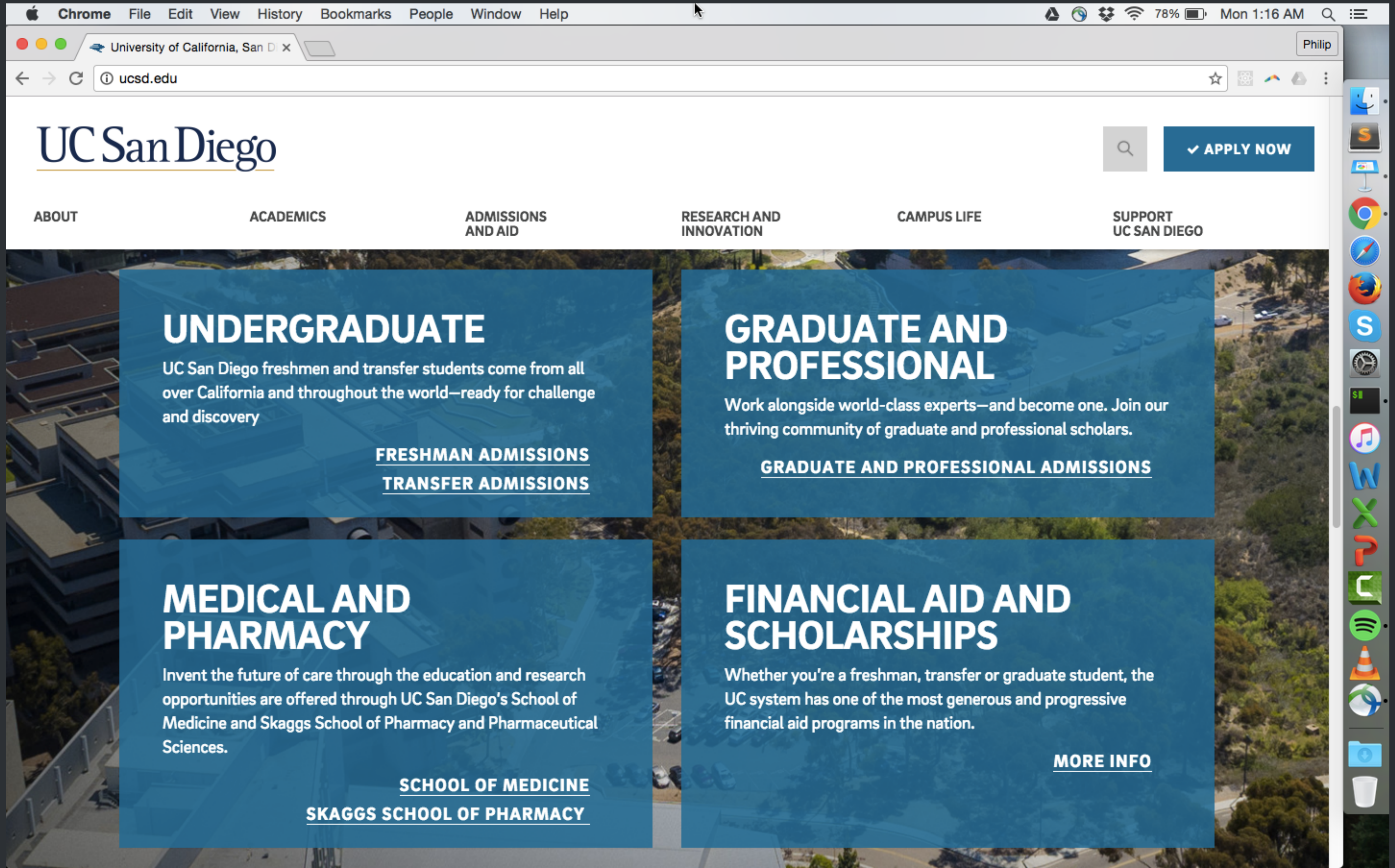
<http://www.avamae.co.uk/Blog/4-Revealing-Eyetracking-Studies>

Above/below the fold ...

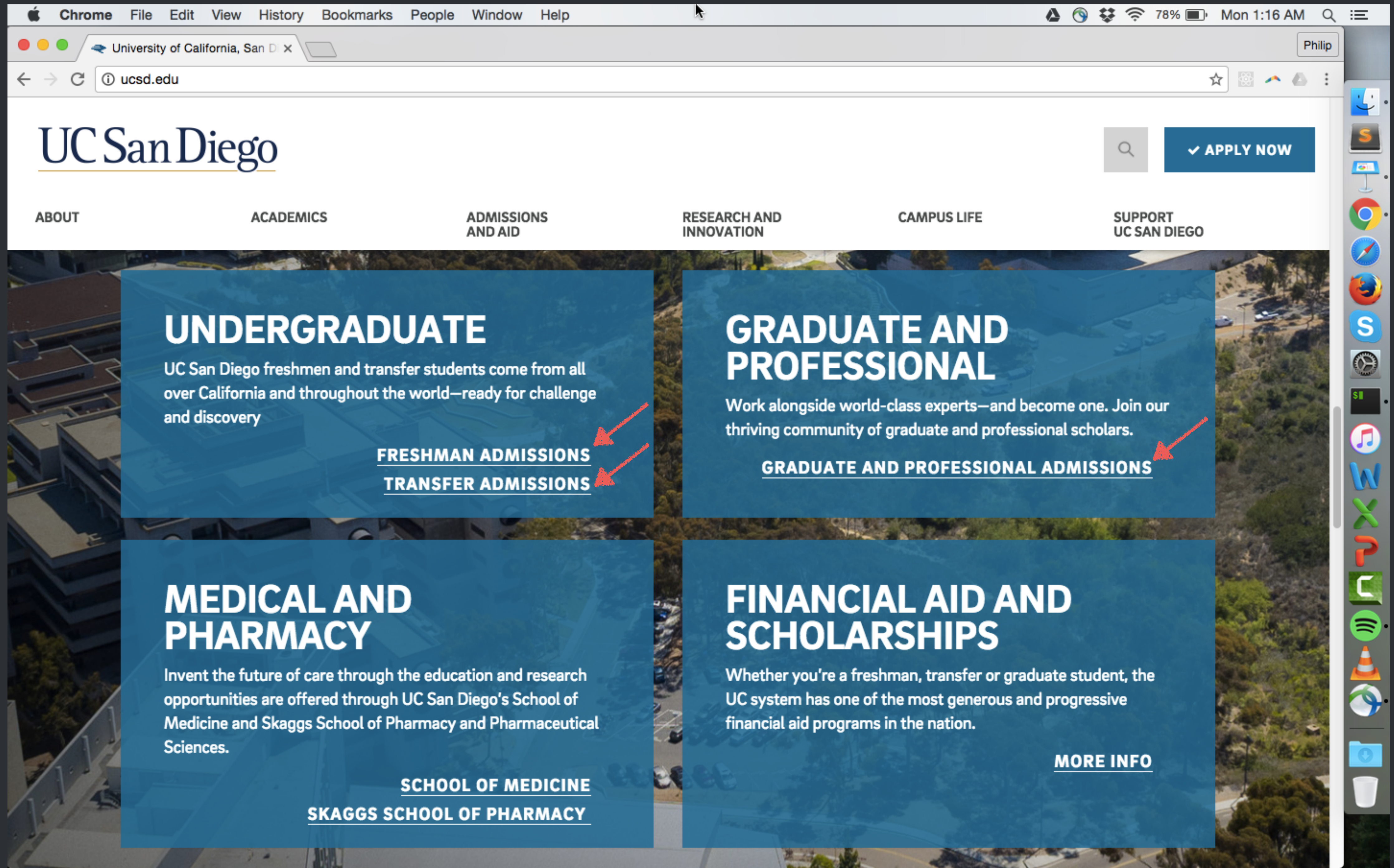
Above the fold (one screenful) is most critical;
if that's appealing, users will scroll down



... after scrolling down ...



Don't make your link text too brief; redundancy is OK



Don't make your link text too brief; redundancy is OK

Bad link text: For more project info, click here

Better link text: Read some more project info

Even better: Read our project implementation details

*Visual design ≠
Visual arts*

Visual design {text, layout, colors}, information scent

GUIDING: conveying structure, relative importance, relationships

PACING: drawing people into your app, orienting them, and showing where to go

MESSAGING: expressing meaning and style, breathing life into your content

Learning Objective

use basic visual design principles to make your app easier for people to comprehend & navigate

TODOs after class

- check Google Spreadsheet grades for accuracy
- lots of code/implementation in next few weeks!