

Visual Design and Fluid Navigation

Human Computer Interaction

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Academic Year 2019/2020



POLITECNICO
DI TORINO



Visual Design

Aesthetics for helping users in understanding and navigating the UI

Visual Design

- **Guiding:** conveying structure, relative importance, relationships
- **Pacing:** drawing people into your app, orienting them, and showing where to go, providing hooks to dive deeper
- **Messaging:** expressing meaning and style, breathing life into your content
- Both at the conscious and sub-conscious levels
- And also...
 - Making everything look aesthetically beautiful
 - (but this is not the goal)

Visual Design vs. Art and Artistic Skills

- A.k.a. «Help, I'm not an artist!»
- Artistic skills help a bit but are neither necessary nor sufficient
- Art does not need to be practical; design does
- Real design skills take years to master
- Widely-accepted heuristics are a good and easy start



The Basics of Visual Design

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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The Basics of Visual Design

Basic visual design involves ...

Text

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Layout

Colors

The Basics of Visual Design

BASIC VISUAL DESIGN

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

Recognizable page structure

The screenshot displays the homepage of the Italian newspaper **LA STAMPA**. The top navigation bar includes links for **GNN**, **NEWSLETTER**, social media icons for **TWITTER** and **FACEBOOK**, and options for **ABBONATI** and **ACCEDI**. Below the header, the **LA STAMPA** logo is prominently displayed. The main menu offers links to **LEGGI IL QUOTIDIANO**, **TOP NEWS**, and **TUTTOLIBRI**. A search icon is also present. The date **Aggiornato alle 22:45 - 04 novembre** is shown, along with regional links for **La caduta del Muro**, **Serie A**, **Siria**, **Manovra**, **TORINO**, and **EDIZIONI LOCALI**.

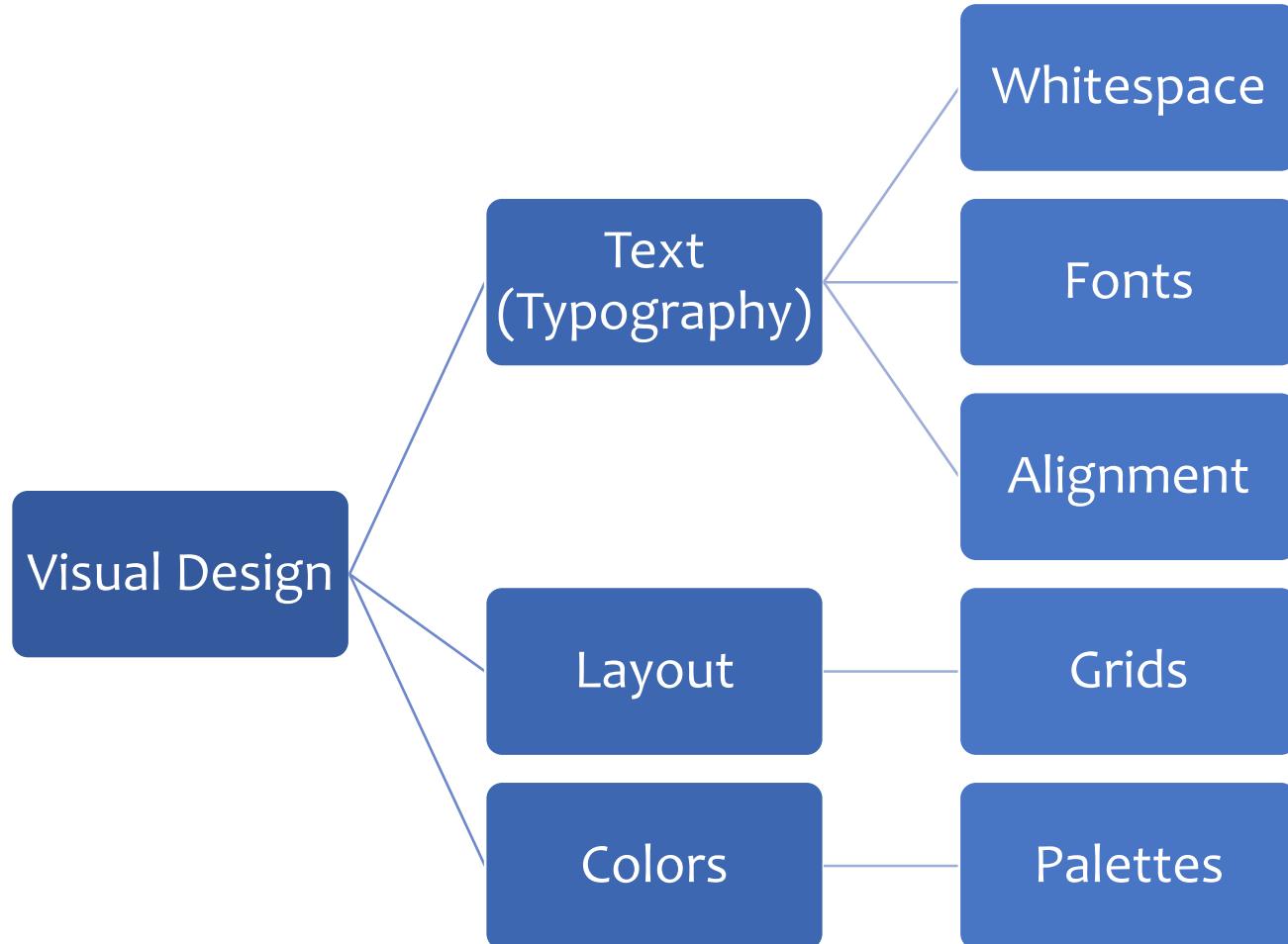
The homepage features several news cards:

- I demoni di Hamilton: "Non è facile come sembra, per me è durissima"** by STEFANO MANCINI
- Lavorare meno per rendere di più: la ricetta funziona davvero** by EMANUELA GRIGLIE
- Reportage Trombe d'aria, pioggia e fiumi esondati: in Liguria torna l'incubo alluvione** by MARCO MENDUNI
- ArcelorMittal abbandona Taranto e l'ex Ilva. Scoppia la polemica. L'azienda: c'era il diritto di recesso** by PAOLO BARONI (with a video thumbnail)
- Intervista - Calenda: sull'Ilva di Taranto distrutto il lavoro di anni** by PAOLO BARONI
- ArcelorMittal si tira indietro sull'Ex Ilva, ecco quanto pesa la decisione su Taranto** by GIULIA CIANCAGLINI
- La storia dell'acciaieria più grande d'Europa. Ecco l'Ilva dal 2012 a oggi** by MARCO ZATTERIN (with a video thumbnail)
- Il surriscaldamento climatico è arrivato nel profondo delle Alpi** by NICOLA PINNA (with a video thumbnail)
- LA STORIA DI GIOVANNI BELZONI IN UN LIBRO** by PAOLO BARONI (with a video thumbnail)
- Da Abu Simbel a Giza, l'italiano che inventò l'egittologia** by MARCO ZATTERIN
- SECONDO NOI** by MARCO SODANO (with a video thumbnail)
- Sud svuotato e senza lavoro: lo Svimez lancia l'allarme recessione** by MARCO SODANO (with a video thumbnail)

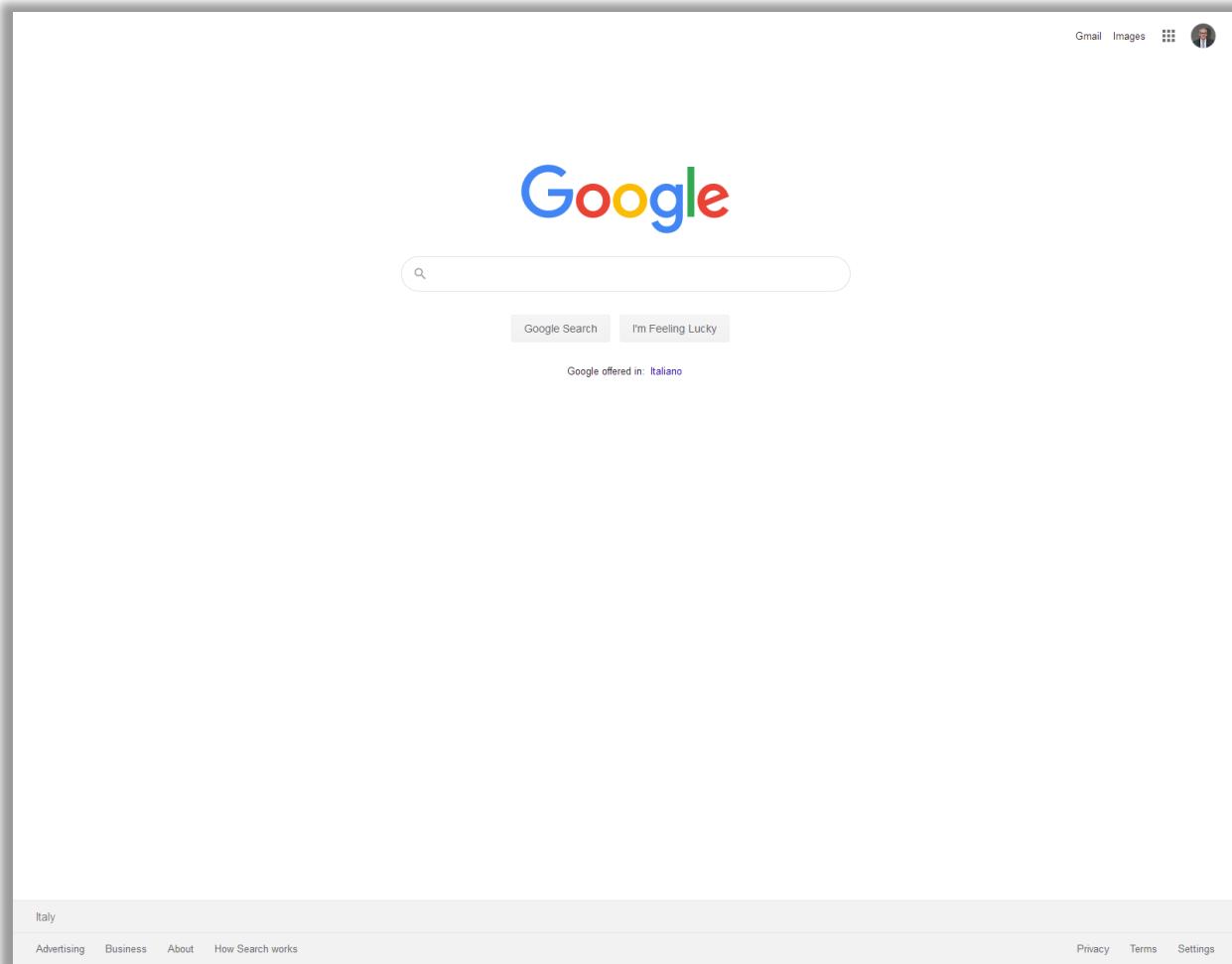
Recognizable page structure



Key ingredients



Recognizable page structure



Recognizable page structure

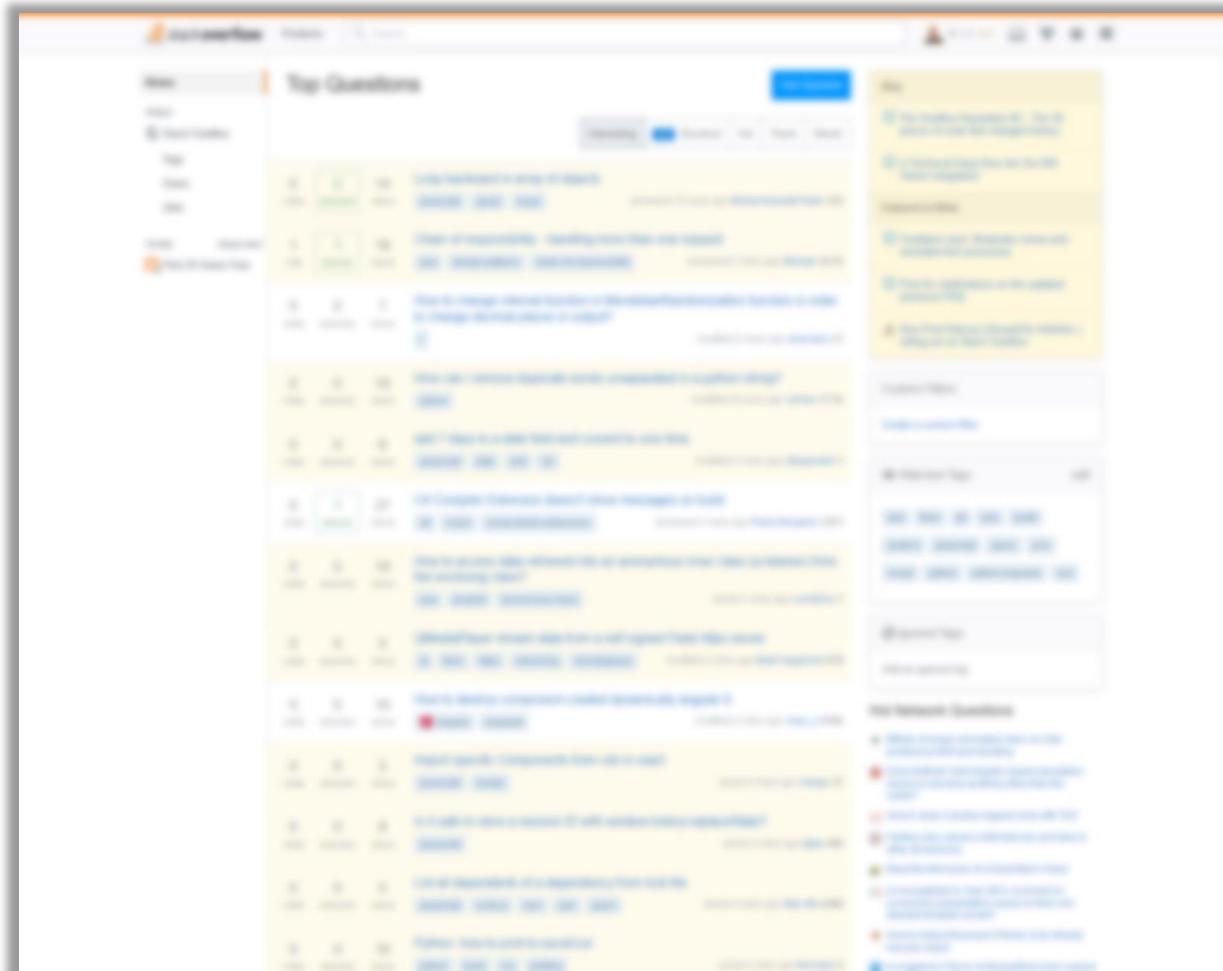


Recognizable page structure

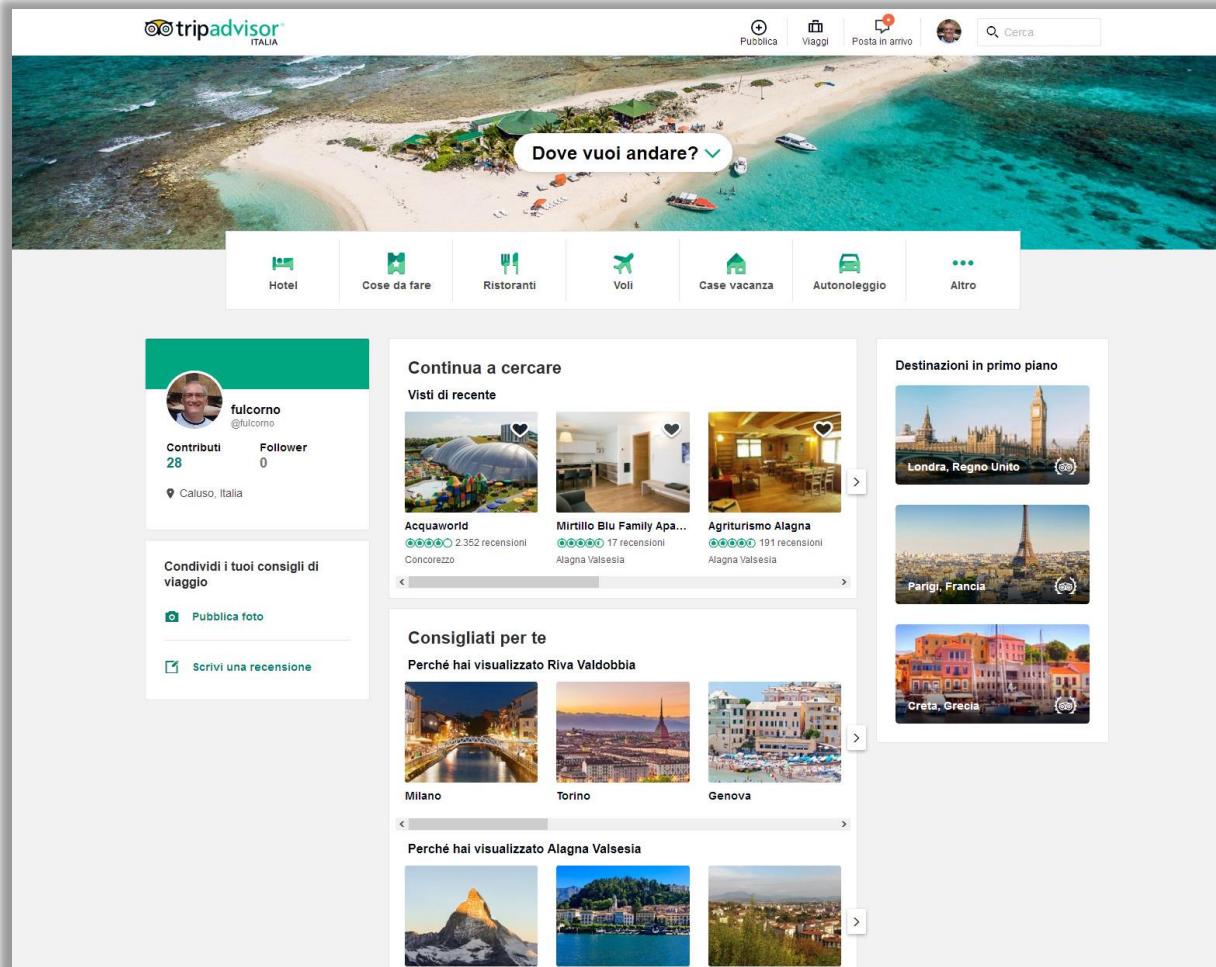
The screenshot shows the Stack Overflow 'Top Questions' page. The main content area displays a list of ten questions, each with a title, vote count, answer count, view count, tags, and a brief description. To the right of the main content are several sidebar panels:

- Blog**: Lists recent blog posts: "The Overflow Newsletter #3 – The 36 pieces of code that changed history", "A Technical Deep Dive into Our MS Teams Integration", and "Feedback post: Moderator review and reinstatement processes".
- Featured on Meta**: Lists a post about "Post for clarifications on the updated pronouns FAQ".
- New Post Notices**: Lists notices for "Closed/On Hold/etc." posts.
- Custom Filters**: A section for creating custom filters.
- Watched Tags**: A list of tags: ajax, flask, git, java, javafx, javascript, jquery, json, mysql, python, python-requests, rest.
- Ignored Tags**: A section for adding ignored tags.
- Hot Network Questions**: A list of ten questions from other Stack Exchange sites, each with a small icon and a brief description.

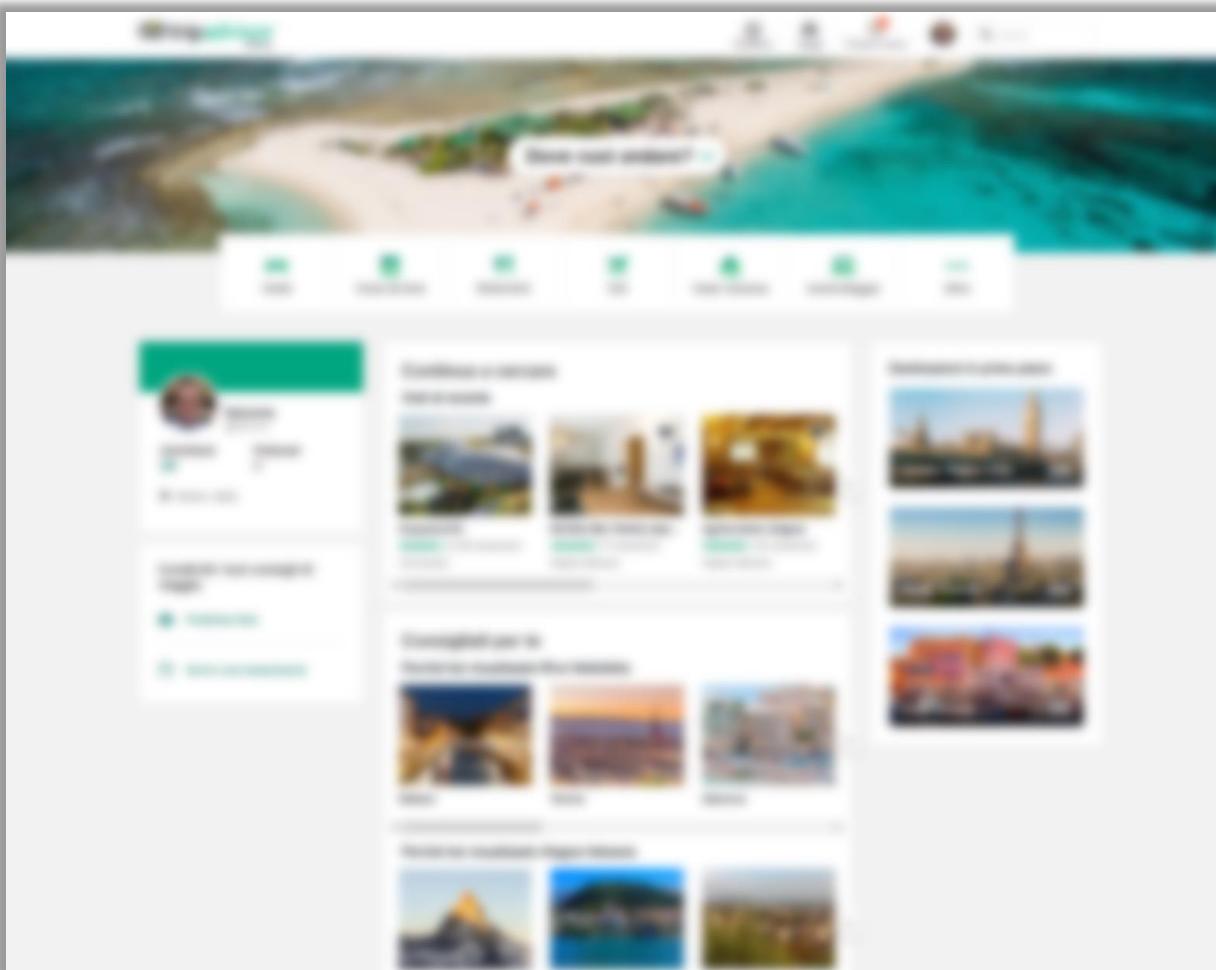
Recognizable page structure



Recognizable page structure



Recognizable page structure



‘Gestalt’ principles

Hints from the psychology of Shapes and of Representation

Gestalt principles

- Laws from 1920s' psychology: how humans typically see objects by grouping similar elements, recognizing patterns and simplifying complex images
- Designers use these to engage users via powerful -yet natural- “tricks” of perspective and best practice design standards
- “*The whole is other than the sum of the parts*” - Kurt Koffka



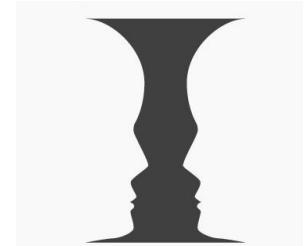
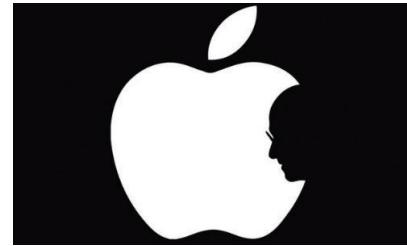
<https://www.interaction-design.org/literature/topics/gestalt-principles>

<https://www.usertesting.com/blog/gestalt-principles/>

Some Gestalt principles

- **Figure/Ground:** Disliking uncertainty, we look for solid, stable items. Foreground catches the eye first
- **Closure:** Preferring complete shapes, we automatically fill in gaps to perceive a complete image; we see the whole first
- **Common Region:** We group elements that are in the same closed region
- **Element Connectedness:** We group elements linked by other elements
- **Continuation:** We follow and “flow with” lines
- **Proximity (Emergence):** We group closer-together elements, separating them from those farther apart.
- **Good Form:** We differentiate elements that are similar in color, form, pattern, etc. and cluster them together
- **Meaningfulness (Familiarity):** We group elements if they form a meaningful or personally relevant image.
- **Prägnanz:** We perceive complex images as simple ones.
- **Convexity:** We perceive convex shapes ahead of concave ones
- **Regularity:** Sorting items, we tend to group some into larger shapes, and connect elements that form a pattern.
- **Similarity (Invariance):** We seek differences and similarities in an image and link similar elements.
- **Symmetry:** We seek balance and order in designs, struggling to do so if they aren’t readily apparent.
- **Common Fate:** We group elements that move in the same direction
- **Synchrony:** We group static visual elements that appear at the same time.

Examples: figure-ground



Basecamp 3

Version 3 is all new for 2010!

Working with other people? Struggling to keep everyone on the same page?

DID WE GET THAT DONE YET?
WHEN IS THIS DUE?
NO ONE TOLD ME THAT!
WHO SENT THIS TO THE CLIENT?
THIS IS EXHAUSTING!

WAIT, WHO MADE THAT DECISION?
WHERE DO I PUT THAT?
THIS IS EXHAUSTING!

Sign up now for free below
Just last week, 10,772 companies got started with Basecamp 3!

Sign up using Google

Or, sign up with your email

Your Name: Julie Appleseed

Your Email: julie@widgetco.com

Company/Organization: Widget, Co.

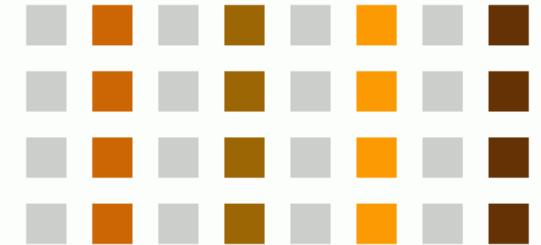
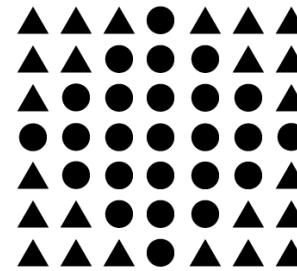
SYNDICATES STARTUPS FUNDS STARTUP JOBS RECRUITING MORE ▾

SEARCH Join Log In

Find a Startup Job Post a Job Raise Money Online Invest in Startups

AngelList Where the world meets startups

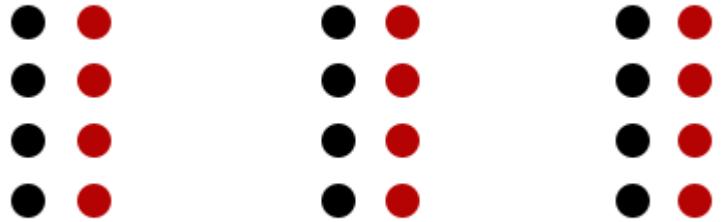
Examples: similarity



The GitHub sign-up page features a dark background with a grid of code snippets. At the top, there's a search bar and navigation links for Explore, Features, Enterprise, Pricing, Sign up, and Sign in. The main area has fields for Pick a username, Your email, and Create a password, with a note about character limits. A large green 'Sign up for GitHub' button is prominent. Below it, a terms of service agreement is shown. A blue banner at the bottom asks 'Want to use GitHub on your servers?'. The GitHub logo is in the top left corner.

The LA STAMPA news website has a light-colored header with a menu, newsletter link, and social media icons. The main title 'LA STAMPA' is in large bold letters. Below the header, there are several news articles with small images and titles. One article about ArcelorMittal is highlighted with a larger image of the company's logo on a building. Other articles include one about Abu Simbel and another about climate change in the Alps. The layout is clean with a mix of text and images.

Examples: proximity



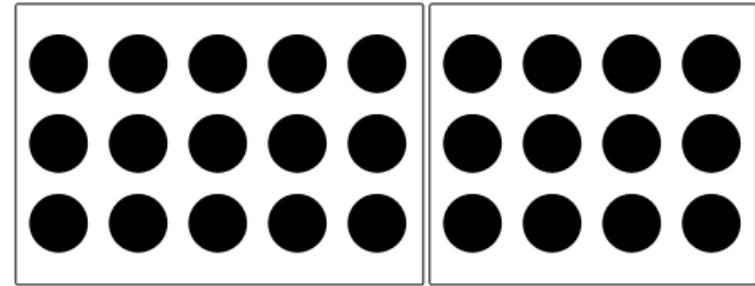
A screenshot of the Walmart website homepage. At the top, there's a navigation bar with the Walmart logo, a search bar, and account information. Below it, a banner says "Save big in every department". The main content area features a grid of product categories: Electronics (iPad), Home (coffee maker), Exercise & Fitness (woman on treadmill), Health (vitamin bottle), Clothing & Jewelry (pink top), Furniture (blue armchair). Below this, there are more categories: Cold Weather Prep (person in snow), Tax Preparation (TurboTax logo), Auto & Tires (tire), Office Supplies (black bin), Home Improvement (drill), and Outdoor Sports (tent). At the bottom, there are additional banners for Jackson Hewitt Tax Services and a blue square.

A screenshot of the VICE news website homepage. At the top, there's a navigation bar with the VICE logo and links for WATCH, SECTIONS, PHOTOS, MAGAZINE, TOPICS, CITY GUIDES, ELECTION 2016, OPINION, and MORE. Below the navigation, there are several news cards: 1. "Medical Marijuana Users in Canada Can Legally Grow Their Own Weed Now" by Marisa Kishchenko (Feb 24, 2016) - image of a cannabis plant. 2. "The Women Who Love Ted Cruz" by Josh Antweiler (Feb 24, 2016) - image of two women kissing. 3. "How Donald Trump Won Nevada's Cliven Bundy Vote" by Grace Myler (Feb 24, 2016) - image of Donald Trump wearing a cowboy hat. Other cards include "STUFF" and "MOTHERBOARD" sections.



<https://www.usertesting.com/blog/gestalt-principles/>

Examples: common region



A screenshot of a Pinterest search results page for the term "architecture". The interface includes a header with a search bar and user profile information. Below the header, there are several image cards. One card for "Grotto Sauna by Partisans, Toronto" has a caption in Spanish: "Me encanta la idea de jardín de este Spa. Parece que las plantas fueran..." (I love the idea of this garden spa. It looks like the plants were...). Another card for "Maple" shows a handmade real wood macbook skin cover. A third card for "Namian Spa / MIA Design Studio" includes a caption in Spanish: "Ayelen Cayarga pinteramente" (Ayelen Cayarga pinteramente).

A screenshot of a Houzz article titled "11 Things You Didn't Think You Could Fit Into a Small Bedroom". The article features a thumbnail image of a small bedroom with blue walls and a curved bed. The text describes how clever designers have found ways to fit storage, murals, and chandeliers into tight sleeping spaces. The URL "WWW.HOUZZ.COM" is provided at the bottom. The post has 157 likes and 33 shares. A comment from "Frankie Sez" says "Really great ideas for the 'minimalist' in some of us...". Another comment from "Country Mountain Homes" says "Space for books is a must!". There is a link to "View 2 more comments".



Examples: continuity

Customers Who Bought This Item Also Bought

The screenshot shows a row of five book covers with their titles, authors, and brief descriptions. The books are: 'CROSSING THE CHASM' by Geoffrey A. Moore, 'THE LEAN STARTUP' by Eric Ries, 'The Innovator's Dilemma' by Clayton M. Christensen, 'THE INNOVATOR'S SOLUTION' by Clayton M. Christensen, and 'How Will You Measure Your Life?' by Clayton M. Christensen.

Book Title	Author	Description	Rating	Price
CROSSING THE CHASM	Geoffrey A. Moore	Marketing and Selling Disruptive Products	★★★★★ 72	\$12.35 ✓Prime
THE LEAN STARTUP	Eric Ries	How Today's Entrepreneurs Use Continuous Innovation to	★★★★★ 1,062	\$16.66 ✓Prime
The Innovator's Dilemma	Clayton M. Christensen	The Revolutionary Book That Will Change the Way	★★★★★ 209	\$10.06 ✓Prime
THE INNOVATOR'S SOLUTION	Clayton M. Christensen	Creating and Sustaining Successful Growth	★★★★★ 22	\$18.33 ✓Prime
How Will You Measure Your Life?	Clayton M. Christensen	How Will You Measure Your Life?	★★★★★ 583	\$15.86 ✓Prime

Page 1 of 20



Step 1

Choose your meals, drinks and treats from our daily rotating menu.



Step 2

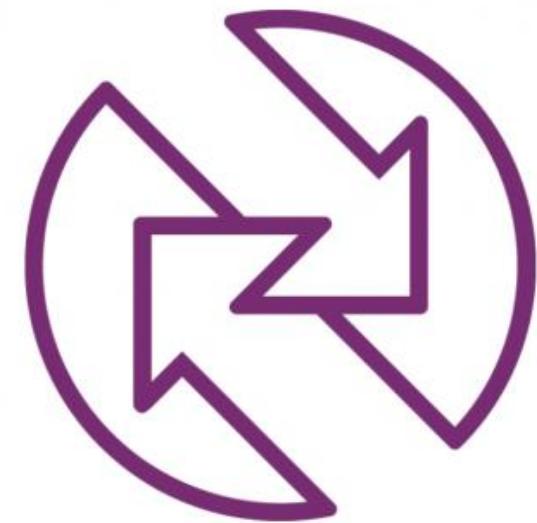
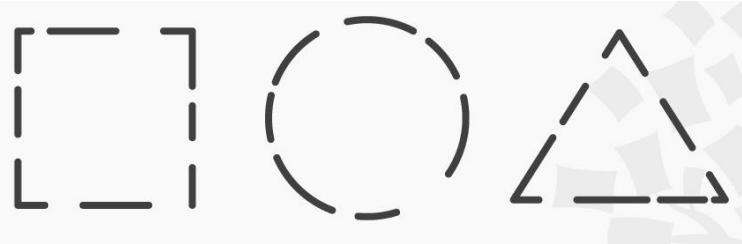
Our friendly servers organize your food for delivery - hot and ready to eat!



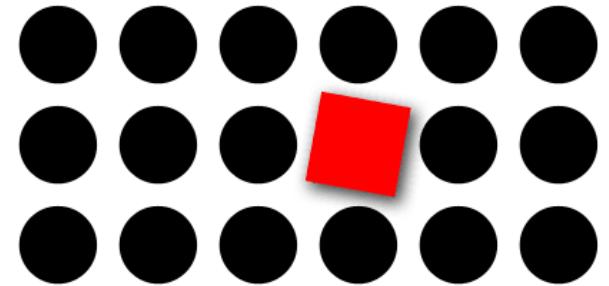
Step 3

Your meal arrives in around 20 minutes - like a home-cooked meal without the effort!

Examples: closure



Examples: focal point



The Twilio homepage features a dark background image of a busy street scene. At the top, the Twilio logo is on the left, followed by navigation links: PRODUCTS & PRICING, USE CASES, API & DOCS, NOT A DEVELOPER?, SIGN UP, and LOG IN. Below the navigation, the main headline reads "BUILD APPS THAT COMMUNICATE WITH EVERYONE IN THE WORLD". A sub-headline below it says "A Messaging, Voice, Video and Authentication API for every application". At the bottom, there are two buttons: "See Use Cases" and "Get a free API key".

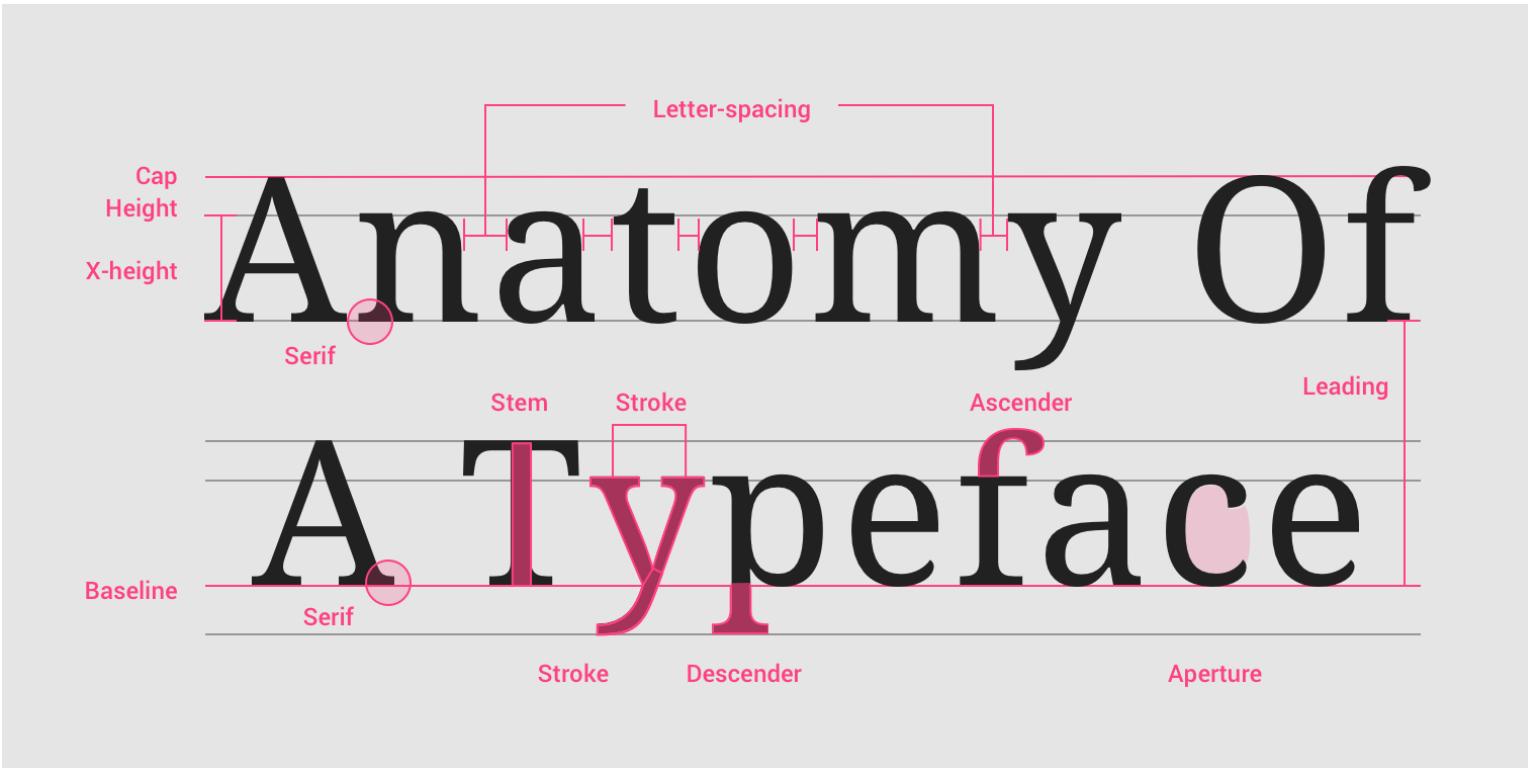
The Instacart homepage features a dark background image of a person holding a grocery bag filled with groceries. Overlaid on the image is a white rectangular form containing the Instacart logo and the text "Groceries delivered in 1 hour". It also includes a "Enter Zip Code" input field, a green "Find Stores" button, and a link "Already have an account? Log In". At the bottom of the form, there is a small icon and the text "FREE delivery on your first order*".

Typography

Property of text

Characteristics of text

- Point Size
- Leading
- Cap Height, x-height
- Ascenders, Descenders
- Weight
- Serifs



<https://material.io/design/typography/understanding-typography.html>

Example: Material Design type scale

A combination of 13 styles that are supported by the type system

Reusable categories of text, each with an intended application and meaning

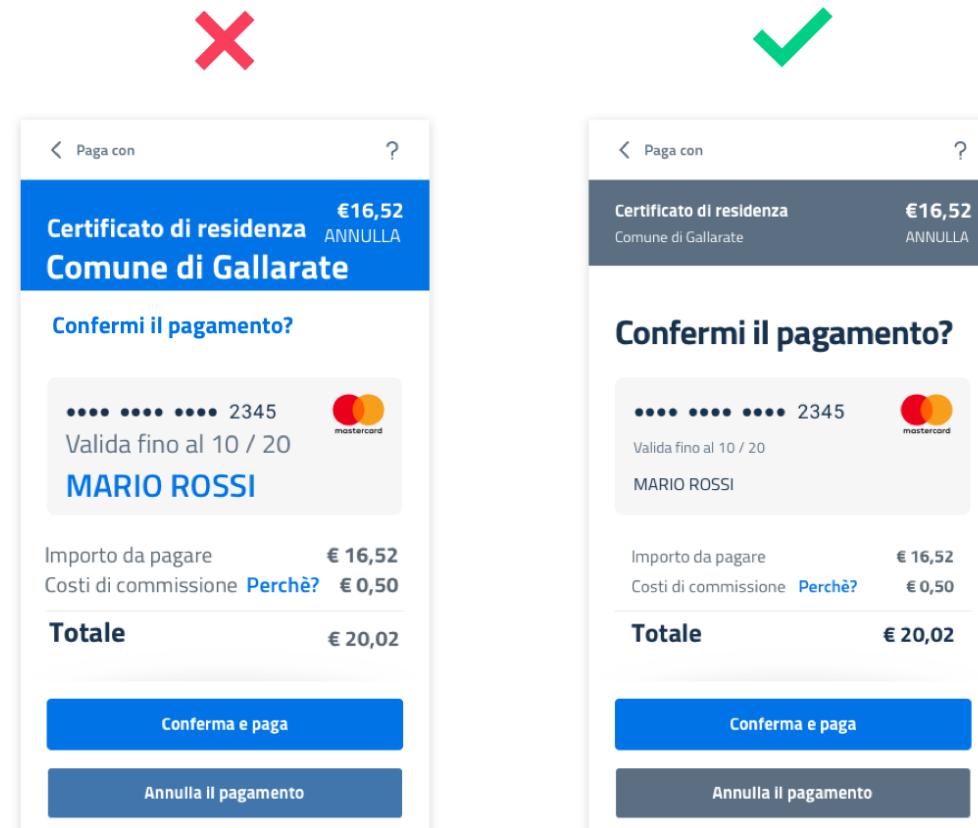
Scale Category	Typeface	Font	Size	Case	Letter spacing
H1	Roboto	Light	96	Sentence	-1.5
H2	Roboto	Light	60	Sentence	-0.5
H3	Roboto	Regular	48	Sentence	0
H4	Roboto	Regular	34	Sentence	0.25
H5	Roboto	Regular	24	Sentence	0
H6	Roboto	Medium	20	Sentence	0.15
Subtitle 1	Roboto	Regular	16	Sentence	0.15
Subtitle 2	Roboto	Medium	14	Sentence	0.1
Body 1	Roboto	Regular	16	Sentence	0.5
Body 2	Roboto	Regular	14	Sentence	0.25
BUTTON	Roboto	Medium	14	All caps	1.25
Caption	Roboto	Regular	12	Sentence	0.4
OVERLINE	Roboto	Regular	10	All caps	1.5

<https://material.io/design/typography/the-type-system.html#type-scale>

Example: Text conveys hierarchy

Font size, color and spacing define a hierarchy of visibility and attention

The visual hierarchy should match the relative importance of the information content



<https://docs.italia.it/italia/designers-italia/design-linee-guida-docs/it/stabile/doc/user-interface/il-disegno-di-un-interfaccia-e-lo-ui-kit.html>

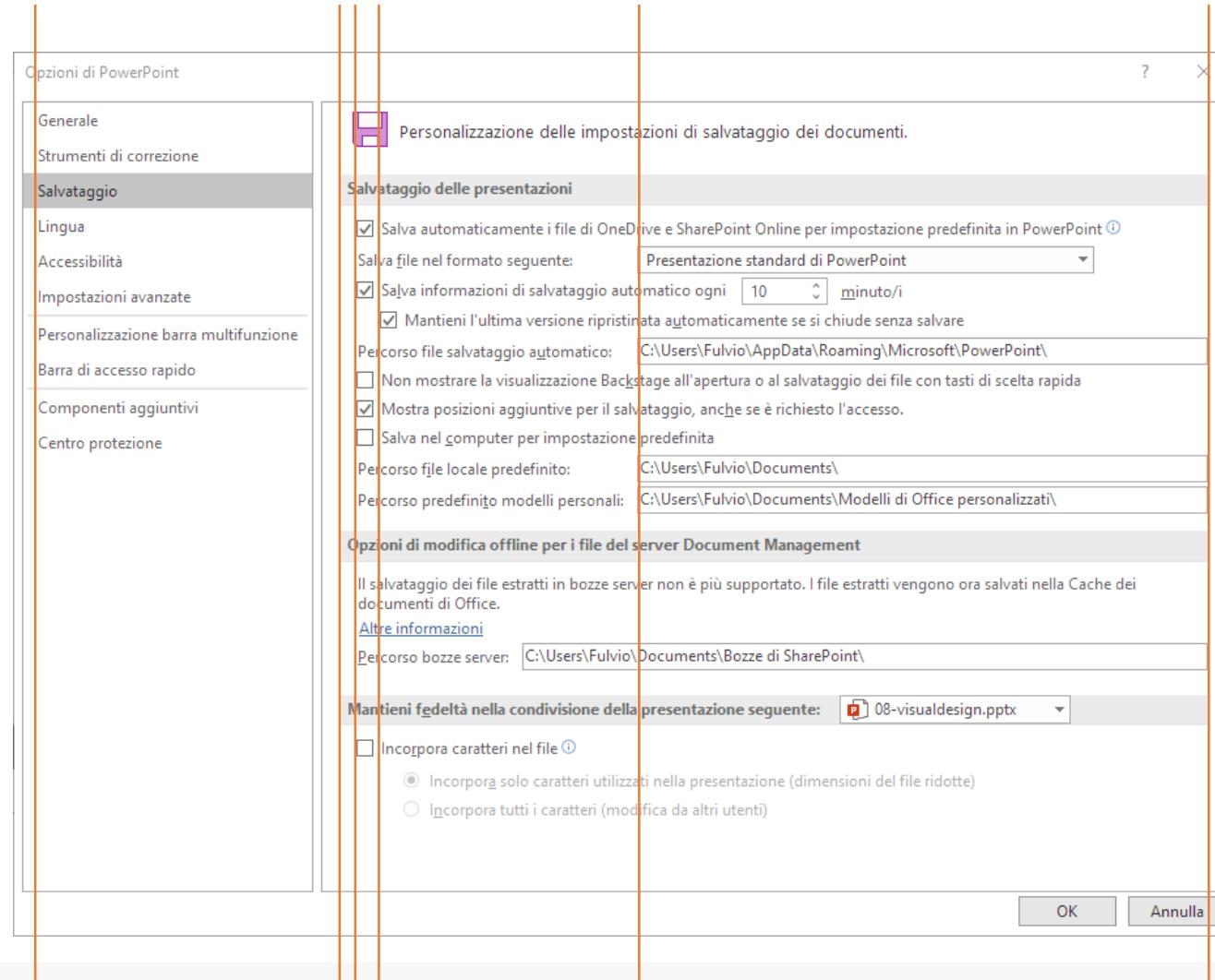
Grids and Alignment

Exploiting grouping and alignment to convey content, at different levels

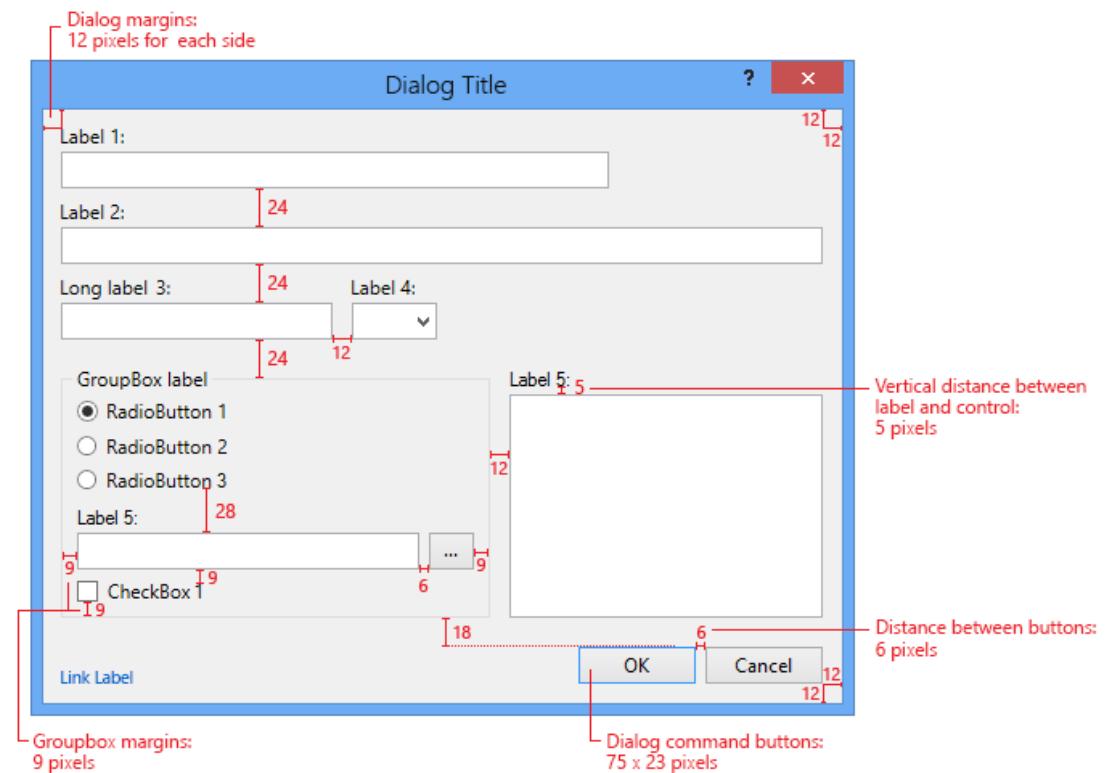
Alignment

- Invisible lines that run through the interface and “attract” the left- or right-edge of a widget control
 - Vertical
 - Horizontal

Example

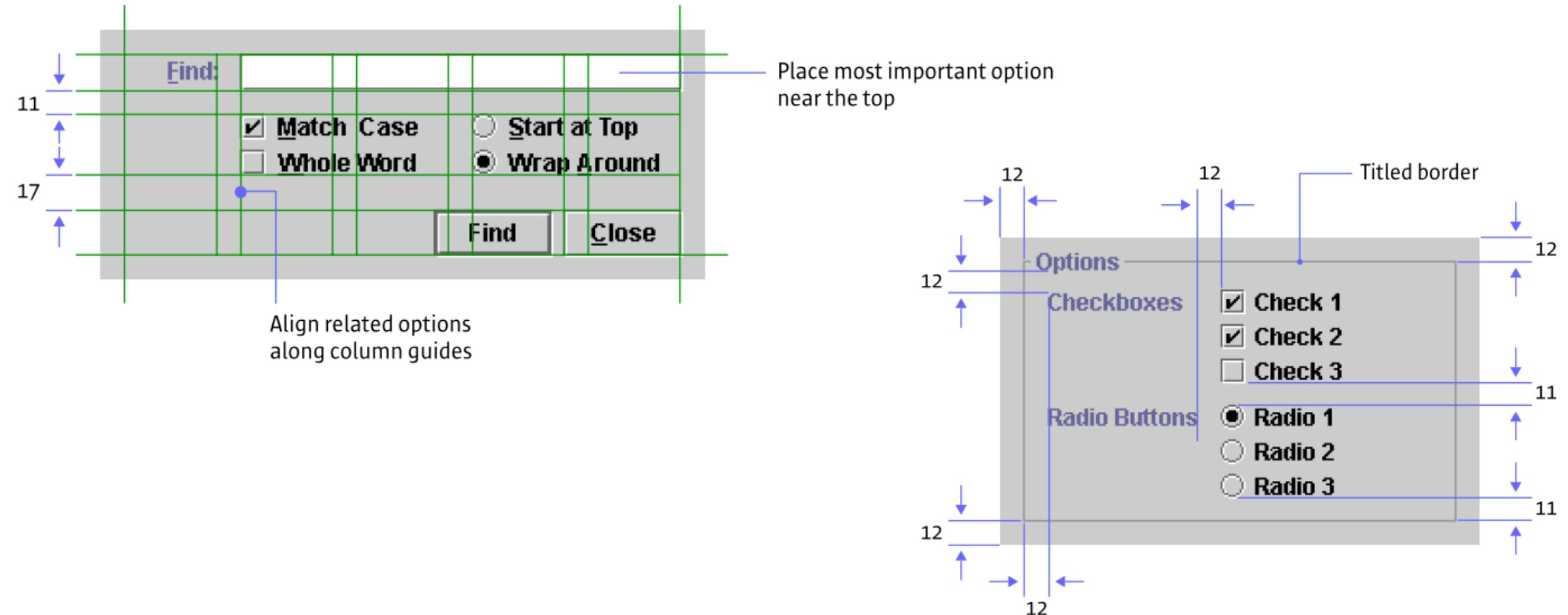


Examples



<https://docs.microsoft.com/en-us/visualstudio/extensibility/ux-guidelines/layout-for-visual-studio?view=vs-2019>

Examples

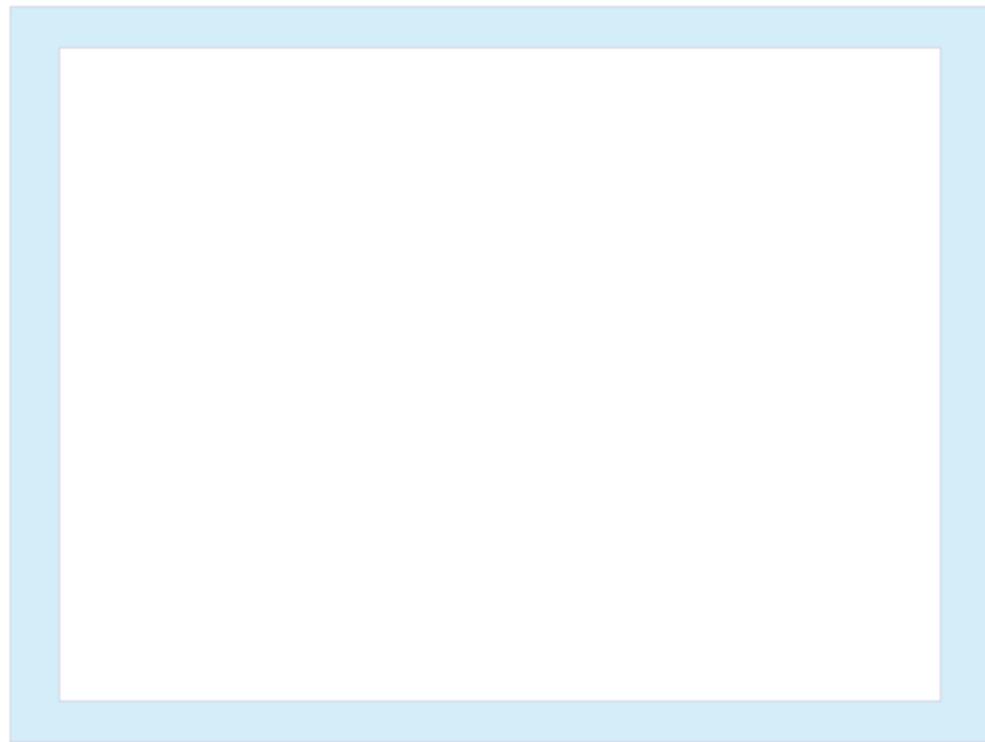


Grid Layout Ingredients

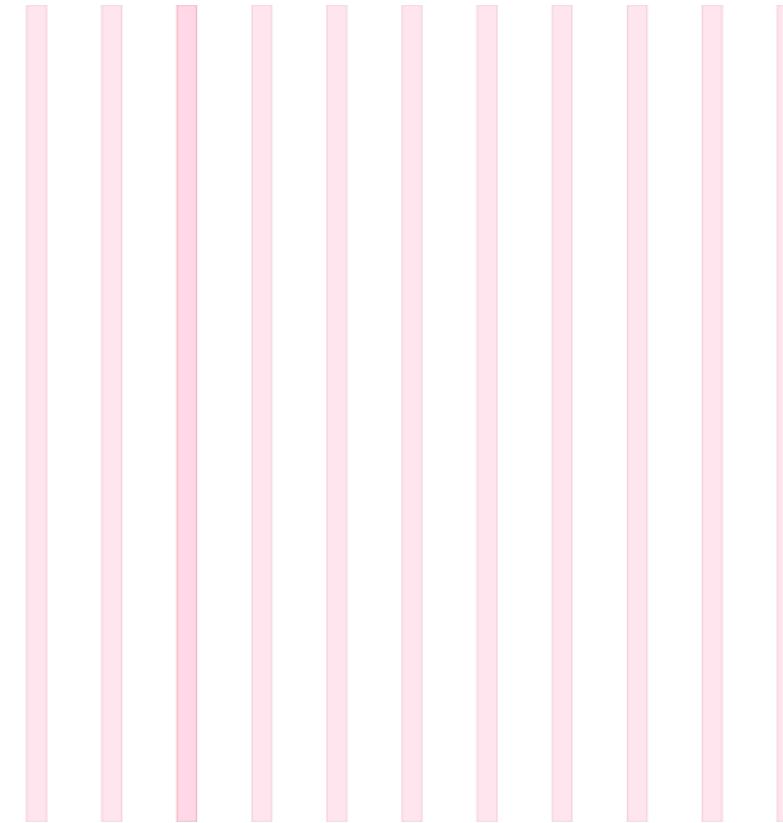
- **Guides:** The edge which you choose to align content with
- **Column:** A vertical division of content
- **Row:** A horizontal division of content
- **Margins:** The area surrounding your content
- **Gutters:** The margins between columns
- **Hang-line:** A horizontal guide to align content to hang off of
- **Baseline:** The horizontal guide for an element to sit on top of
- **Rhythm:** Proportion systems that can help define the sizing frequency and spacing of each of the above elements.

Grid Layout Ingredients

Margins

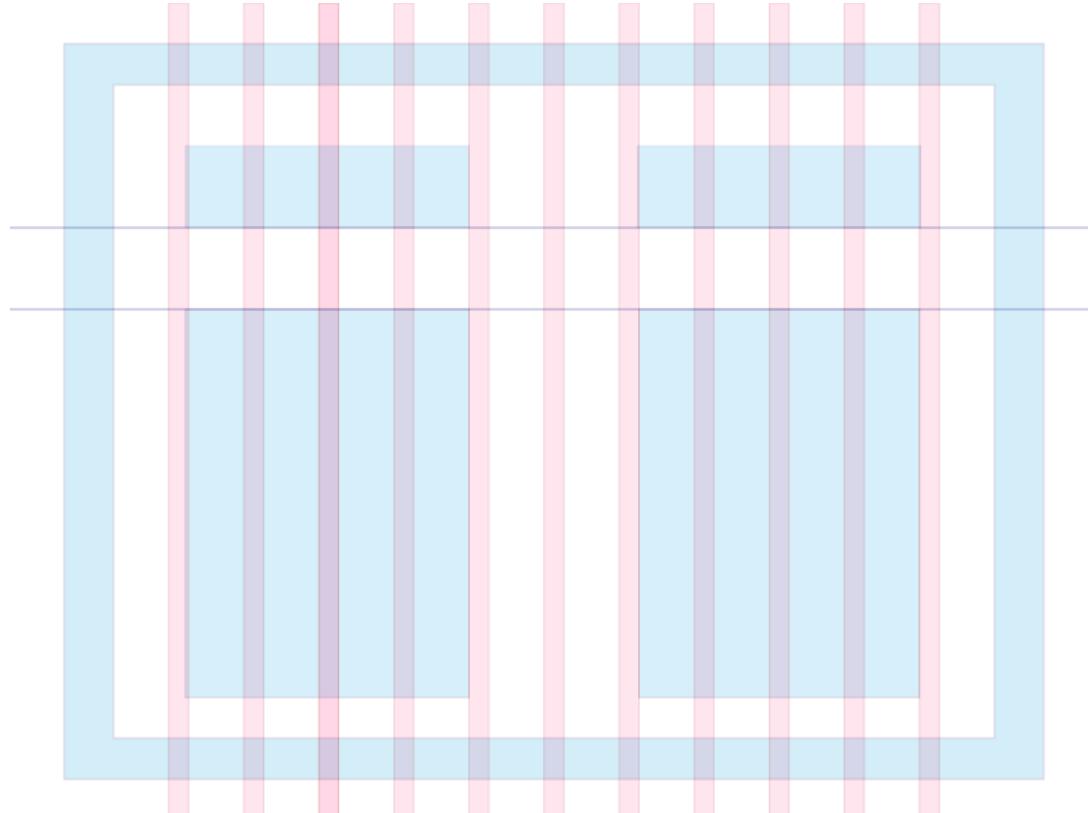


Columns & Gutters



Grid Layout Ingredients

Hanglines and Baselines

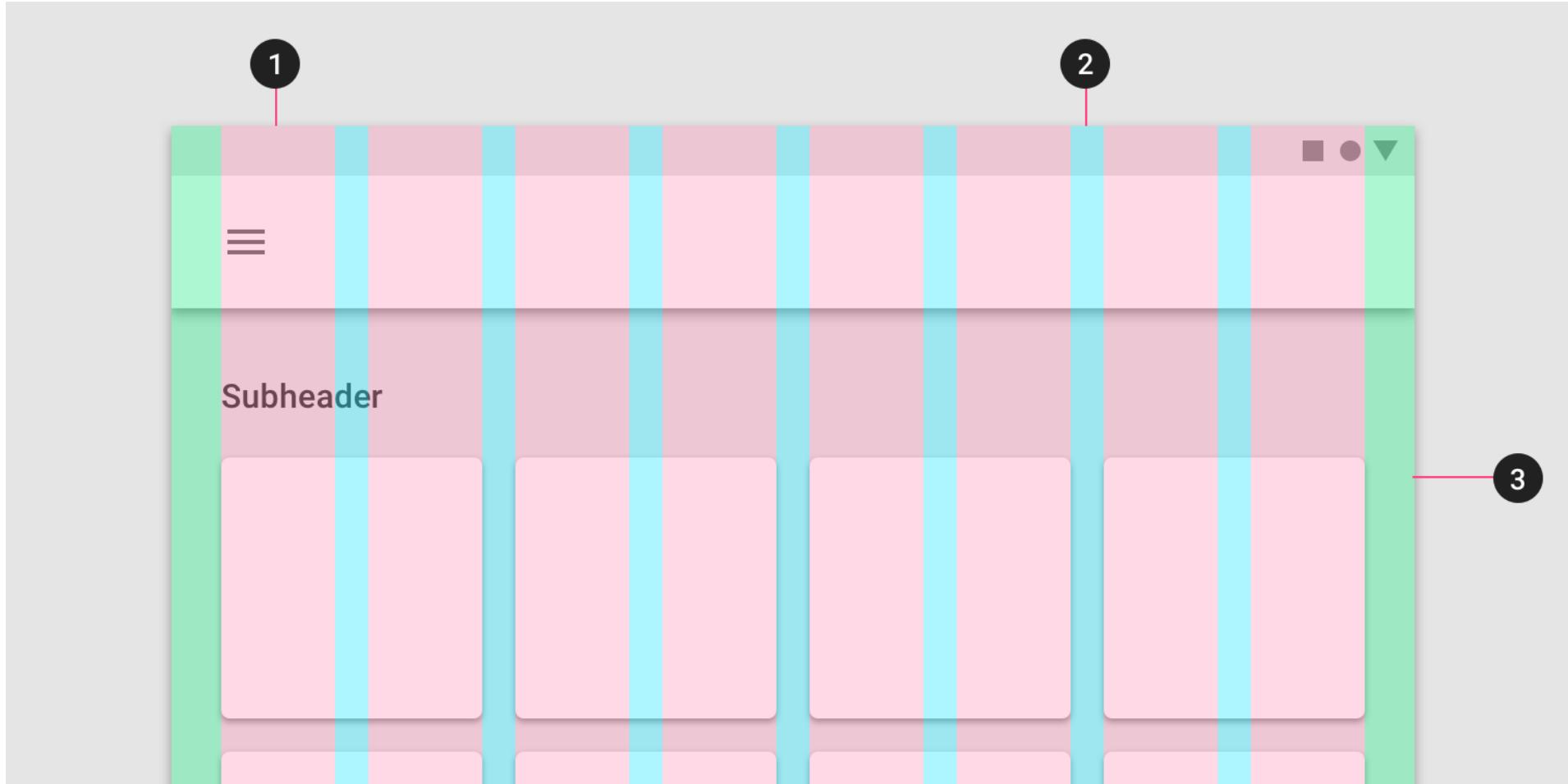


Baseline Grids



Example Grid-based layout

1. Columns
2. Gutters
3. Margins



Example: Bootstrap grid

Always 12 columns in total

May choose to span a group of columns

Each column is tagged according to the screen size:

- xs (phones - <768px)
- sm (tablets - >=768px)
- md (small laptops - >=992px)
- lg (laptops and desktops - >1200px)

span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1	span 1				
span 4				span 4				span 4							
span 4				span 8											
span 6						span 6									
span 12															

Responsive grid layout

The image displays four screenshots of a website's homepage, illustrating the use of Bootstrap's responsive grid system. The website has a header with 'Tutorial Republic' and navigation links for Home, Services, About, Contact, Register, and Login. Below the header is a main title 'Learn to Create Websites' and a brief introduction.

The content area is organized into a grid:

- HTML:** Described as the standard markup language for describing the structure of web pages. It includes a detailed description and a 'Learn More' button.
- CSS:** Described as the presentation layer of web pages. It includes a detailed description and a 'Learn More' button.
- JavaScript:** Described as the most popular client-side scripting language. It includes a detailed description and a 'Learn More' button.
- Bootstrap:** Described as a powerful front-end framework for faster and easier web development. It includes a detailed description and a 'Learn More' button.
- PHP:** Described as the most popular server-side scripting language. It includes a detailed description and a 'Learn More' button.
- SQL:** Described as a standard language for managing data in relational database management systems. It includes a detailed description and a 'Learn More' button.
- References:** A section containing frequently asked questions (FAQs) with a 'Learn More' button.
- FAQ:** A section containing frequently asked questions (FAQs) with a 'Learn More' button.

At the bottom of the page are copyright information ('Copyright © 2019 Tutorial Republic') and links for 'Terms of Use' and 'Privacy Policy'. A large yellow callout box highlights the 'HTML' section of the first screenshot.

```
<div class="row">
  <div class="col-md-6 col-lg-4 col-xl-3">
    <h2>HTML</h2>
    <p>...</p>
    <p><a href="..." class="btn btn-success">...</a></p>
  </div>
```

<https://www.tutorialrepublic.com/twitter-bootstrap-tutorial/bootstrap-responsive-layout.php>

Other grid systems

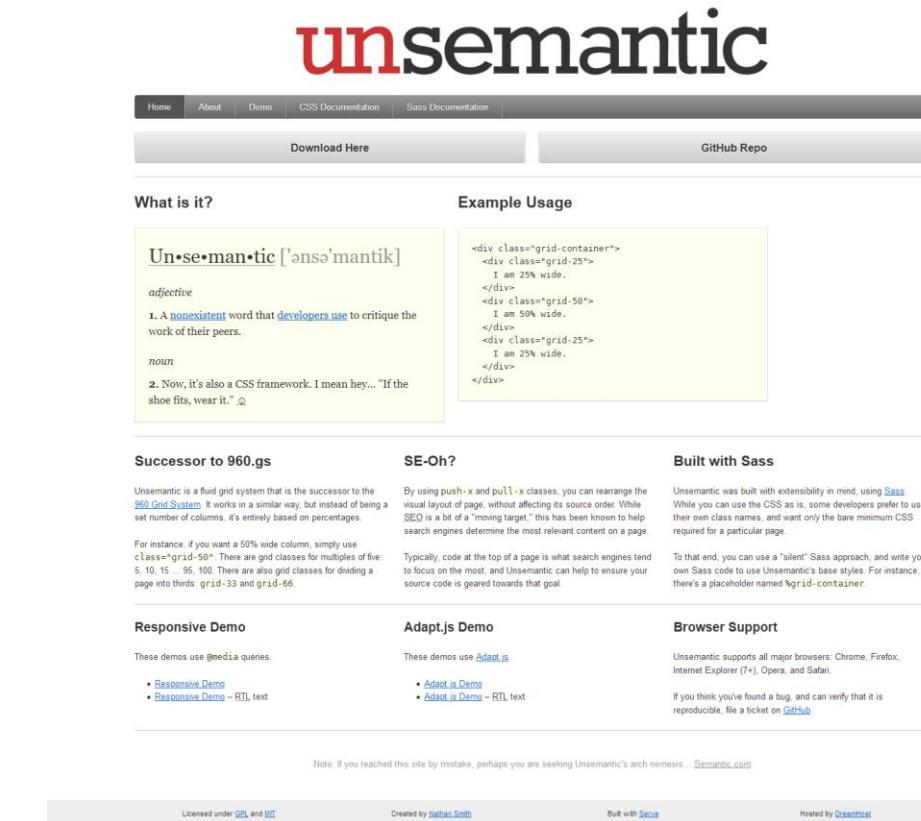
960 grid (fixed width, 12 or 16 col)



The screenshot shows the homepage of the 960 Grid System. At the top, there's a navigation bar with links for Twitter, Download - CSS, sketch paper, and templates, and a GitHub repository link. Below the navigation is a large "960 GRID SYSTEM" logo. A prominent "Big ol' DOWNLOAD button :)" is centered below the logo. To the left of the button is a "changelog" link and an "INTERVIEW ABOUT 960.gs" link. To the right are "VIEW SLIDES ABOUT THE 960 GRID SYSTEM", "ADAPT.JS - ADAPTIVE CSS", "CUSTOM CSS GENERATOR", and "GRID OVERLAY BOOKMARK". The main content area is divided into three columns: "Essence", "Dimensions", and "Purpose". The "Dimensions" section contains detailed information about the 12-column and 16-column grid systems, including pixel measurements and margin calculations. The "Purpose" section explains the benefits of the grid system for rapid prototyping and production environments. Below these sections are "More Columns" and "Source Order" sections, which discuss alternative grid configurations and how elements are rearranged using CSS classes like "push" and "pull". At the bottom, there are two examples of websites using the 960 grid: "Sony Music — 16 col" and "Drupal — 12 col".

<https://960.gs/>

Unsemantic (responsive, based on %)



The screenshot shows the homepage of the Unsemantic website. The header features the word "unsemantic" in a large, bold, red and black sans-serif font. Below the header is a navigation bar with links for Home, About, Demo, CSS Documentation, and Sass Documentation. There are also "Download Here" and "GitHub Repo" buttons. The main content area is divided into two main sections: "What is it?" and "Example Usage". The "What is it?" section defines "Un•se•man•tic" as an adjective and a nonexistent word used by developers to critique their peers. It also describes it as a CSS framework. The "Example Usage" section shows a snippet of CSS code for a grid container with 12 columns, each 25% wide. The "Successor to 960.gs" section discusses Unsemantic's role as a successor to the 960 Grid System, emphasizing its responsive nature and use of percentages. The "SE-Oh?" section provides a brief history of the project. The "Built with Sass" section notes that Unsemantic is built with extensibility in mind, using Sass. The "Responsive Demo" section shows a media query example. The "Adapt.js Demo" section lists responsive demo links. The "Browser Support" section states that Unsemantic supports all major browsers. The footer includes a note about being the arch nemesis of Semantic, links to GitHub and Creative Commons, and a copyright notice.

<https://unsemantic.com/>

Grid structure

Main body:
Mix of 2x and 3x
columns

Alternating row
types



Title area outside the grid

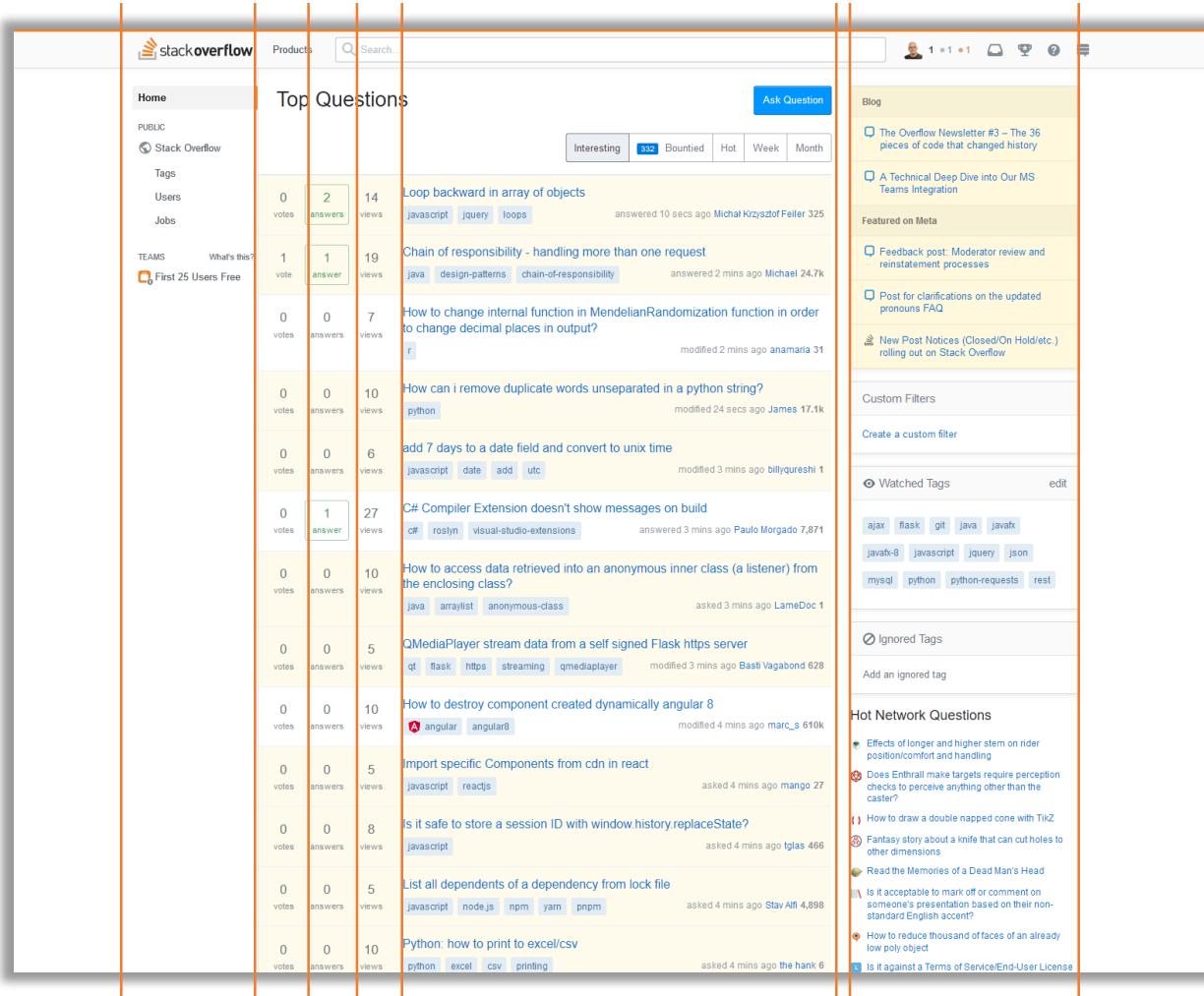
Right column for other types of articles

Grid structure

Main content
(center, wide)

Navigation
(left, smaller)

Related content
(right, smaller)



Example

Software								Top
1° anno								
Periodo	Codice	Lingua	Insegnamento	Crediti	Docente	Note	Vincoli	
1	01PDW0V	IT	<u>Information systems</u> ING-INF/05 (6)	6	M. Morisio	View		
1	02GOLOV	IT	<u>Architetture dei sistemi di elaborazione</u>	10	P. Bernardi E. Sanchez Sanchez	View		
1	02LSEOV	IT	<u>Computer architectures</u> Oppure ING-INF/05 (10)	10	P. Montuschi	View		
1	01SQJ0V	IT	<u>Data Science and Database Technology</u> ING-INF/05 (8)	8	S. Chiusano	View		
1	01SQM0V	IT	<u>Data Science e Tecnologie per le Basi di Dati</u> ING-INF/05 (8)	8	E. Baralis	View		
1	01OTW0V	IT	<u>Computer network technologies and services</u> ING-INF/05 (6)	6	M. Baldi	View		
1	02KPN0V	IT	<u>Tecnologie e servizi di rete</u> ING-INF/05 (6)	6	G. Marchetto	View		
2	02JEU0V	IT	<u>Formal languages and compilers</u> ING-INF/05 (6)	6	R. Sisto	View		
2	05BID0V	IT	<u>Ingegneria del software</u> ING-INF/05 (8)	8	G. Bruno	View		
2	04GSPOV	IT	<u>Software engineering</u> ING-INF/05 (8)	8	M. Morisio	View		
2	01UDFOV	IT	<u>Applicazioni Web I</u> ING-INF/05 (6)	6	E. Masala	View		
2	01TXY0V	IT	<u>Web Applications I</u> ING-INF/05 (6)	6	F. Cormo	View		
2	02GRSOV	IT	<u>Programmazione di sistemi</u> ING-INF/05 (10)	10	G. Cabodi	View		
2	01NYH0V	IT	<u>System and device programming</u> ING-INF/05 (10)	10	S. Quer	View		
2° anno								
Periodo	Codice	Lingua	Insegnamento	Crediti	Docente	Note	Vincoli	
1	01TYMOV	IT	<u>Insegnamento a scelta 1</u> <u>Information systems security</u> ING-INF/05 (6)	6		View		
1			Oppure					
1	01UDU0V	IT	<u>Sicurezza dei sistemi informativi</u> ING-INF/05 (6)	6		View		
1	01SQNOV	IT	<u>Software Engineering II</u> ING-INF/05 (6)	6		View		
1,2	01TYDOV	IT	<u>Crediti liberi</u>	6				
1,2	29EBHOV	IT	<u>Tesi</u>	30				
2			<u>Insegnamento a scelta 2</u>	6				
Insegnamento a scelta 1								
Periodo	Codice	Lingua	Insegnamento	Crediti	Docente	Note	Vincoli	
1	01TYDOV	IT	<u>Cloud Computing</u> ING-INF/05 (6)	6		View		
1	01PDC0V	IT	<u>Digital control technologies and architectures</u> ING-INF/04 (6)	6		View		
1	01TXZ0V	IT	<u>Distributed systems programming</u> ING-INF/05 (6)	6		View	Si	
1	01NWPOV	IT	<u>Elaborazione dell'audio digitale</u> ING-INF/05 (6)	6		View		
1	01UDGOV	IT	<u>Energy management for IoT</u> ING-INF/05 (6)	6		View	Si	
1	02JSK0V	IT	<u>Human Computer Interaction</u> ING-INF/05 (6)	6		View		
1	01SQJ0V	IT	<u>Machine Learning and Artificial Intelligence</u> ING-INF/05 (6)	6		View		
1	01PDX0V	IT	<u>Modern design of control systems</u> ING-INF/04 (6)	6		View		
1	01OUUV0V	IT	<u>Optimization methods and algorithms</u> MAT/09 (6)	6		View		
1	01CET0V	IT		6		View		

Example (2015 vs 2019)

Add an address

Full Name:

Address Line 1:
Street address, P.O. box, company name, c/o

Address line 2:
Apartment, suite, unit, building, floor, etc.

City:

State/Province/Region:

ZIP:

Country: United States ▾

Phone Number: Learn more

Optional Delivery Preferences ([What's this?](#))

Weekend Delivery: Select your preference ▾

Security Access Code:
For buildings or gated communities

Save & Add Payment Method **Save & Continue**

Il tuo account > I tuoi indirizzi > [Nuovo indirizzo](#)

Aggiungi un nuovo indirizzo

Oppure ritira i tuoi colli quando desideri, presso i nostri punti self-service. Per aggiungere un punto di ritiro o un Amazon Locker, clicca [qui](#).

Paese/Regione

Italia

Nome e cognome

Indirizzo

Via e numero civico

Scala, piano, interno ecc. (Opzionale)

Città

Provincia

Codice postale

Numero di telefono

Può essere utilizzato per aiutare consegna

Aggiungi istruzioni di consegna

Consegna nel fine settimana

Seleziona la tua disponibilità

Aggiungi indirizzo

Some guidelines

- When designing a template, start from the longest block of text
- Left-aligned text is (usually) faster to skim
- Alignment guides the eye and reduces clutter
 - Avoid slight misalignments
 - Patterns and deviations are “automatically” detected
 - Deviate from a pattern for strategic reasons
 - Use visual proximity and scale to convey semantic information

Colors

The most dangerous weapon in your toolset

Colors...

I live inside my car leasing website all day Monday to Friday 8am-6pm. I lease the cheapest PCP and contract hire cars in the UK! - I am Ling, accept no substitutes

LINGS CARS.com

Leader of the Pack - The UK's favorite car leasing website!

Contract hire cars from Ling Valentine. LINGS CARS is the UK's Favourite car leasing website - On 2016 I leased over £85 million in cars!

Stop

"Believe it or not, this Gateshead-based website, featuring Mrs Ling jiggling on her motorbike, is one of the biggest online drivers of car sales in Great Britain" 25th July 2017

4 News

Leader of the Pack

"[Ling Valentine is] Britain's **BIGGEST** individual seller of new cars."

BREXIT RISK FREE! February 2017 theguardian

CARS A-Z

ABARTH

124 Spider Convertible
595 Convertible
595 Hatchback
695 Convertible

ALFA ROMEO

Giulia Saloon
Giulietta
Stelvio Estate

AUDI

500 IDEAS!

NICOLE...PAPA!

MEGA-HATCH!

Fiat 500

1.2 Pop 8v (69bhp) (4 seats)
Hatchback 3dr 124cc Petrol Manual (5 Speed)

Rent New £127/mth including VAT

Renault Clio

0.9 TCE Iconic 12v (90bhp)
Hatchback 5dr 898cc Petrol Manual (5 Speed)

Rent New £152/mth including VAT

Citroen C3

1.2 PureTech 12v (83bhp) Flair
Hatchback 5dr Manual 1199cc

Rent New £157/mth including VAT

Car Leasing Online Service Response Times

Quote > Proposal > Order > Delivery

75 CUSTOMERS IN 'PROPOSAL'

Ling replies in... 0:03 07

129 CUSTOMERS IN 'ORDER'

Ling replies in... 0:05 03

1 DELIVERY TODAY

Ford Ka+ to Arthur ATTLEBOROUGH, NR17

21 DELIVERIES IN LAST WEEK

Renault Captur to Cath PONTERFRACT , WF81

Mercedes GLC Coupe to Bill BEDLINGTON, NE22

BMW 2 Series Convert... to Pingu DERBY, DE56

Nissan Qashqai to Arlene GLASGOW , G11

Volvo XC60 Estate to Saif MILTON KEYNES, MK8

Seat Leon to Ben BARNESLEY, S70

Skoda Kodiaq Estate to Hannah HAY-ON-WYE , HR3

Renault Clio to Paul MIDDLEBROUGH , TS7

Renault Clio to Paul MIDDLEBROUGH , TS7

Seat Arona to Steve LONDON, SE18

Seat Leon to Adam HATFIELD, AL10

Audi A3 Sportback to Chris WYMONDHAM , NR18

1 live inside my car leasing website all day Monday to Friday 8am-6pm. I lease the cheapest PCP and contract hire cars in the UK! - I am Ling, accept no substitutes

9-35 6-35 6-23 Petrol

13 year cheap car leasing

3 year cheap car leasing

129 CUSTOMERS IN 'ORDER'

Ling replies in... 0:05 03

Colors

- Be careful, don't exaggerate
- Design in grayscale, first
 - Ensure information is conveyed by text and layout
- When adding colors, try to conserve the same luminance of the grayscale design
- Assign meaning to color
- Use a limited and consistent palette and use slight variations

Example

The image displays two side-by-side screenshots of the Stack Overflow homepage, specifically the 'Top Questions' section. Both screenshots show the same list of questions, but the right one is a modified version where the 'Answers' column has been removed from the question cards.

Left Screenshot (Standard View):

- Top Questions:**
 - Loop backward in array of objects (2 answers, 14 views)
 - Chain of responsibility - handling more than one request (1 answer, 19 views)
 - How to change internal function in MendelianRandomization function in order to change decimal places in output? (0 answers, 7 views)
 - How can I remove duplicate words unseparated in a python string? (0 answers, 10 views)
 - add 7 days to a date field and convert to unix time (0 answers, 6 views)
 - C# Compiler Extension doesn't show messages on build (1 answer, 27 views)
 - How to access data retrieved into an anonymous inner class (a listener) from the enclosing class? (0 answers, 10 views)
 - QMediaPlayer stream data from a self signed Flask https server (0 answers, 5 views)
 - How to destroy component created dynamically angular 8 (0 answers, 10 views)
 - Import specific Components from cdn in react (0 answers, 5 views)
 - Is it safe to store a session ID with window.history.replaceState? (0 answers, 8 views)
 - List all dependents of a dependency from lock file (0 answers, 5 views)
 - Python: how to print to excel/csv (0 answers, 10 views)
- Blog:**
 - The Overflow Newsletter #3 – The 36 pieces of code that changed history
 - A Technical Deep Dive into Our MS Teams Integration
 - Feedback post: Moderator review and reinstatement processes
 - Post for clarifications on the updated pronouns FAQ
 - New Post Notices (Closed/On Hold/etc.) rolling out on Stack Overflow
- Custom Filters:** Create a custom filter
- Watched Tags:** edit
 - ajax, flask, git, java, javascript, jquery, json, mysql, python, python-requests, rest
- Ignored Tags:** Add an ignored tag
- Hot Network Questions:**
 - Effects of longer and higher stem on ride position/comfort and handling
 - Does Entrail make targets require perception checks to perceive anything other than the caster?
 - How to draw a double napped cone with TikZ
 - Fantasy story about a knife that can cut holes to other dimensions
 - Read the Memories of a Dead Man's Head
 - Is it acceptable to mark off or comment on someone's presentation based on their non-standard English accent?
 - How to reduce thousand of faces of an already low poly object
 - Is it against a Terms of Service/End-User License

Example

The screenshot shows the official website of Politecnico di Torino. At the top, there's a dark blue header with the university's logo and navigation links for ITA, ENG, Login, and search. Below the header, a banner for the "festival della TECNOLOGIA TORINO, 7-10 NOV 2019" is displayed, featuring a large graphic of vertical bars in shades of grey and red. The main content area below the banner includes sections for "EVENTI" (with two event cards), "AVVISI E SCADENZE" (with three announcement cards), and an "ACCESSO RAPIDO" sidebar with links like "Apply@PolTo", "Iscrizioni online", and various university services.

This screenshot shows the same website layout as the first one, but with a horizontal color transition effect applied. A dashed orange line starts at the top of the "festival della TECNOLOGIA" banner and extends across the entire width of the page, ending at the bottom of the "ACCESSO RAPIDO" sidebar. The rest of the page remains in its original dark blue state.

Palettes

Allegato 1

ABACO COLORI POLITO

BLU

PANTONE	CMYK
288 CVP	100/80/0/30
90%	90%
80%	80%
70%	70%
60%	60%
50%	50%

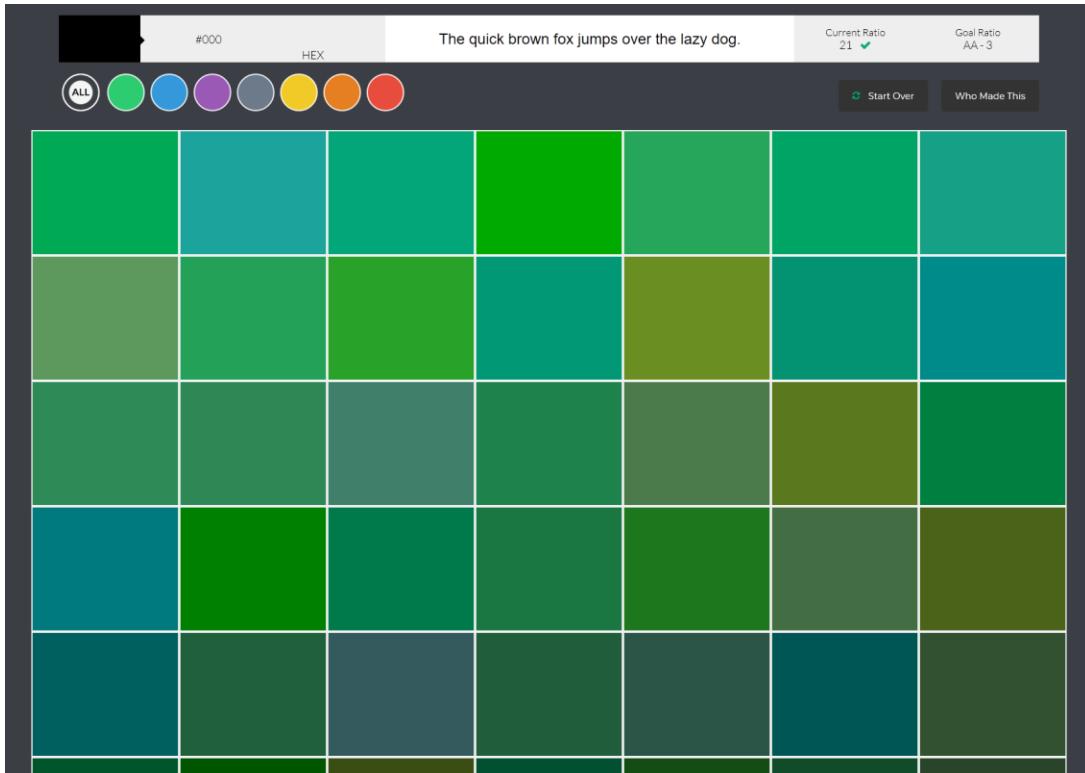
ARANCIO

PANTONE	CMYK
ORANGE 021	0/70/90/0
137 CVP	0/60/90/0
130 CVP	0/50/90/0
123 CVP	0/40/90/0
0/30/90/0	0/40/100/0
0/30/100/0	130 CVP

COMBINAZIONI

CMYK
100/80/0/30 0/70/100/0
100/80/0/30 0/60/100/0
100/80/0/30 0/50/100/0
100/80/0/30 0/40/100/0
100/80/0/30 0/30/100/0

Color contrast



Default type color On light			Default type color On dark		
Primary	#000000	1a	Primary	#FFFFFF	1a
Secondary	#000000	0.54a	Secondary	#FFFFFF	0.54a
Disabled	#000000	0.26a	Disabled	#FFFFFF	0.26a
Link	#3367D6	1a	Link	#7BAAF7	1a
Positive	#0B8043	1a	Positive	#57BB8A	1a
Negative	#C53929	1a	Negative	#E67C73	1a
Warning	#EA6100	1a	Warning	#F7CB4D	1a

Google Chrome Palette

<http://colorsafe.co/>

Reading and Navigating

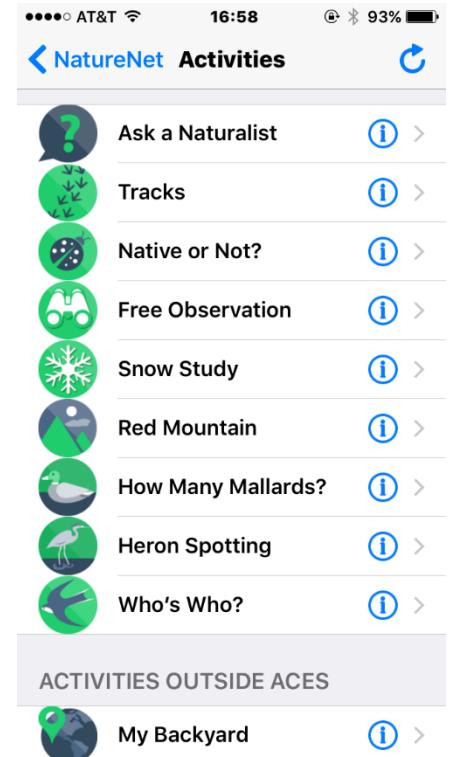
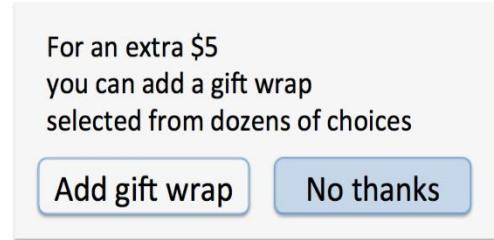
«Informavores» must quickly find the information they need

Navigation

- Enables users to know where they are and to steer themselves to their intended destination
- Is about getting work done (or having fun) through a series of actions
- May consist of
 - *Task navigation*: successfully operating interactive applications, such as installing a mobile app, completing an on-line survey, or purchasing a ticket
 - *Web navigation*: finding information on a website or browsing social media
 - *Command menu navigation*: finding the action needed in a desktop application
- Has nothing to do with visual elegance / graphic shininess

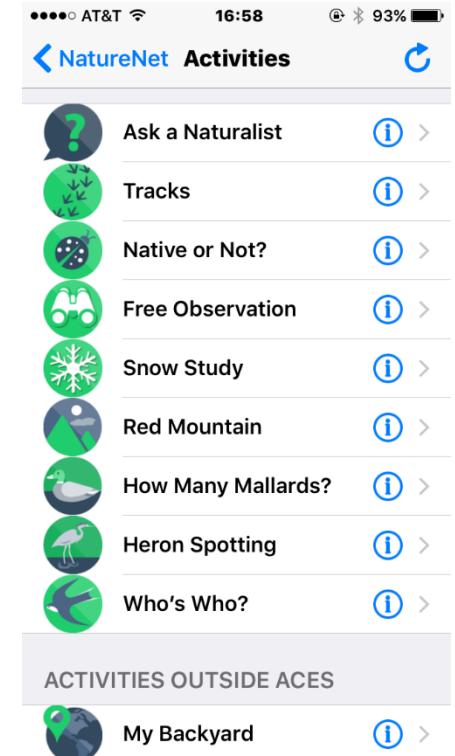
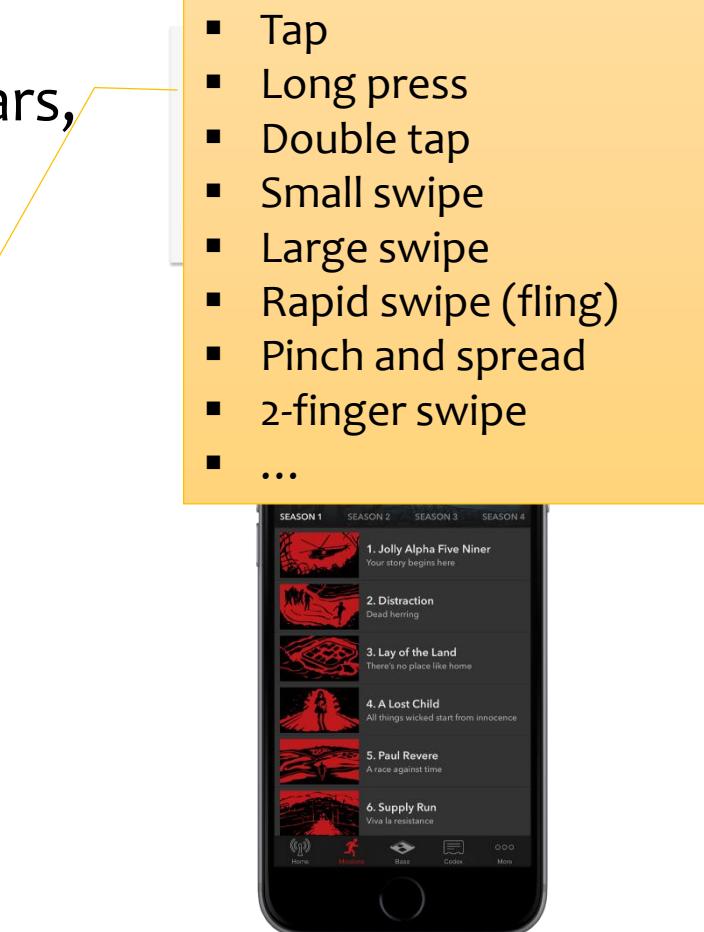
Navigation by selection

- Menu bars, pop-up menus, toolbars, palettes and ribbons
- Shortcuts and gestures for rapid interaction
- Long lists
- Linear versus simultaneous presentation



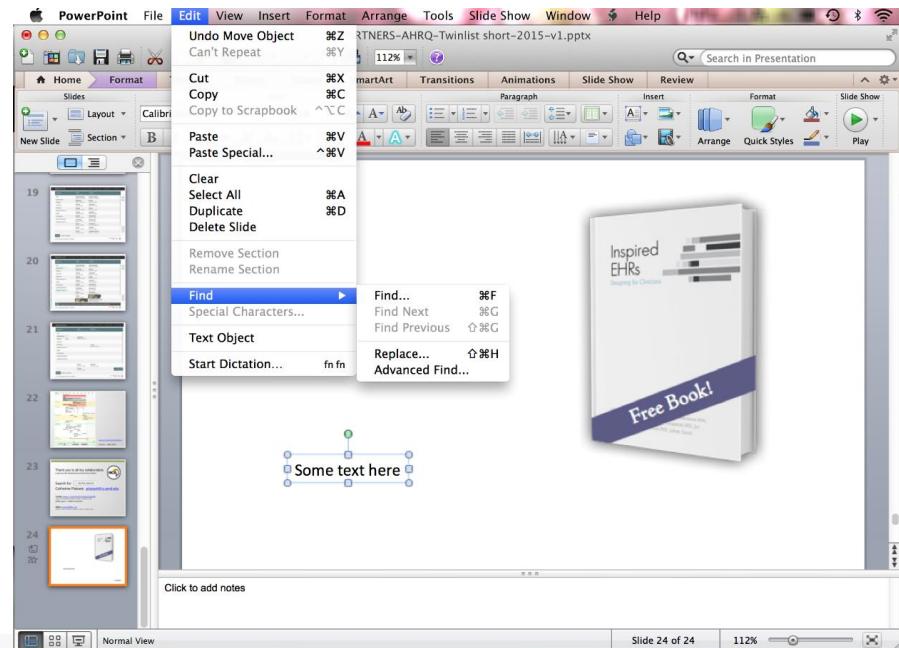
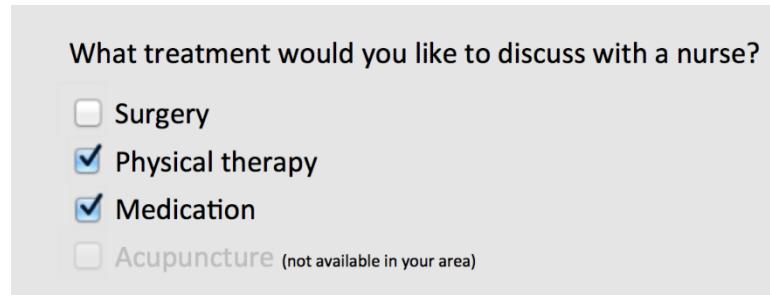
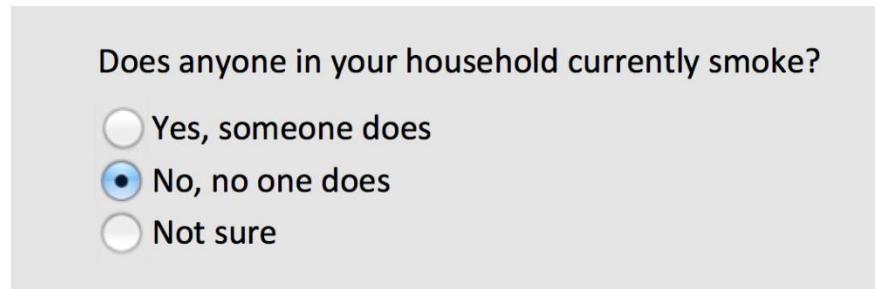
Navigation by selection

- Menu bars, pop-up menus, toolbars, palettes and ribbons
- **Shortcuts and gestures for rapid interaction**
- Long lists
- Linear versus simultaneous presentation



Navigation by selection

- Radio Buttons and Checkboxes
- Menu bars, pop-up menus, toolbars, palettes and ribbons



Menus

The screenshot shows the NASA website homepage with a complex navigation menu at the top. The menu items include: Missions, Galleries, NASA TV, Follow NASA, Downloads, About, NASA Audiences, and a Search bar. Below the menu, there is a main content area featuring several news stories and images. One prominent story is about the "One-Year Crew" on the International Space Station. Another story discusses the "Martian" Director Ridley Scott's comments on NASA's journey to Mars. There are also sections for "Eclipse", "NASA Scientist Sheds Light on Rare Sept. 27 Supermoon Eclipse", "The Real Martians", "Space Travel", and "SDO Solar Mission". The footer contains links to National Aeronautics and Space Administration, NASA Official: Brian Dunbar, and various agency reports.

The screenshot shows the NASA TV website homepage. The menu is much simpler, featuring only the NASA logo, a search bar, and a navigation icon. The main content area displays a video player showing two astronauts working on a space station, with the caption "One-Year Crew Halfway There". Below this, there is another video player showing three people in a laboratory setting, with the caption "SDO Catches an Earth-Moon Double Photobomb".

Content organization

- Organizing menus in a meaningful structure results in faster selection time and higher user satisfaction
- Approaches:
 - Linear sequence (e.g. in a wizard or survey)
 - Hierarchical structure (tree) that is natural and comprehensible (e.g. a store split into departments)
 - Network structure when choices may be reachable by more than one path (e.g. websites)

Tree-like content organization

Screenshot of the REI website illustrating tree-like content organization.

The top navigation bar includes: Help, Wish List, Gift Registry, Classes & Events, Store Locator, 0 items in the shopping cart, and Checkout. A welcome message "Welcome to REI! | Log In or Register" and a promotional banner "FREE SHIPPING With \$50 minimum purchase." are also present.

The main menu features categories: SHOP REI, SHOP REI OUTLET, TRAVEL WITH REI, LEARN, BLOG, MEMBERSHIP, and STEWARDSHIP. Sub-categories under SHOP REI include Camp & Hike, Climb, Cycle, Fitness, Run, Paddle, Snow, Travel, Men, Women, Kids, Footwear, More, and Deals.

The "Cycle" category is selected, showing sub-categories: Bikes, Bike Helmets, Cycling Clothing, Cycling Shoes, Bike Accessories, Bike Components, and Bike Racks. Below this, there are links for Car Racks, Novara Cycling, Cycling Deals, and All Cycling.

A sidebar on the left lists Features (Moisture wicking, Quick drying, Sun-protective fabric, Waterproof, Insulated, Earflaps, Made in USA) and Brand (Clear, 686).

The main content area displays four product cards:

- REI Rainwall Rain Jacket - Girls'**: \$31.83 - \$64.50. Rating: ★★★★☆ (1). Includes a "Compare" button.
- REI Rainwall Rain Pants - Kids'**: \$49.50. Rating: ★★★★☆ (1). Includes a "Compare" button.
- REI Sahara Convertible Pants - Girls'**: \$44.50. Rating: ★★★★☆ (9). Includes a "Compare" button.
- ONLY AT REI** (highlighted):
 - REI Rainwall Rain Pant - Girls'**: \$49.50. Rating: ★★★★☆ (1). Includes a "Compare" button.
 - REI Rainwall Rain Jacket - Girls'**: \$31.83 - \$64.50. Rating: ★★★★☆ (1). Includes a "Compare" button.
 - ONLY AT REI** (highlighted):
 - REI Sahara Convertible Pants - Girls'**: \$44.50. Rating: ★★★★☆ (9). Includes a "Compare" button.

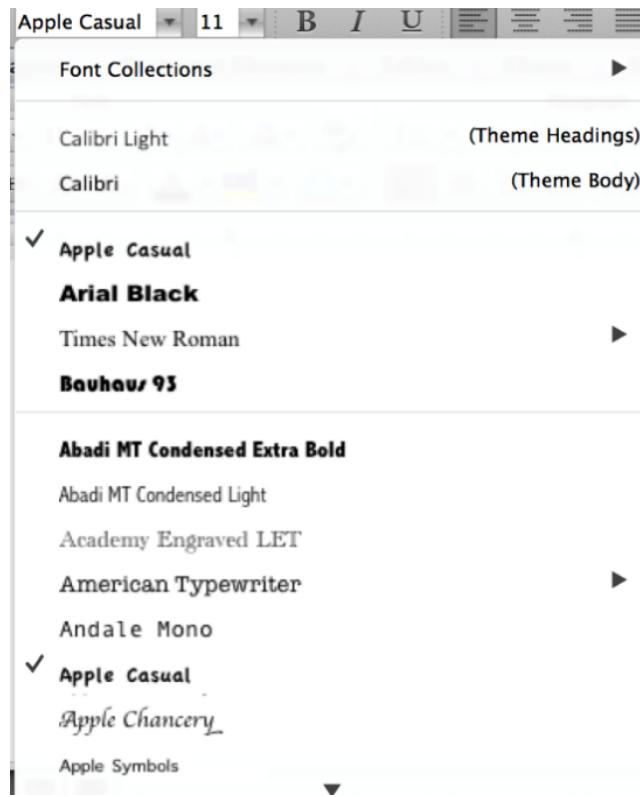
A promotional sidebar on the right encourages gift giving: "GIVE THE GIFT OF GEAR ANYTIME, ANYWHERE REI gift & e-gift cards Buy now >"

Rules for tree-like organization

- Use **task semantics** to organize menus
- Limit the **number of levels** (i.e. prefer broad–shallow to narrow–deep)
- Create groups of **logically similar** items: e.g. Level 1: countries, Level 2: states, Level 3: cities
- Form groups that **cover all possibilities**: e.g. Age ranges: [0–9] [10–19] [20–29] and [>= 30]
- Make sure that items are **non-overlapping**: e.g. use “Concerts” and “Sports.” over “Entertainment” and “Events”
- Arrange items in each branch by **natural sequence** (not alphabetically) or **group** related items
- Keep **ordering** of items **fixed** (or possibly duplicate frequent items in dedicated section of the menu)

Menu grouping (example)

- 3 groups
 - Template styles
 - Frequently used fonts
 - All fonts
- Alphabetical order within each group
 - Lack of a semantic ordering
- Preview for recognition
- Scrollable list



Information scent

- Informavores orient themselves using *information scent*
- How can we figure out how to get the information we want?
- Do we realize what options are available to us?
- Web pages (and UIs general) provide cues to suggest where to find information
 - Icons, Menus, Breadcrumbs, Color coding, ...



Informavore, an organism that consumes information

Poor information scent

- Users flailing around...
 - Don't know where to go
- Low confidence
 - Users are not sure of their actions, both before executing it and after they see its effects
- Back button
 - When it's used too often...

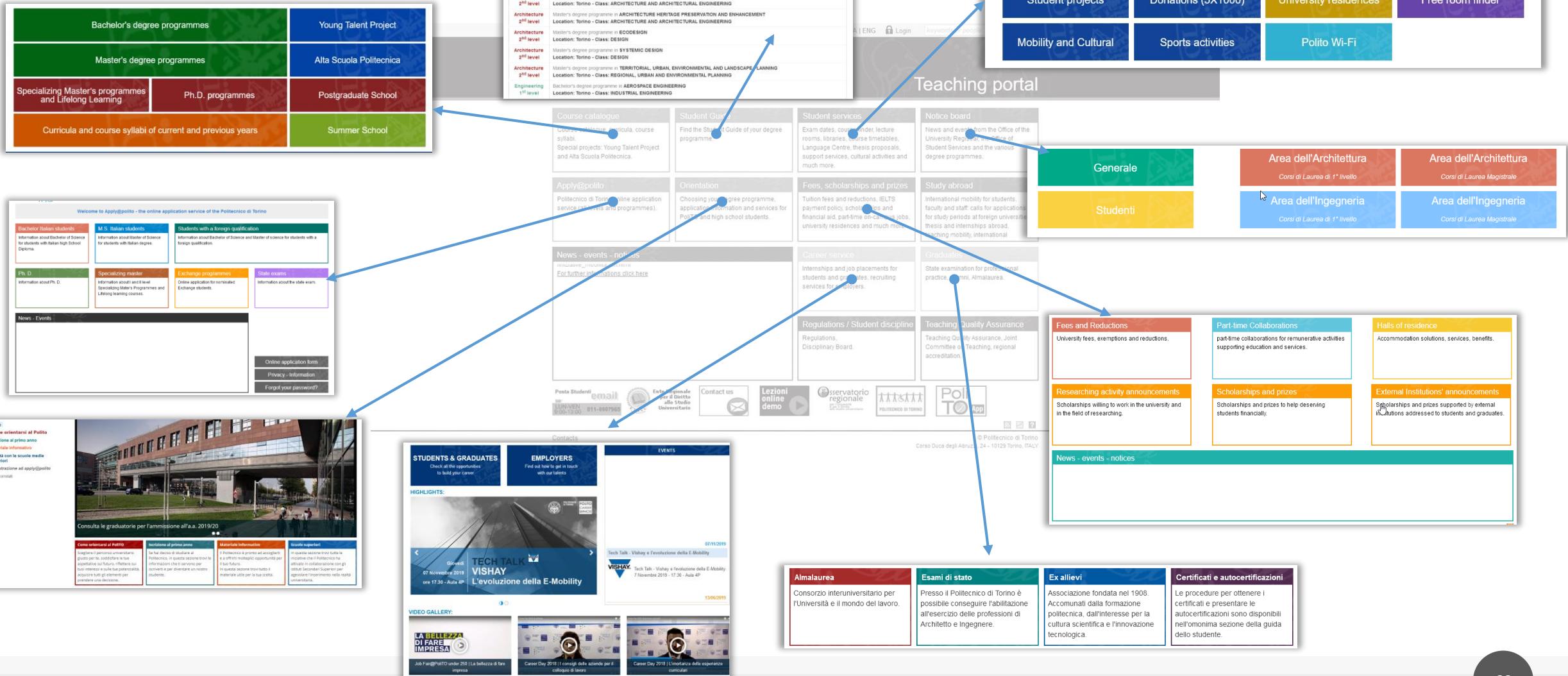
Example

The screenshot shows the homepage of the Politecnico di Torino Teaching portal. At the top, there is a navigation bar with links for "The Politecnico", "Teaching", "Research", "Business", and "International Campus". Below the navigation bar is the Politecnico di Torino logo and the text "POLITECNICO DI TORINO". A search bar and a login link are also present. The main content area is titled "Teaching portal" and features several colored boxes with links:

- Course catalogue**: Course catalogue, curricula, course syllabi. Special projects: Young Talent Project and Alta Scuola Politecnica.
- Student Guide**: Find the Student Guide of your degree programme.
- Student services**: Exam dates, course finder, lecture rooms, libraries, course timetables, Language Centre, thesis proposals, support services, cultural activities and much more.
- Notice board**: News and events from the Office of the University Registrar, the Office of Student Services and the various degree programmes.
- Apply@polito**: Politecnico di Torino online application service (all levels and programmes).
- Orientation**: Choosing your degree programme, application information and services for PoliTO and high school students.
- Fees, scholarships and prizes**: Tuition fees and reductions, IELTS payment policy, scholarships and financial aid, part-time on-campus jobs, university residences and much more.
- Study abroad**: International mobility for students, faculty and staff; calls for applications for study periods at foreign universities, thesis and internships abroad, teaching mobility, international
- News - events - notices**: For further informations click here
- Career service**: Internships and job placements for students and graduates, recruiting services for employers.
- Graduates**: State examination for professional practice, alumni, AlmaLaurea.
- Regulations / Student discipline**: Regulations, Disciplinary Board.
- Teaching Quality Assurance**: Teaching Quality Assurance, Joint Committee on Teaching, regional accreditation.

At the bottom of the page, there are links for "Posta Studenti", "email" (with a phone number 011-8997965), "Ente Regionale per il Diritto allo Studio Universitario", "Contact us", "Lezioni online demo" (with a play button icon), "Osservatorio regionale", "POLITECNICO DI TORINO", "PoliTO App", and social media icons for YouTube, Facebook, and Twitter. The footer also includes the address "Corso Duca degli Abruzzi, 24 - 10129 Torino, ITALY".

Example



Example

Survey@Polito

Administration -- Logged in as: corno

Survey Smart Home Survey (ID:365355)

Title: Smart Home Survey (ID 365355)
Survey URL (English): <https://survey.polito.it/365355/lang-en> [EN] [DE] [IT] [FR] [ES]

Description: This very short survey aims at exploring the future and expected user interaction between user and smart environments, in particular smart homes. The research goal is to update, and compare, the research findings of a similar survey held in year 2010 (5 years ago). The expected completion time for this survey is 5 minutes or less.

Welcome: Thank you for agreeing to take part in this survey. All the answers you give are anonymous, and the data-set will be released as open data after the survey ends. You may choose to reply in any of the supported languages, preferably your mother tongue.

End message: Thanks for completing the survey. The results will be available on the website <http://elite.polito.it> The paper describing the previous survey (in 2010) is available at: <http://porto.polito.it/2380988/>

Administrator: Fulvio Corno (fulvio.corno@polito.it)

Start date/time: -

Expiry date/time: -

Template: default

Base language: English

Additional languages: French
German
Italian
Portuguese
Spanish

End URL: e-Lite research group webpage

Number of questions/groups: 11/3

Survey currently active: Yes

Survey table name: beta_survey_365355

Hints: Answers to this survey are anonymized.
It is presented group by group.
Participants can save partially finished surveys
Basic email notification is sent to: fulvio.corno@gmail.com
Regenerate question codes: [Straight] [By group]

LimeSurvey
Version 1.92+ Build 120919

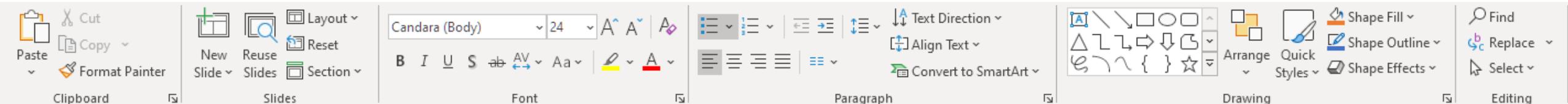
Like it? Donate to LimeSurvey

Common Problems

- Unexpected categories
- Short links
- Hidden navigation
- Icons are too generic, or not easily recognizable

Icons

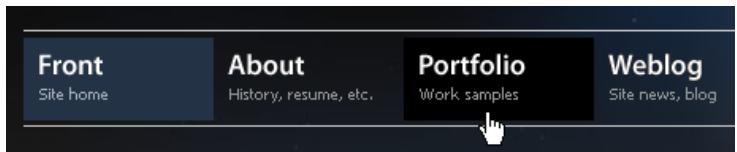
- Icons facilitate recognition over recall
 - When they are consistently used, and frequently visible
- Redundant coding helps recognition and memorization
 - Icon + Text + Tooltip + Context



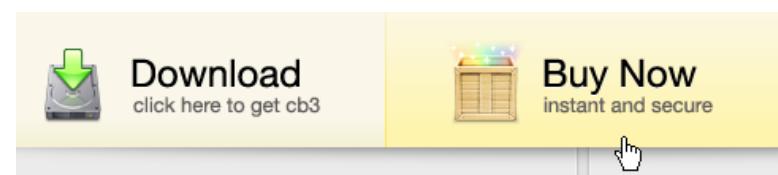
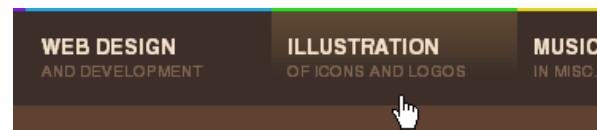
Links

- Always use multi-word links
 - Download the [next assignment template](#)
 - Assignment template: click [here](#)
- Straight language, not jargon
 - [Scor-o-matic](#) download
 - Download the [spreadsheet for computing scores](#)

“Speaking” block navigation



A screenshot of a website with a sidebar. The sidebar has sections: "Front Page" (with a sub-note "This is where it all begins"), "Our Portfolio" (with a sub-note "Let us show you our work"), "Who We Are" (with a sub-note "Get to know us a little better" and a hand cursor icon), "What We Do" (with a sub-note "A rundown of our services"), and "Contact Us" (with a sub-note "How to get in touch with us").



A screenshot of a website with a sidebar. The sidebar has sections: "Newsletter" (Free newsletter), "Store" (Maximize your ministry), "Events" (Attend an event near you), "Podcast" (Free audio training), "Coaching" (Networks for Worship Leaders), and "free resources".

Forms

- Logical field grouping
 - Sections
 - Dividers
 - Columns (spacing)
 - Titles
- Real-time error checking and validation feedback
 - Suggestions for correction
- Explicit submit button

Create an IEEE Account [?](#)

* Required field

Provide your personal information

* Given/First name: Catherine

Middle name:

* Last/Family/Surname: Plaisant

Enter e-mail address & password

The e-mail provided here will be the username of your account.

* E-mail address: cplaisant@

* Re-enter e-mail address:

⚠ The e-mail address provided is not in a valid e-mail format (for example: j.doe@nomail.com). Please try again.

* Password: ✓ Your password is good

Passwords must be between 8 and 64 characters, and include at least one number. [More...](#)

* Confirm password:

Set security questions

For your security, IEEE Accounts are required to have two security questions and answers.

* Security question 1:
Select

* Type your answer:

* Security question 2:
Select

* Type your answer:

[Privacy & Opting Out of Cookies](#)

Create Account and Continue Joining [Cancel](#)

Reading content

- How people read on-line?
- They don't

How Users Read on the Web
by Jakob Nielsen on September 30, 1997
<https://www.nngroup.com/articles/how-users-read-on-the-web/>

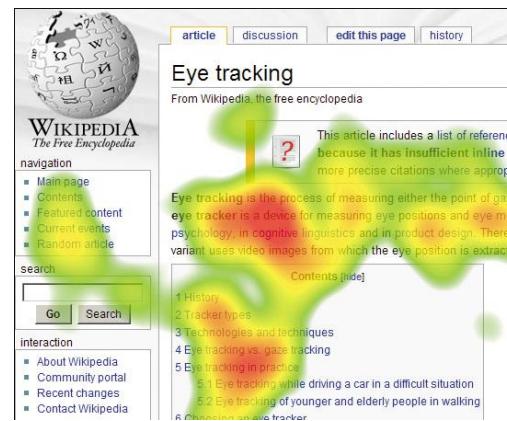
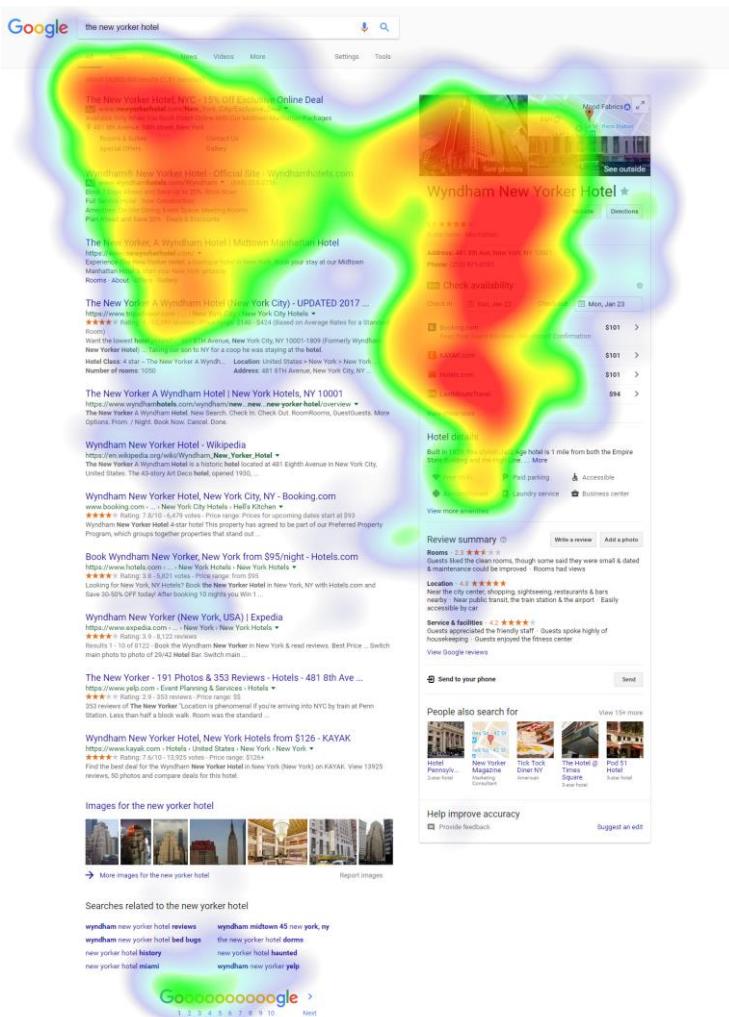
Location on the page

Eye tracking studies show where the users actually look on the page

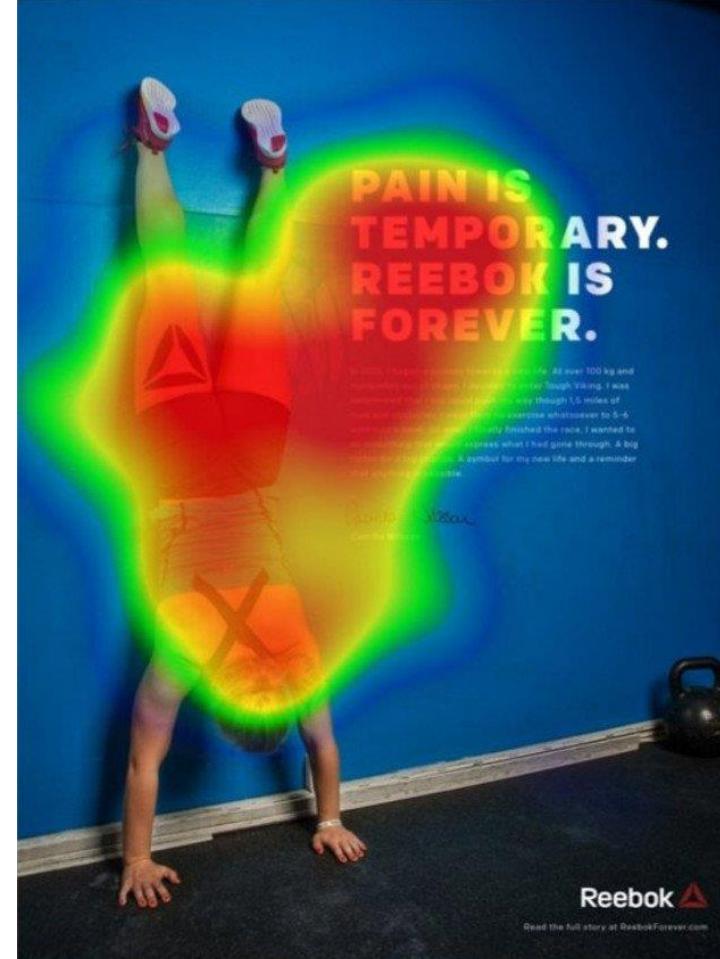
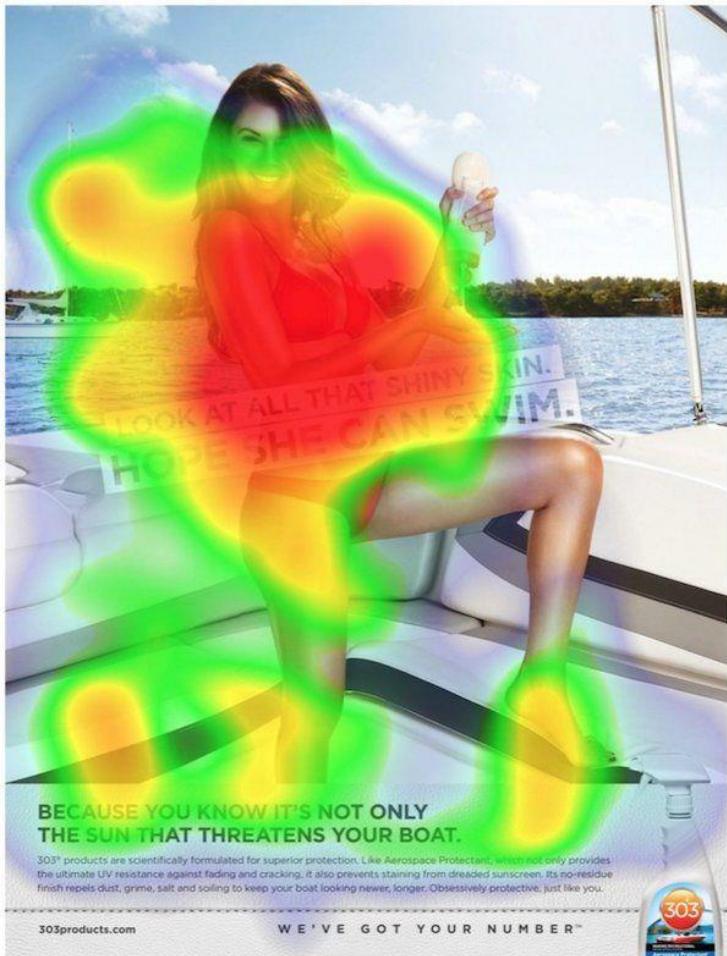
Search “eye tracking heat map” and see the major patterns

Users “glance” and spend limited amount of time on each page.

F-shaped pattern



Did anyone ever look at the product name?

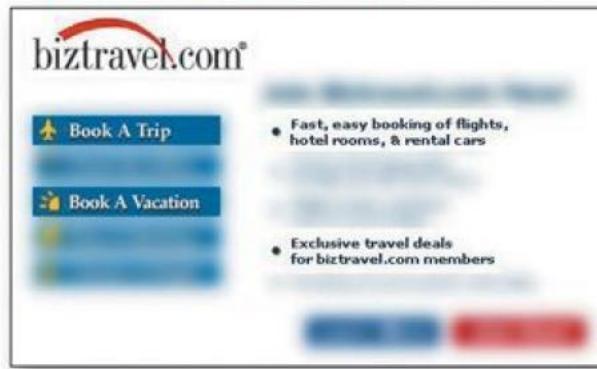


Scanning

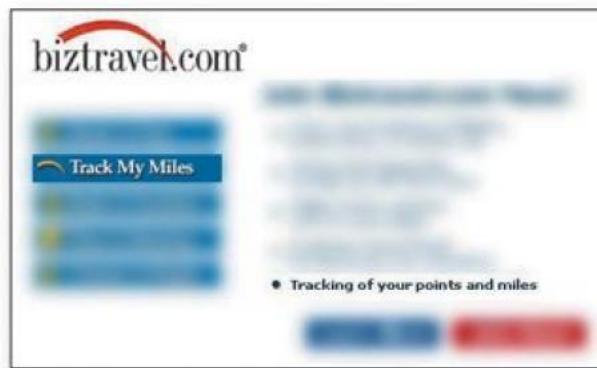
WHAT DESIGNERS BUILD...



WHAT USERS SEE...



I want to
buy a
ticket.



How do I
check my
frequent
flyer miles?

Experiment

Site Version	Sample Paragraph	Usability Improvement (relative to control condition)
Promotional writing (control condition) using the "marketese" found on many commercial websites	Nebraska is filled with internationally recognized attractions that draw large crowds of people every year, without fail. In 1996, some of the most popular places were Fort Robinson State Park (355,000 visitors), Scotts Bluff National Monument (132,166), Arbor Lodge State Historical Park & Museum (100,000), Carhenge (86,598), Stuhr Museum of the Prairie Pioneer (60,002), and Buffalo Bill Ranch State Historical Park (28,446).	0% (by definition)
Concise text with about half the word count as the control condition	In 1996, six of the best-attended attractions in Nebraska were Fort Robinson State Park, Scotts Bluff National Monument, Arbor Lodge State Historical Park & Museum, Carhenge, Stuhr Museum of the Prairie Pioneer, and Buffalo Bill Ranch State Historical Park.	+58%
Scannable layout using the same text as the control condition in a layout that facilitated scanning	Nebraska is filled with internationally recognized attractions that draw large crowds of people every year, without fail. In 1996, some of the most popular places were: <ul style="list-style-type: none"> •Fort Robinson State Park (355,000 visitors) •Scotts Bluff National Monument (132,166) •Arbor Lodge State Historical Park & Museum (100,000) •Carhenge (86,598) •Stuhr Museum of the Prairie Pioneer (60,002) •Buffalo Bill Ranch State Historical Park (28,446). 	+47%
Objective language using neutral rather than subjective, boastful, or exaggerated language (otherwise the same as the control condition)	Nebraska has several attractions. In 1996, some of the most-visited places were Fort Robinson State Park (355,000 visitors), Scotts Bluff National Monument (132,166), Arbor Lodge State Historical Park & Museum (100,000), Carhenge (86,598), Stuhr Museum of the Prairie Pioneer (60,002), and Buffalo Bill Ranch State Historical Park (28,446).	+27%
Combined version using all three improvements in writing style together: concise, scannable, and objective	In 1996, six of the most-visited places in Nebraska were: <ul style="list-style-type: none"> •Fort Robinson State Park •Scotts Bluff National Monument •Arbor Lodge State Historical Park & Museum •Carhenge •Stuhr Museum of the Prairie Pioneer •Buffalo Bill Ranch State Historical Park 	+124%

Best locations to put content

- Above the fold
- Where people expect
 - Where other pages put similar content
 - **Not** where the ads usually go
- Users will scroll down if the first content is interesting

Banner blindness

- The brain learns to avoid uninteresting content
- Banners and Advertisements are recognized subconsciously (by their appearance) and are never considered
 - Ads also “poison” adjacent elements
- Lesson learned: never create a message / title / warning / etc. that might look like an ad. (Faux ads)



The Design System of the Italian Public Administration

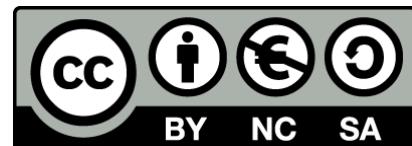
An example toolkit for visual design (targeted at Public Administration websites and services, mainly)

<https://designers.italia.it/>

The screenshot shows the homepage of the [designers Italia](https://designers.italia.it/) website. At the top, there's a blue header bar with the text "AgID + Team Digitale" and a navigation menu with links to "Piano Triennale", "Developers", "Designers" (which is underlined), "Forum", "Docs", and "GitHub". Below the header is a teal bar containing the text "'The Design System of the Italian Public Administration' [read on Speaker Deck](#)". The main content area features the [designers Italia](#) logo and the tagline "dalla parte dei cittadini". A large, stylized graphic of a paper airplane is positioned on the left side. The central text reads: "Disegniamo **servizi digitali semplici** per **risolvere i problemi dei cittadini** e restituire il **buonumore** ;)". Below this, there's a newsletter sign-up form with fields for "indirizzo email" and a "ISCRIVITI" button, along with a "LEGGI IL POST" button for Medium. A descriptive paragraph about the organization's mission follows, along with a "per saperne di più >" link.

References

- Scott MacKenzie: Human-Computer Interaction - An Empirical Research Perspective, Morgan Kaufmann
 - Chapter 3: Interaction Elements
- Ben Shneiderman, Catherine Plaisant, Maxine S. Cohen, Steven M. Jacobs, and Niklas Elmquist, Designing the User Interface: Strategies for Effective Human-Computer Interaction
 - Chapter 8: Fluid Navigation
- COGS120/CSE170: Human-Computer Interaction Design, videos by Scott Klemmer, https://www.youtube.com/playlist?list=PLLssT5z_DsK_nusHL_Mjt87THSTIgrsyJ



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