WEB DEVELOPMENT & DESIGN

AN INTRODUCTION TO LAYOUT & COMPOSITION

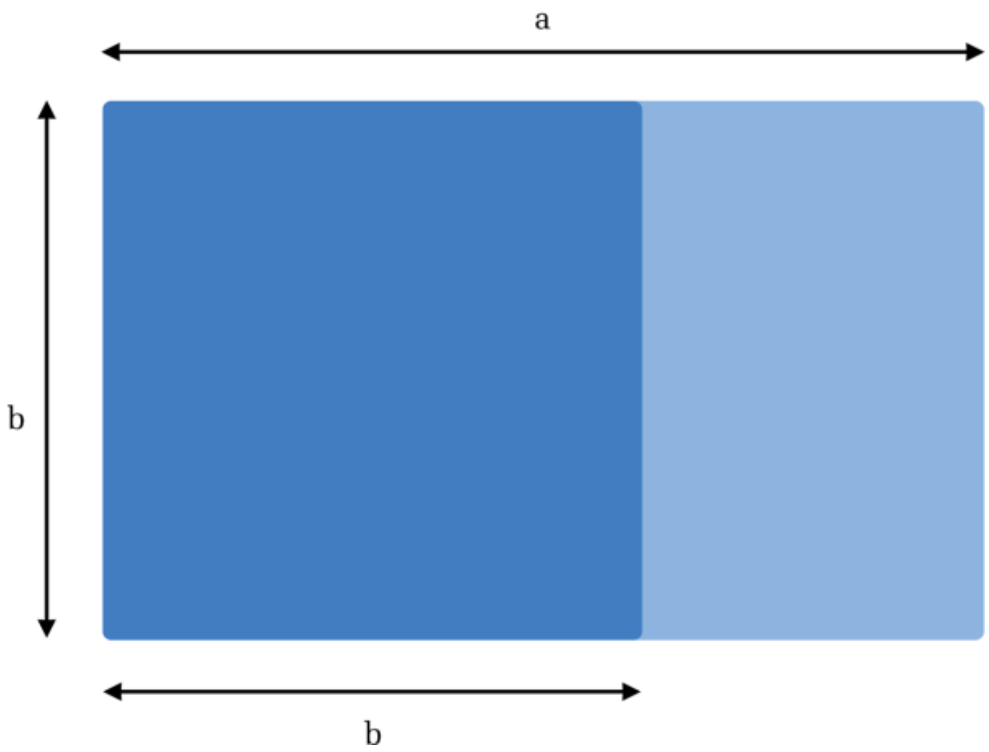
L. Hernández

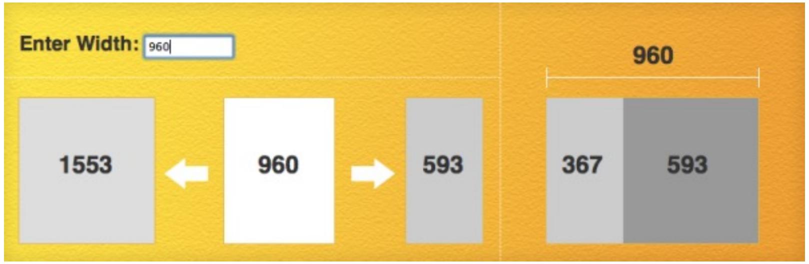
DESIGN RULES

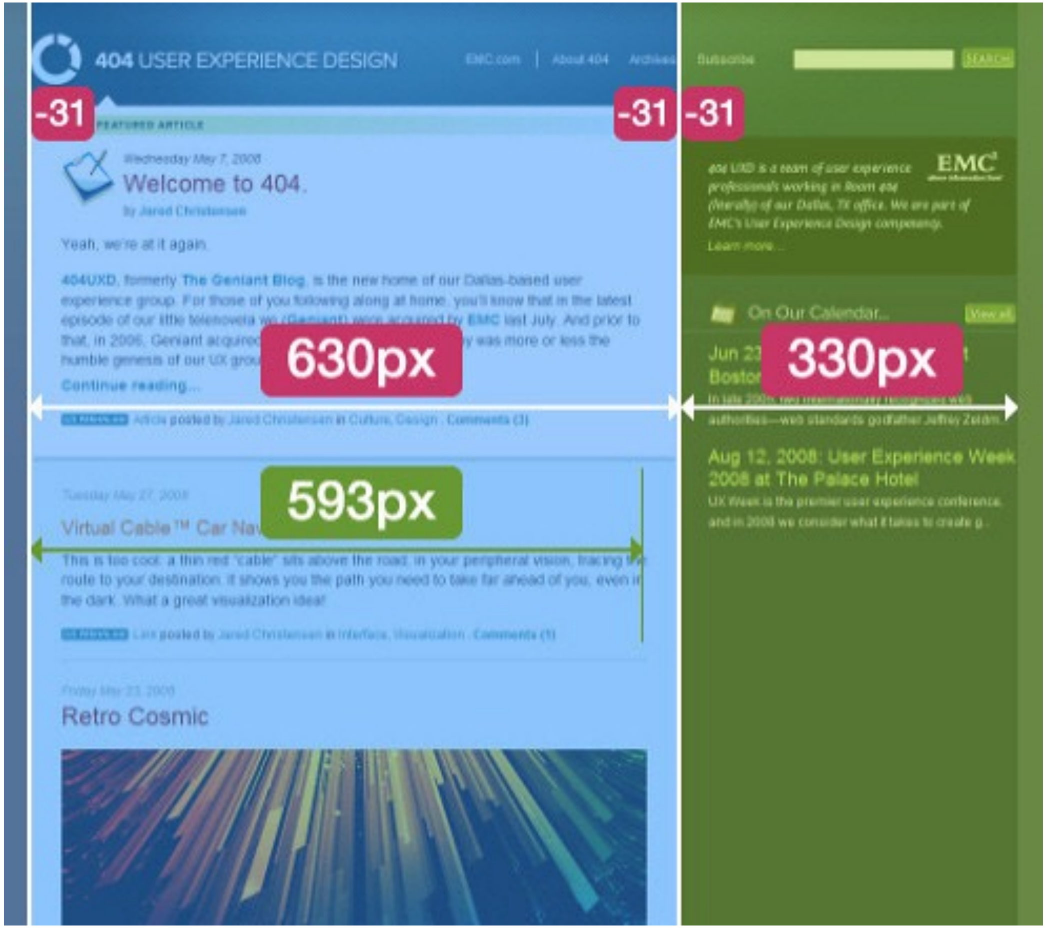
Golden ratio describes a way to divide an area into 2 parts and the **magic number** is approximately **1.62** (or **61.2%**)

One way to use this rule is to divide designs into **3**, fill **2/3** with **content**, and leave **1/3** for width or placement of a **sidebar** within a page design

$$b = a \div 1.62$$




Enter Width: 960



404 USER EXPERIENCE DESIGN

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SEARCH

FEATURED ARTICLE

Wednesday May 7, 2008

Welcome to 404.

by Jared Christensen

Yeah, we're at it again.

404UXD, formerly The Geniant Blog, is the new home of our Dallas-based user experience group. For those of you following along at home, you'll know that in the latest episode of our little telenovela we (Geniant) were acquired by EMC last July. And prior to that, in 2006, Geniant acquired [illegible] was more or less the humble genesis of our UX grou[illegible]

Continue reading...

Article posted by Jared Christensen in Culture, Design . Comments (3)

Tuesday May 27, 2008

Virtual Cable™ Car Na[illegible]

This is too cool: a thin red "cable" sits above the road, in your peripheral vision, tracing the route to your destination. It shows you the path you need to take far ahead of you, even in the dark. What a great visualization idea!

Link posted by Jared Christensen in Interface, Visualization . Comments (1)

Friday May 23, 2008

Retro Cosmic

404 UXD is a team of user experience professionals working in Room 404 (literally) of our Dallas, TX office. We are part of EMC's User Experience Design compenany.

Learn more...

EMC²

On Our Calendar...

View all

Jun 23[illegible]

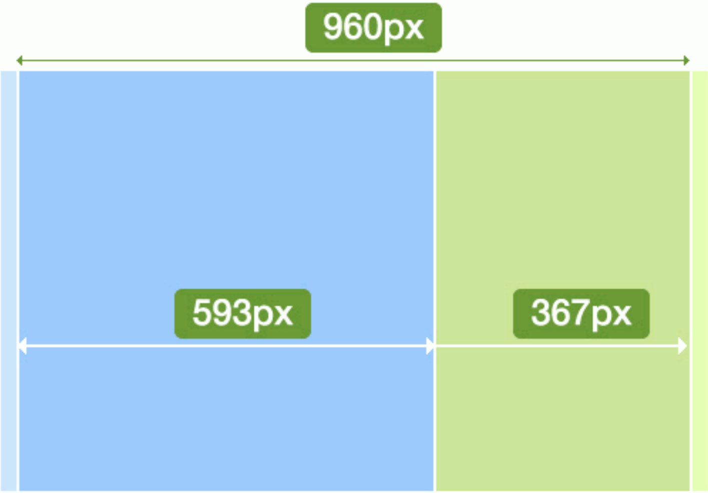
Boston[illegible]

In late 2008, two internationally recognized web authorities—web standards godfather Jeffrey Zeldm...

Aug 12, 2008: User Experience Week 2008 at The Palace Hotel

UX Week is the premier user experience conference, and in 2008 we consider what it takes to create g...

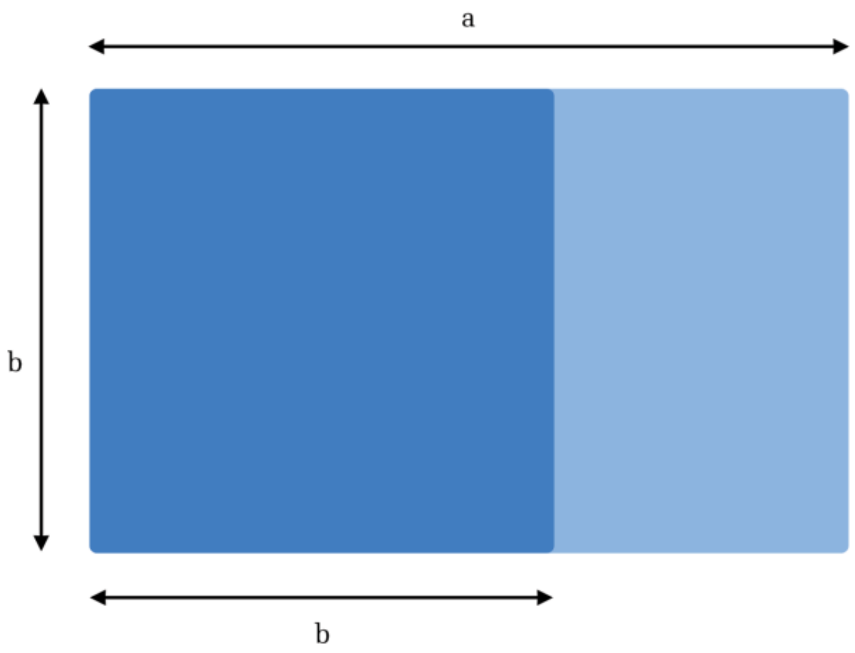
Divine Proportion: 1.618

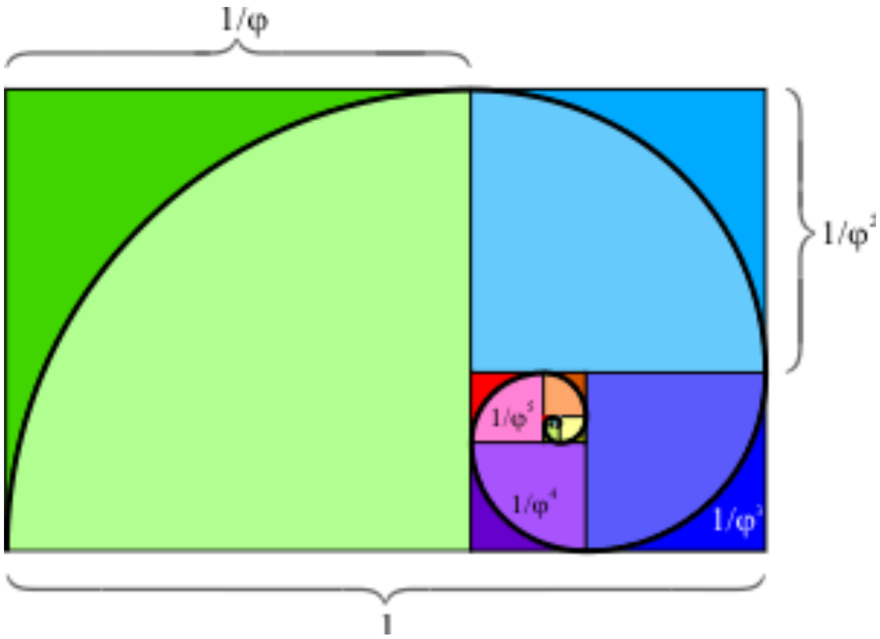


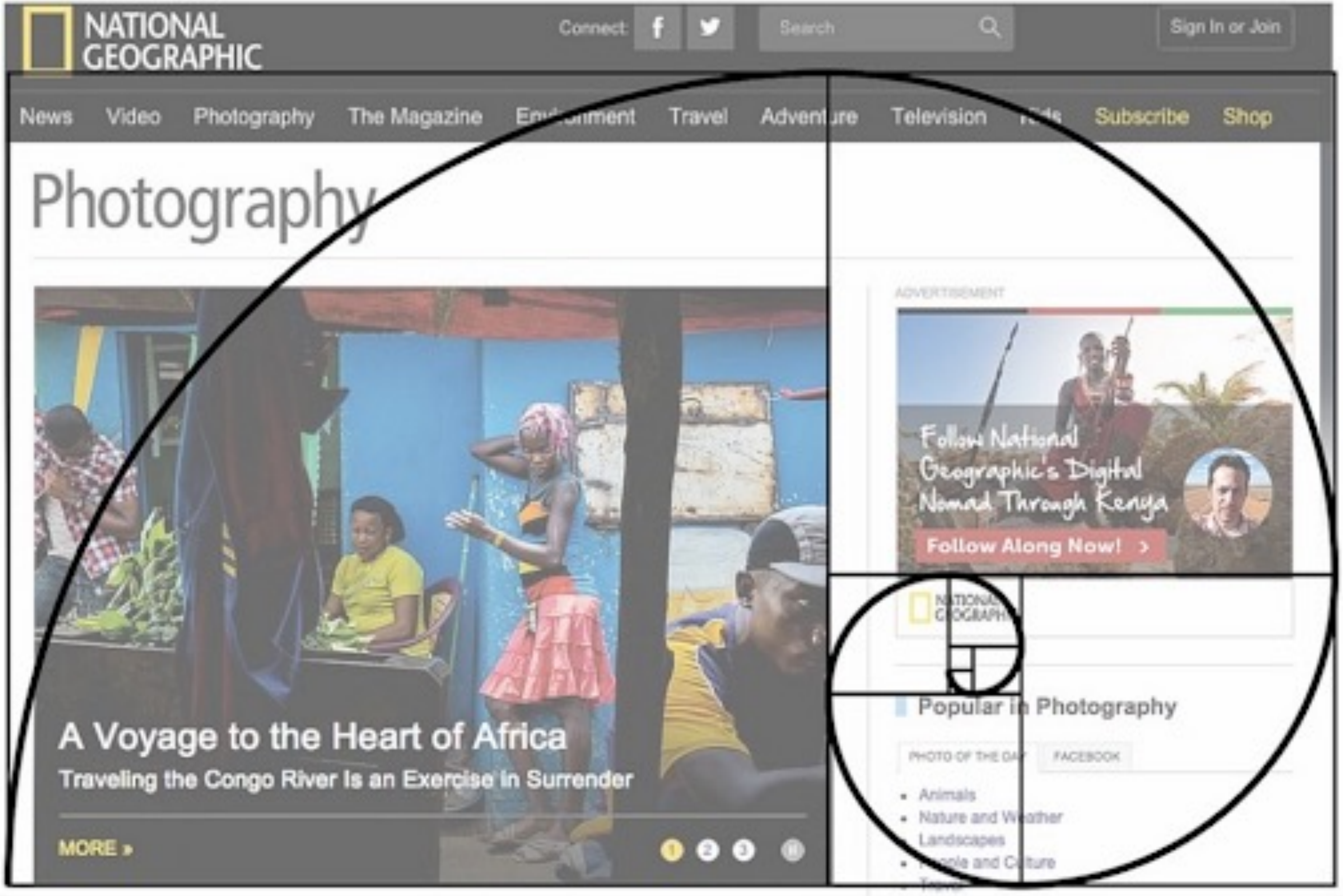
960px : 1.618 = 593px
960px - 593px = 367px

DESIGN RULES

$b = a \div 1.62$







Photography

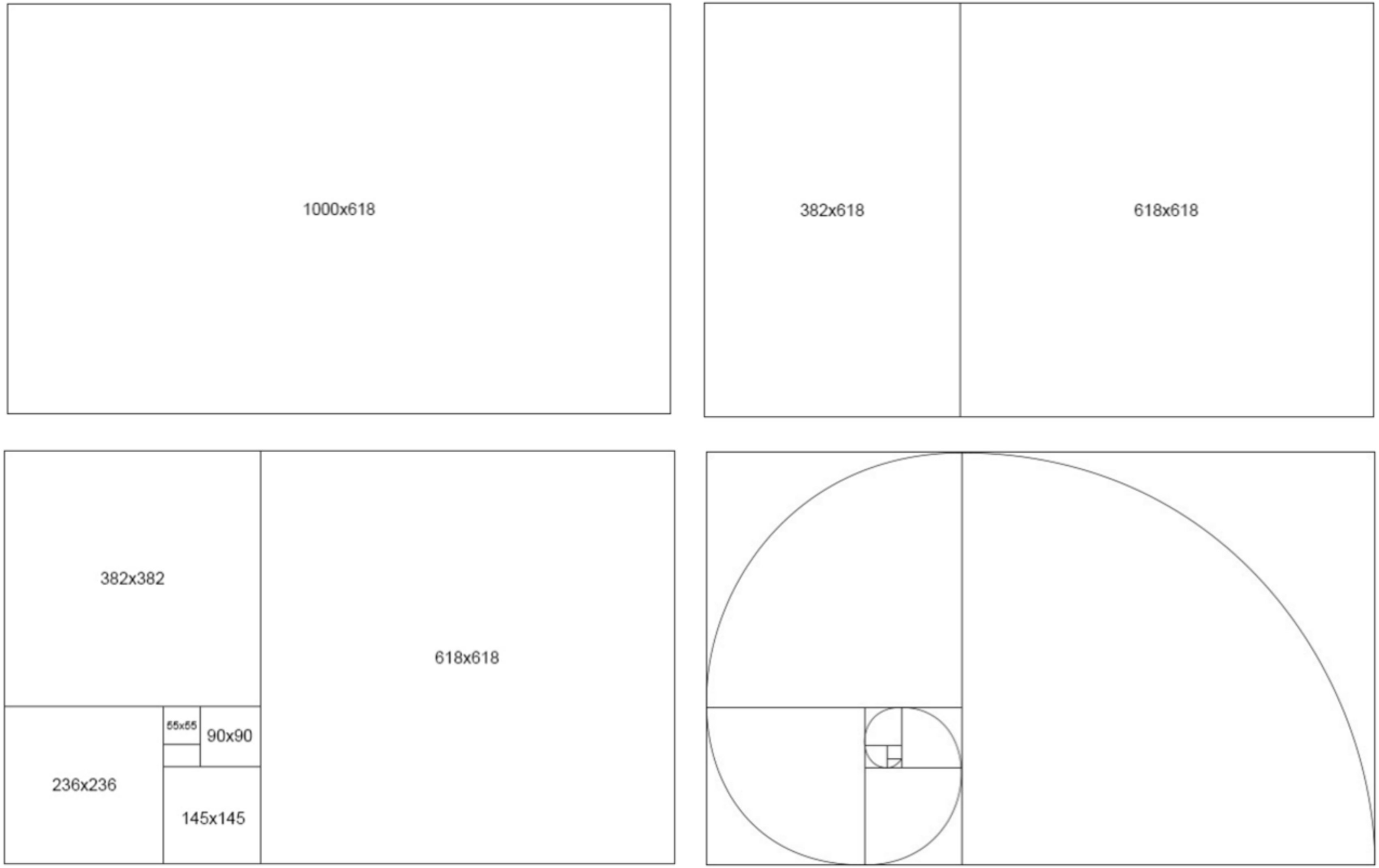
A Voyage to the Heart of Africa

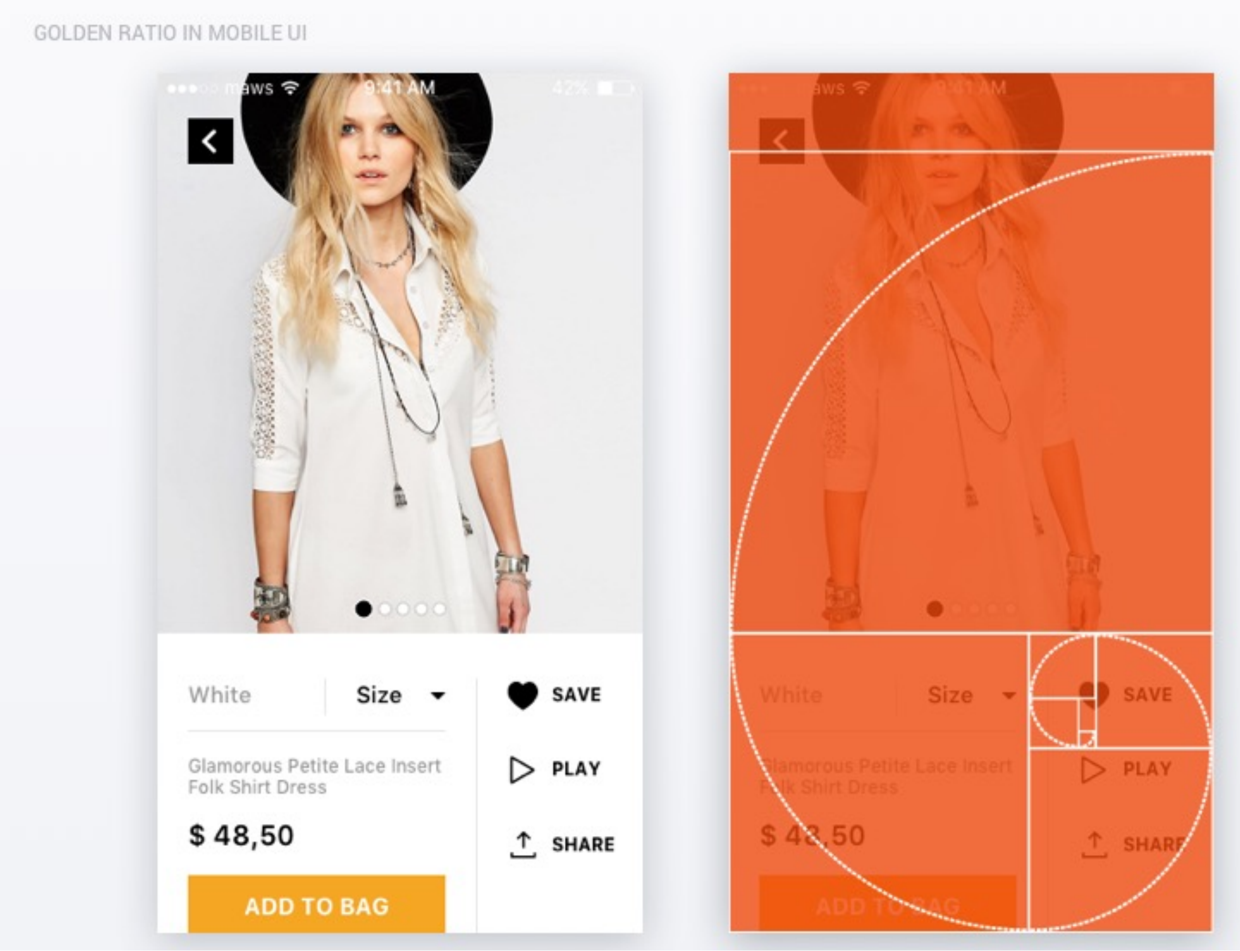
Traveling the Congo River Is an Exercise in Surrender

Follow National Geographic's Digital Nomad Through Kenya

Popular in Photography

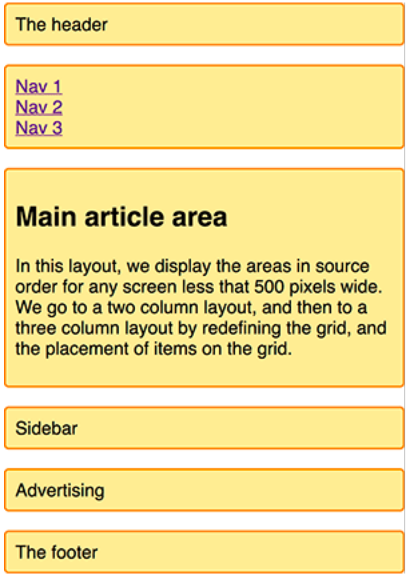
- Animals
- Nature and Weather
- Landscapes
- People and Culture
- Travel


1000x618
382x618
618x618
382x382
618x618
55x55
90x90
236x236
145x145


GOLDEN RATIO IN MOBILE UI
9:41 AM
42%
White
Size
SAVE
PLAY
SHARE
Glamorous Petite Lace Insert Folk Shirt Dress
$ 48,50
ADD TO BAG

FIXED OR FLEXIBLE?

Because of **flexible nature** of actual **websites**, and **variable size** of users’ **browser windows**, we only have a **limited area to work**



The header

Nav 1
Nav 2
Nav 3

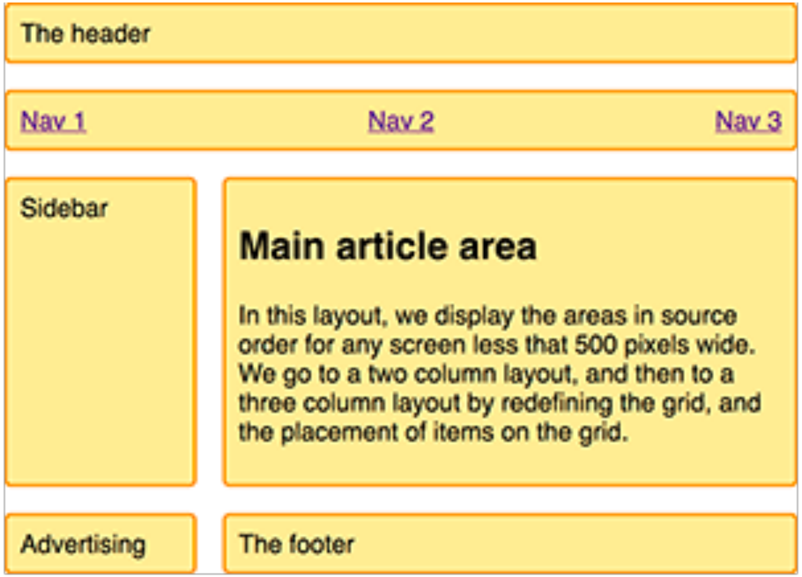
Main article area

In this layout, we display the areas in source order for any screen less that 500 pixels wide. We go to a two column layout, and then to a three column layout by redefining the grid, and the placement of items on the grid.

Sidebar

Advertising

The footer



The header

Nav 1 Nav 2 Nav 3

Sidebar

Main article area

In this layout, we display the areas in source order for any screen less that 500 pixels wide. We go to a two column layout, and then to a three column layout by redefining the grid, and the placement of items on the grid.

Advertising

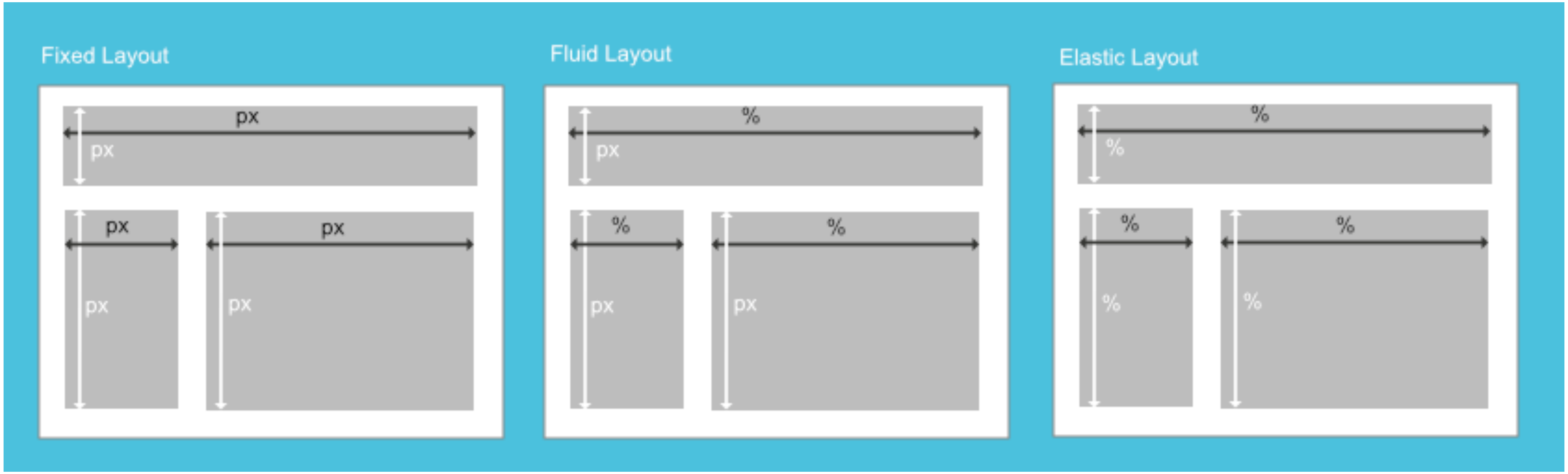
The footer

FIXED OR FLEXIBLE?

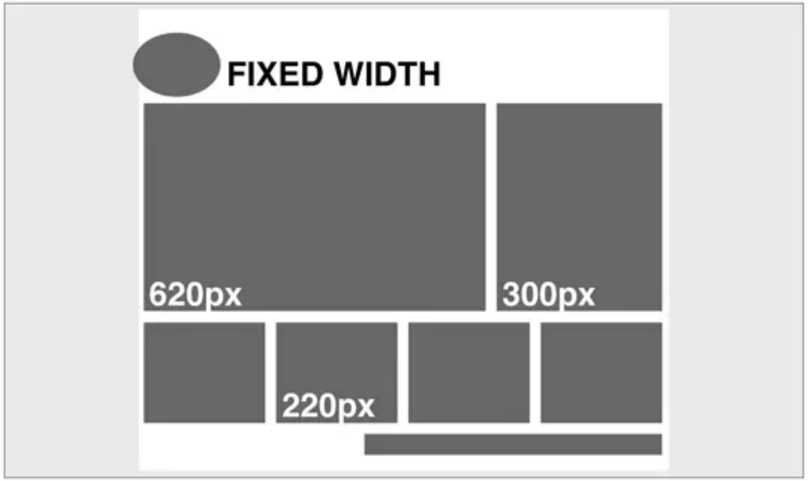
We have some options available that will help us take advantage of this **flexibility websites**:

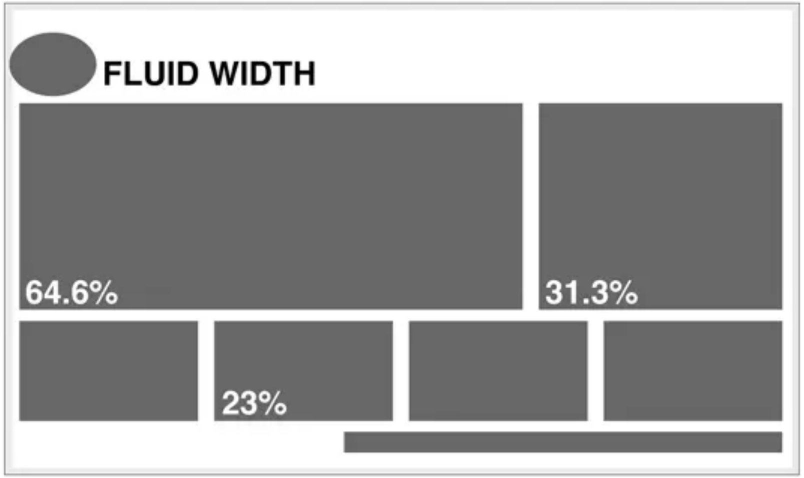
- With a **fixed** layout, dimensions of layout are specified in a particular **number of units** (pixels)
- A **fluid** or **liquid** layout's dimensions are defined relative to size of **viewport** using **percentages** (%)
- An **elastic** layout’s dimensions are dependent on **text size** (**em** units)

FIXED OR FLEXIBLE?



FIXED OR FLEXIBLE?

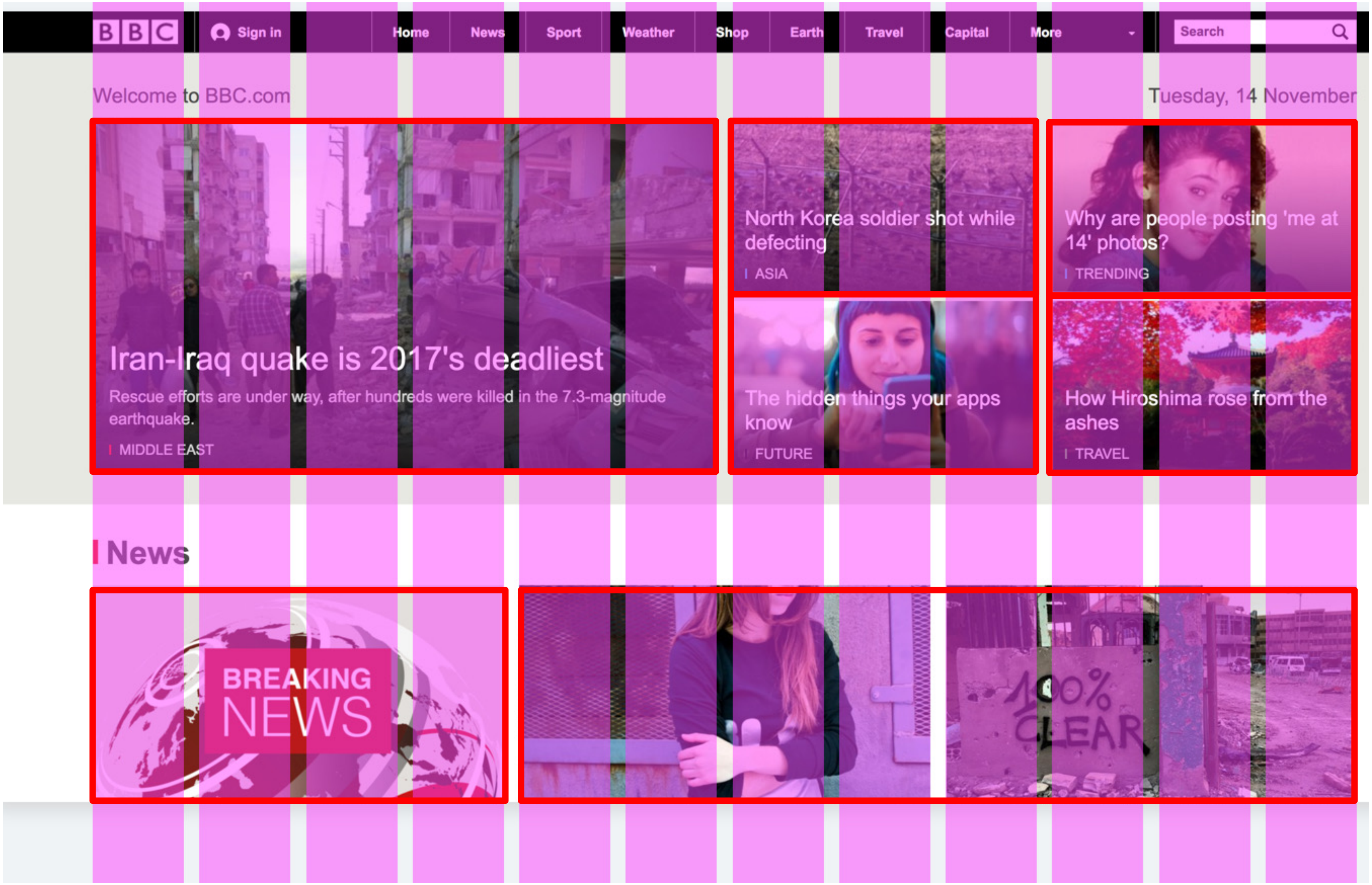




GRID SYSTEM

Any **grid** works around premise that **visual information** is easier to take in if elements are **in alignment** (horizontally or vertically)

Web user will probably be unaware, consciously, of **alignment**, but eye moves around page "naturally" and we’re talking major points for **usability**



Welcome to BBC.com

Tuesday, 14 November

Iran-Iraq quake is 2017's deadliest

Rescue efforts are under way, after hundreds were killed in the 7.3-magnitude earthquake.

MIDDLE EAST

North Korea soldier shot while defecting

ASIA

Why are people posting 'me at 14' photos?

TRENDING

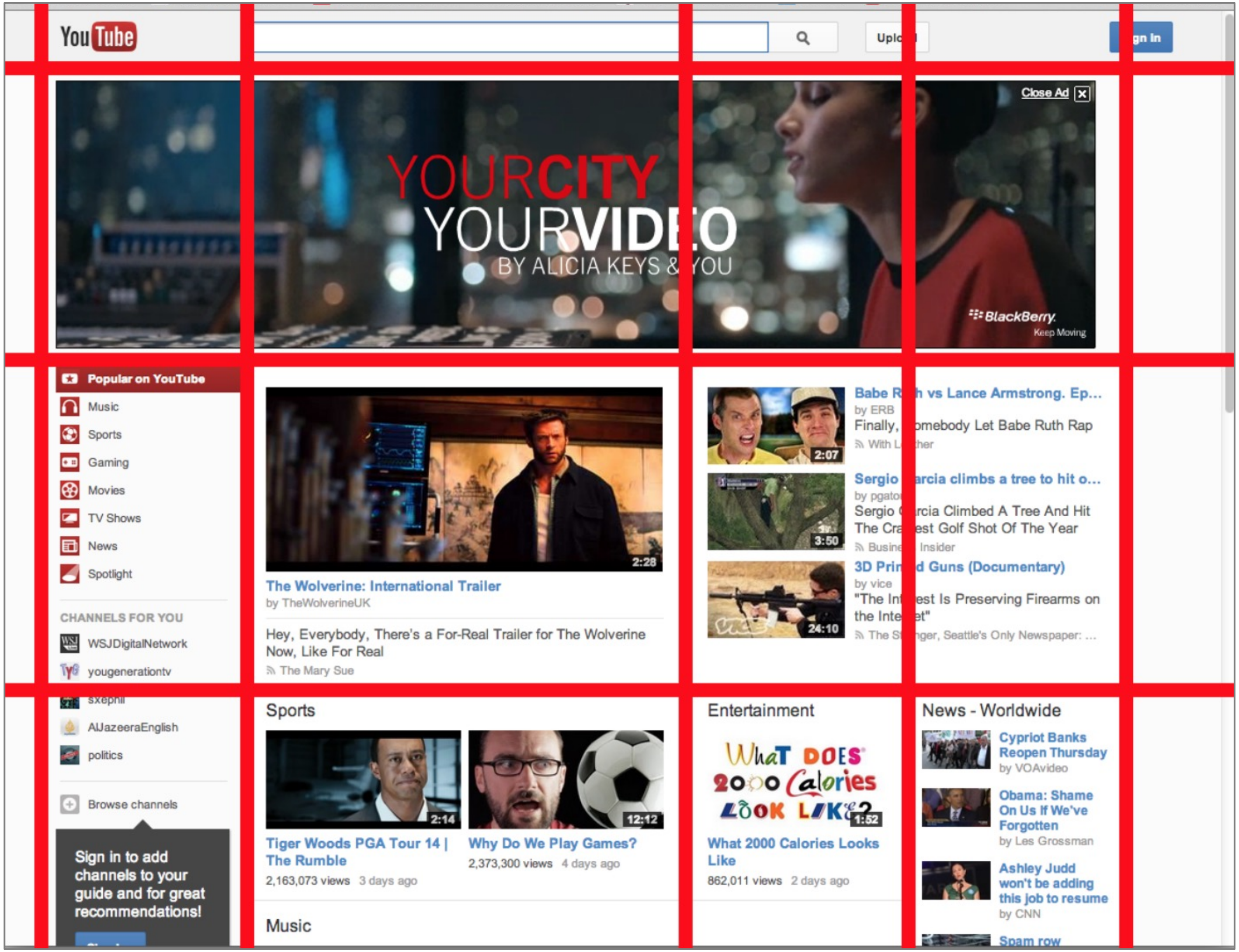
The hidden things your apps know

FUTURE

How Hiroshima rose from the ashes

TRAVEL

News



The Wolverine: International Trailer
by TheWolverineUK
Hey, Everybody, There's a For-Real Trailer for The Wolverine Now, Like For Real
The Mary Sue

Babe R h vs Lance Armstrong. Ep...
by ERB
Finally, omebody Let Babe Ruth Rap
With L her

Sergio arcia climbs a tree to hit o...
by pgato
Sergio rcia Climbed A Tree And Hit The Cra est Golf Shot Of The Year
Busine Insider

3D Prin d Guns (Documentary)
by vice
"The Int est Is Preserving Firearms on the Inte et"
The S nger, Seattle's Only Newspaper: ...

Sports

Tiger Woods PGA Tour 14 | The Rumble
2,163,073 views 3 days ago

Why Do We Play Games?
2,373,300 views 4 days ago

Music

Entertainment

What 2000 Calories Looks Like
862,011 views 2 days ago

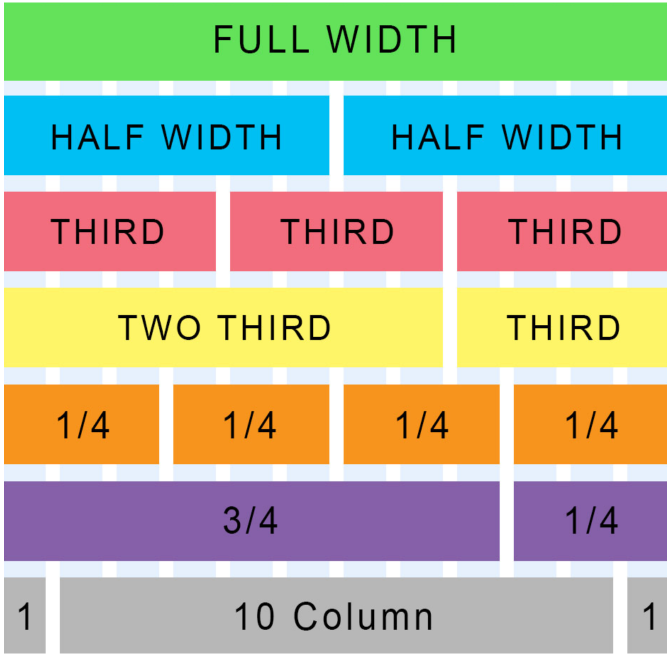
News - Worldwide

Cypriot Banks Reopen Thursday
by VOAvideo

Obama: Shame On Us If We've Forgotten
by Les Grossman

Ashley Judd won't be adding this job to resume
by CNN

Spam row


FULL WIDTH
HALF WIDTH
HALF WIDTH
THIRD
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TWO THIRD
THIRD
1/4
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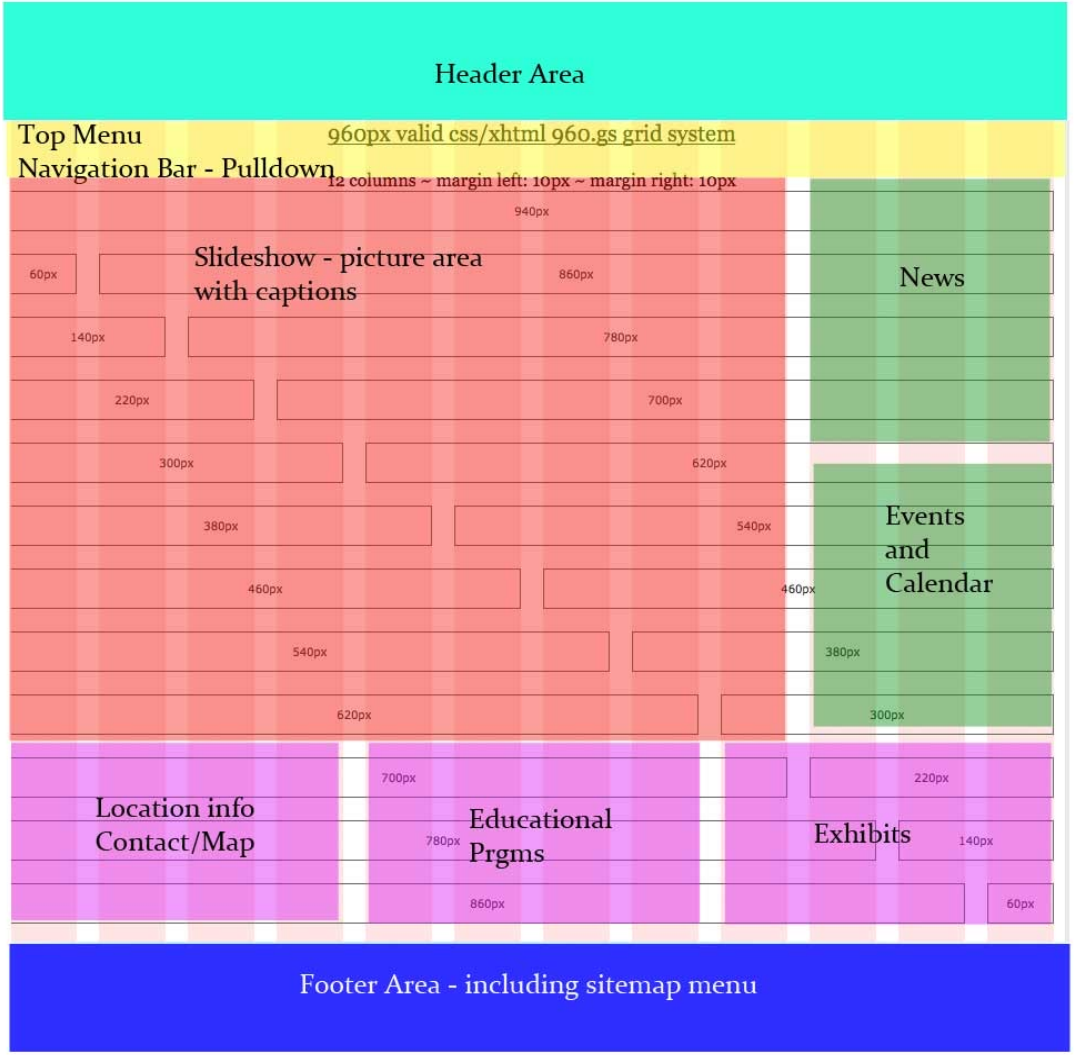
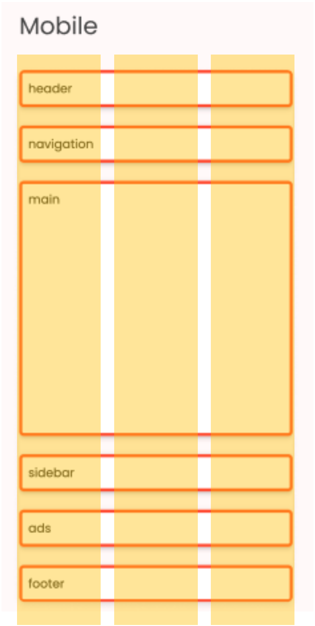
1/4
1/4
3/4
1/4
1
10 Column
1


Header Area
Top Menu
Navigation Bar - Pulldown
960px valid css/xhtml 960.gs grid system
12 columns ~ margin left: 10px ~ margin right: 10px
940px
60px
Slideshow - picture area
with captions
860px
News
140px
780px
220px
700px
300px
620px
Events
and
Calendar
380px
540px
460px
460px
540px
380px
620px
300px
700px
220px
Location info
Contact/Map
780px
Educational
Prgms
Exhibits
140px
860px
60px
Footer Area - including sitemap menu



Mobile

header

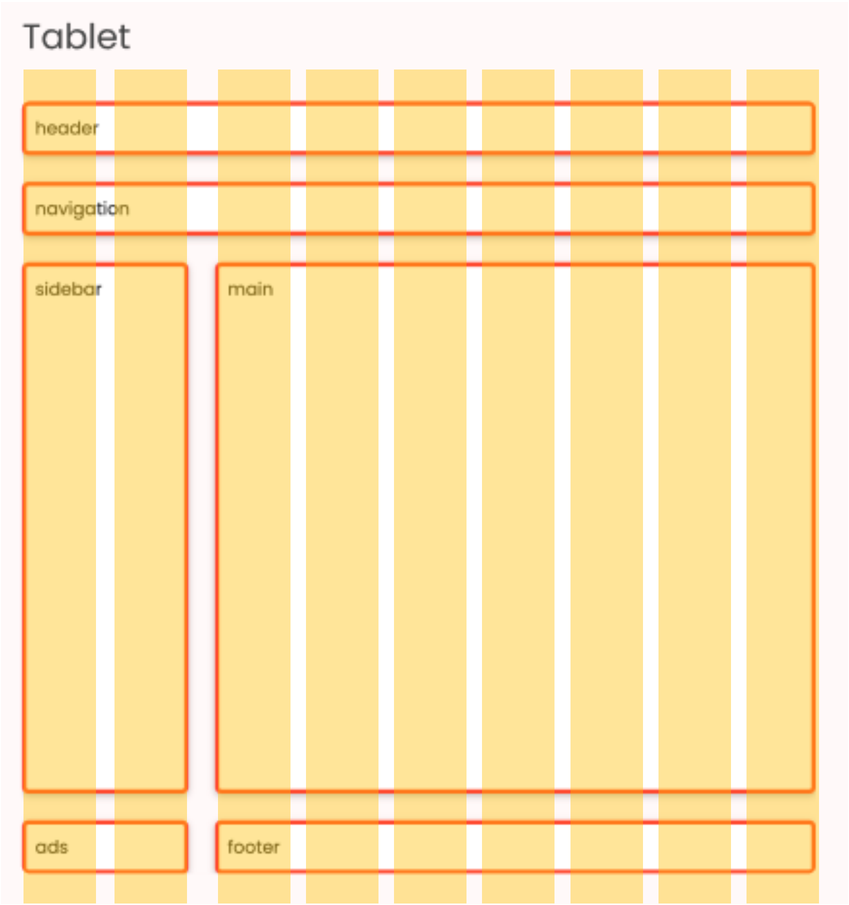
navigation

main

sidebar

ads

footer



Tablet

header

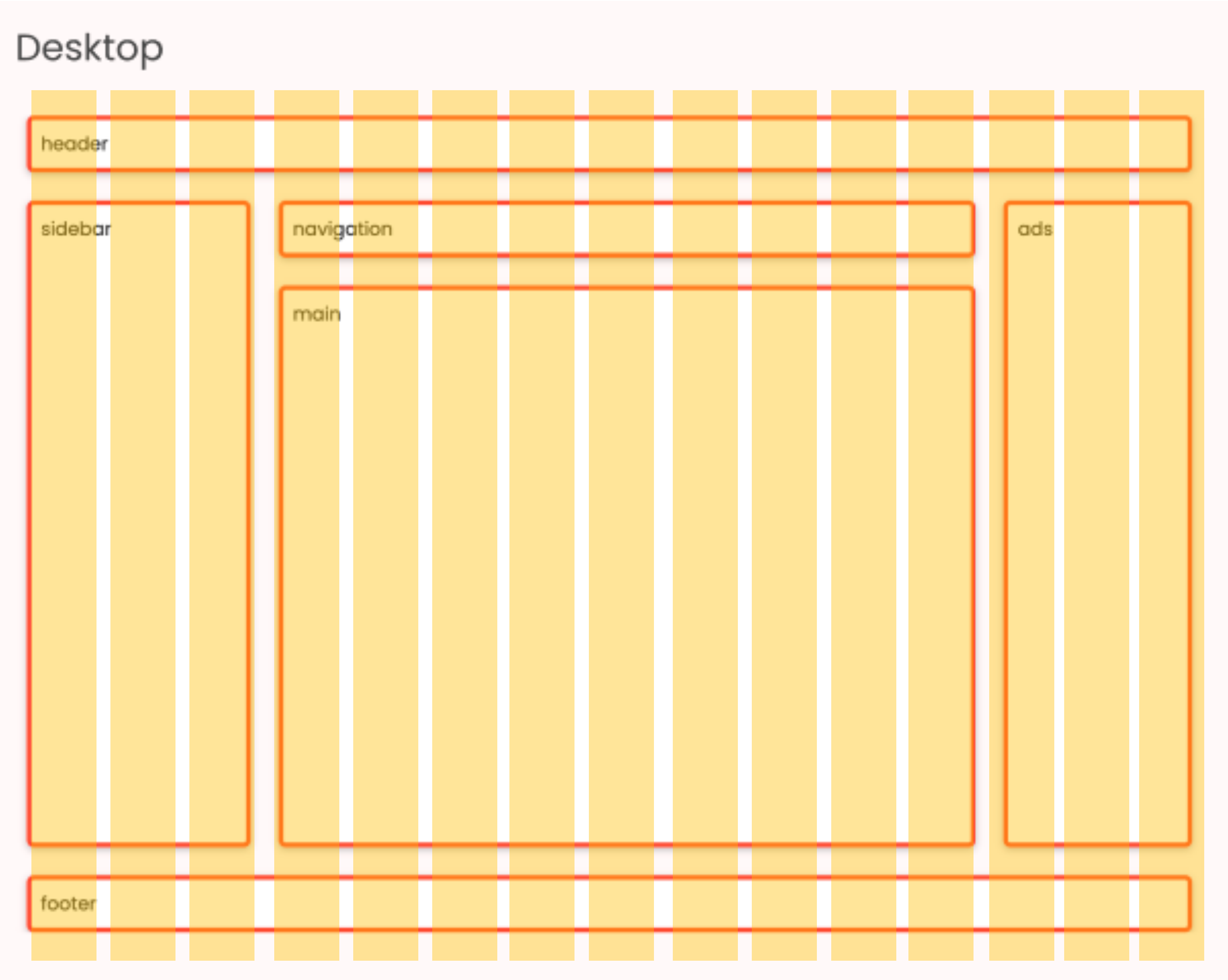
navigation

sidebar

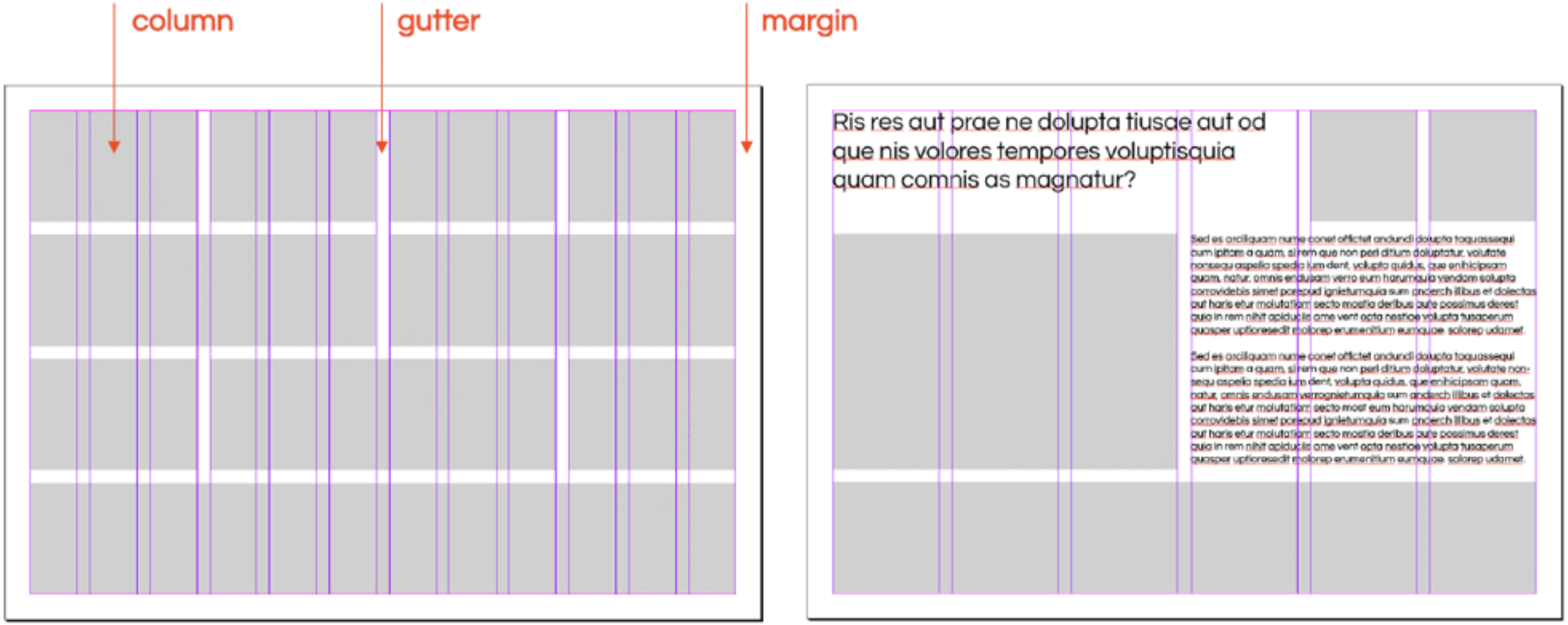
main

ads

footer


Desktop
header
sidebar
navigation
main
ads
footer

Using a **grid system** we always have some pixels gap (**whitespace**) between each **container box** on page



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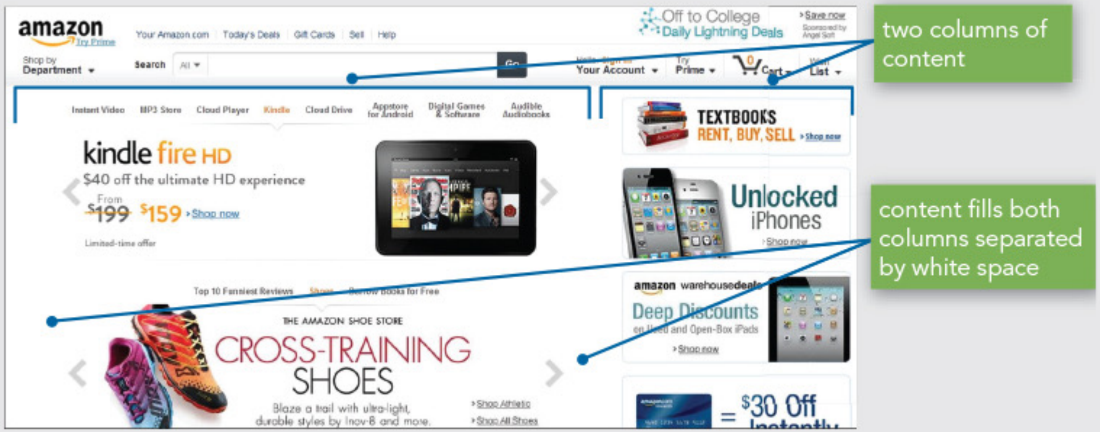
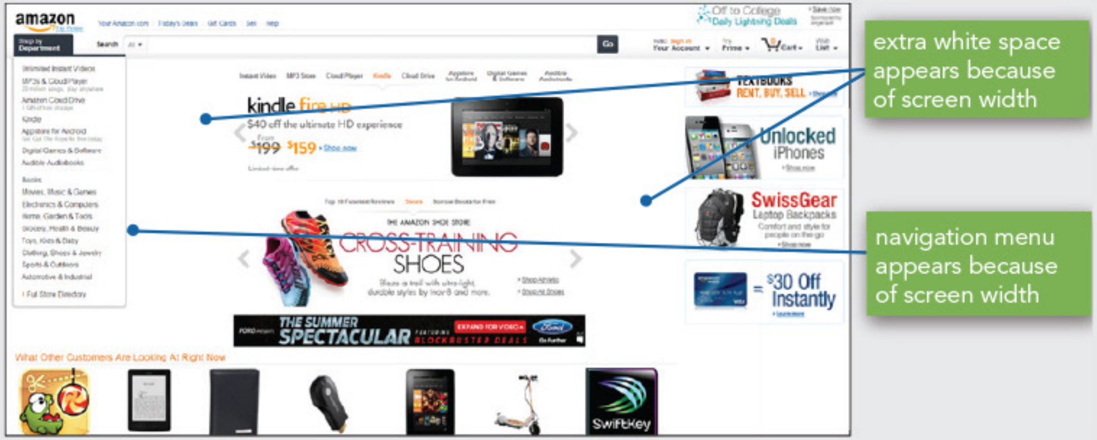


two columns of content

content fills both columns separated by white space

Figure 2-4: Amazon web site using a flexible design at 1366 x 768



extra white space appears because of screen width

navigation menu appears because of screen width

Figure 2-5: Amazon web site using a flexible design at 1920 x 1080

MOBILE SITES

Solutions where site visitors will be routed to **version** that works best on their **device**

If we need a site that works on both **desktop** and **smartphone**, we can make two sites

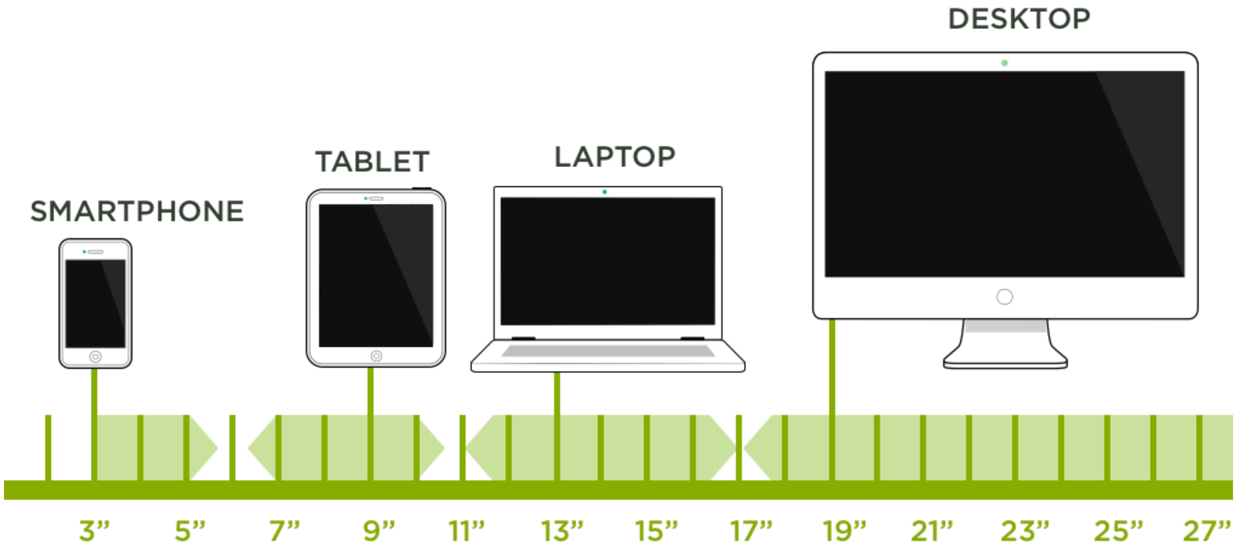
Taking this approach involves also how do we maintain **same content** on **separate sites**?

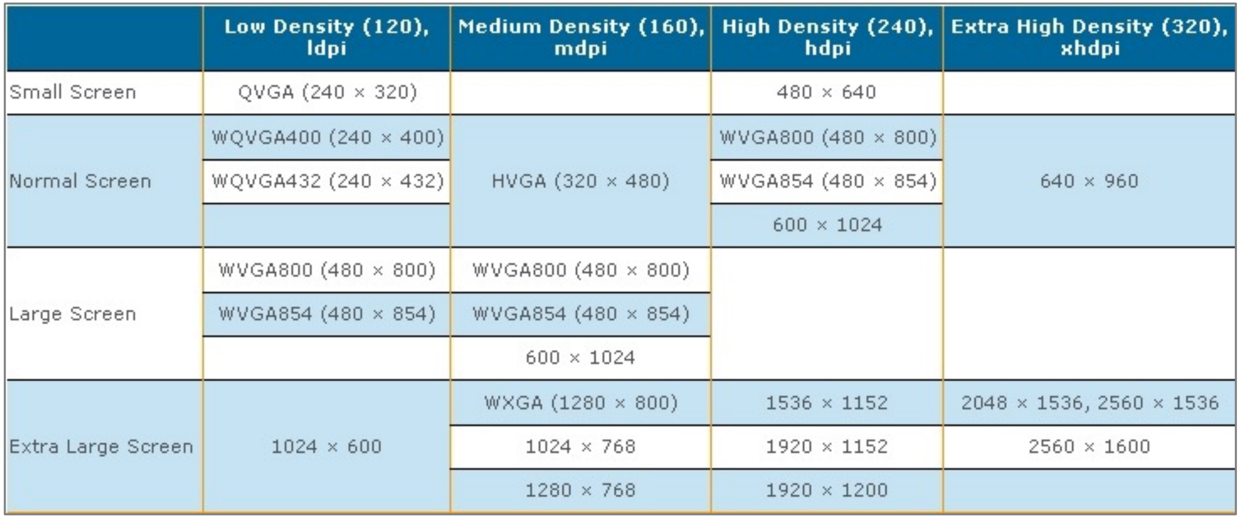
DESIGN FOR MULTIPLE FORM FACTORS

This has forced to **reevaluate** how a site should be designed to present good an **user experience**

- Different variations in **screen size**, **pixel density**, and **form factor**
- Different **operating systems** and **multiple browsers**

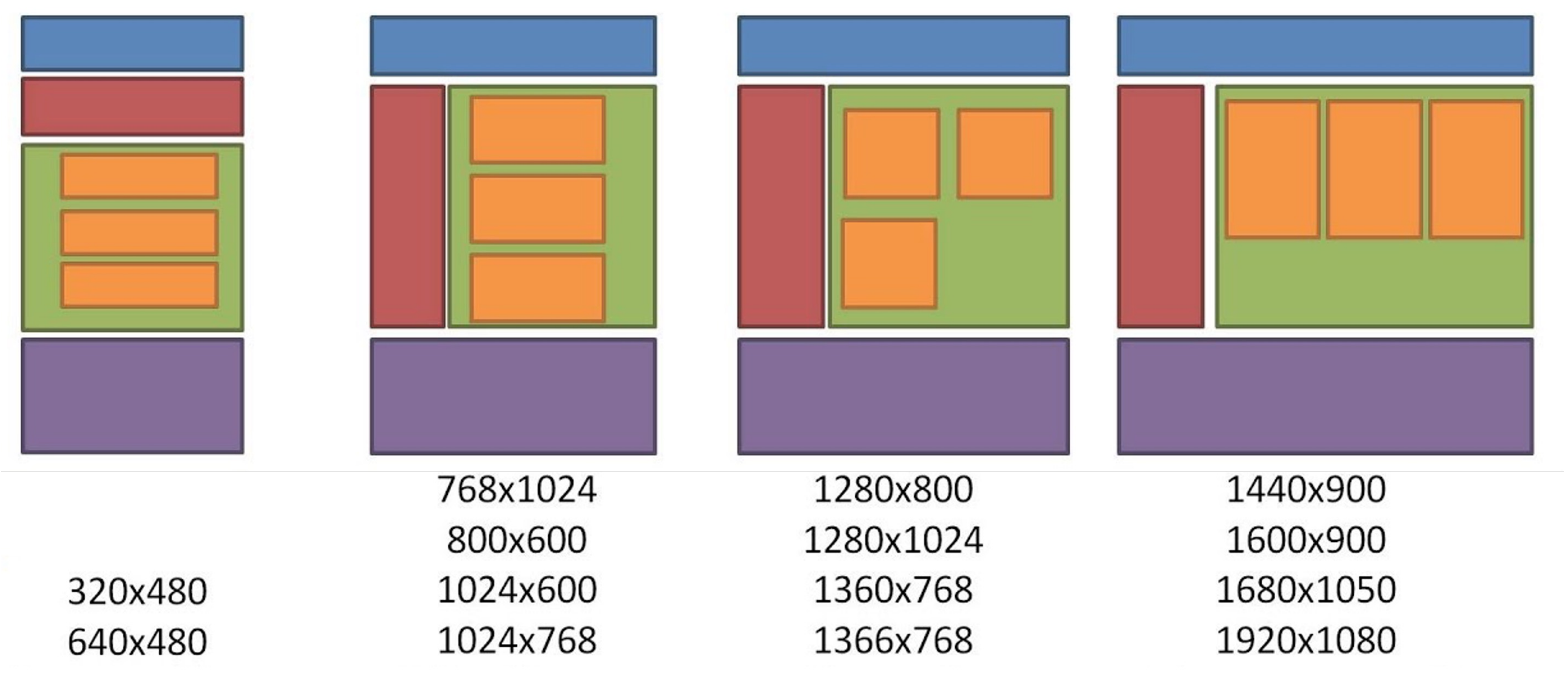
Market for smartphones, tablet, and personal computers have created an **environment** where web sites need to function on devices with **different features**





	Low Density (120), ldpi	Medium Density (160), mdpi	High Density (240), hdpi	Extra High Density (320), xhdpi
Small Screen	QVGA (240 × 320)		480 × 640	
Normal Screen	WQVGA400 (240 × 400)	HVGA (320 × 480)	WVGA800 (480 × 800)	640 × 960
	WQVGA432 (240 × 432)		WVGA854 (480 × 854)	
			600 × 1024	
Large Screen	WVGA800 (480 × 800)	WVGA800 (480 × 800)		
	WVGA854 (480 × 854)	WVGA854 (480 × 854)		
		600 × 1024		
Extra Large Screen	1024 × 600	WXGA (1280 × 800)	1536 × 1152	2048 × 1536, 2560 × 1536
		1024 × 768	1920 × 1152	2560 × 1600
		1280 × 768	1920 × 1200	

Screen sizes



Form factors

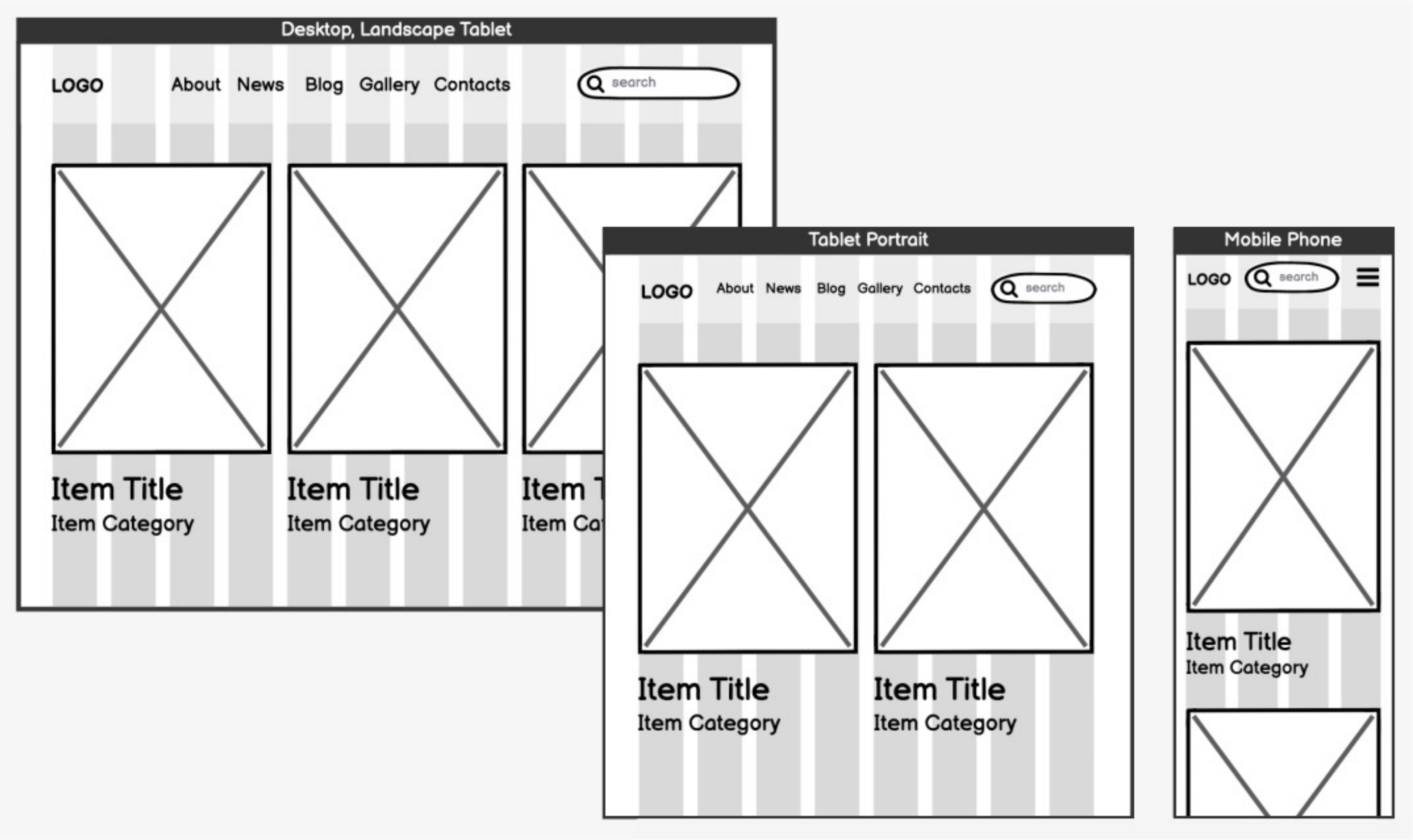
This includes specifying what **type of device** it is such as a tablet, a smartphone, a PC, a smart-TV, a Xbox, or a wearable device

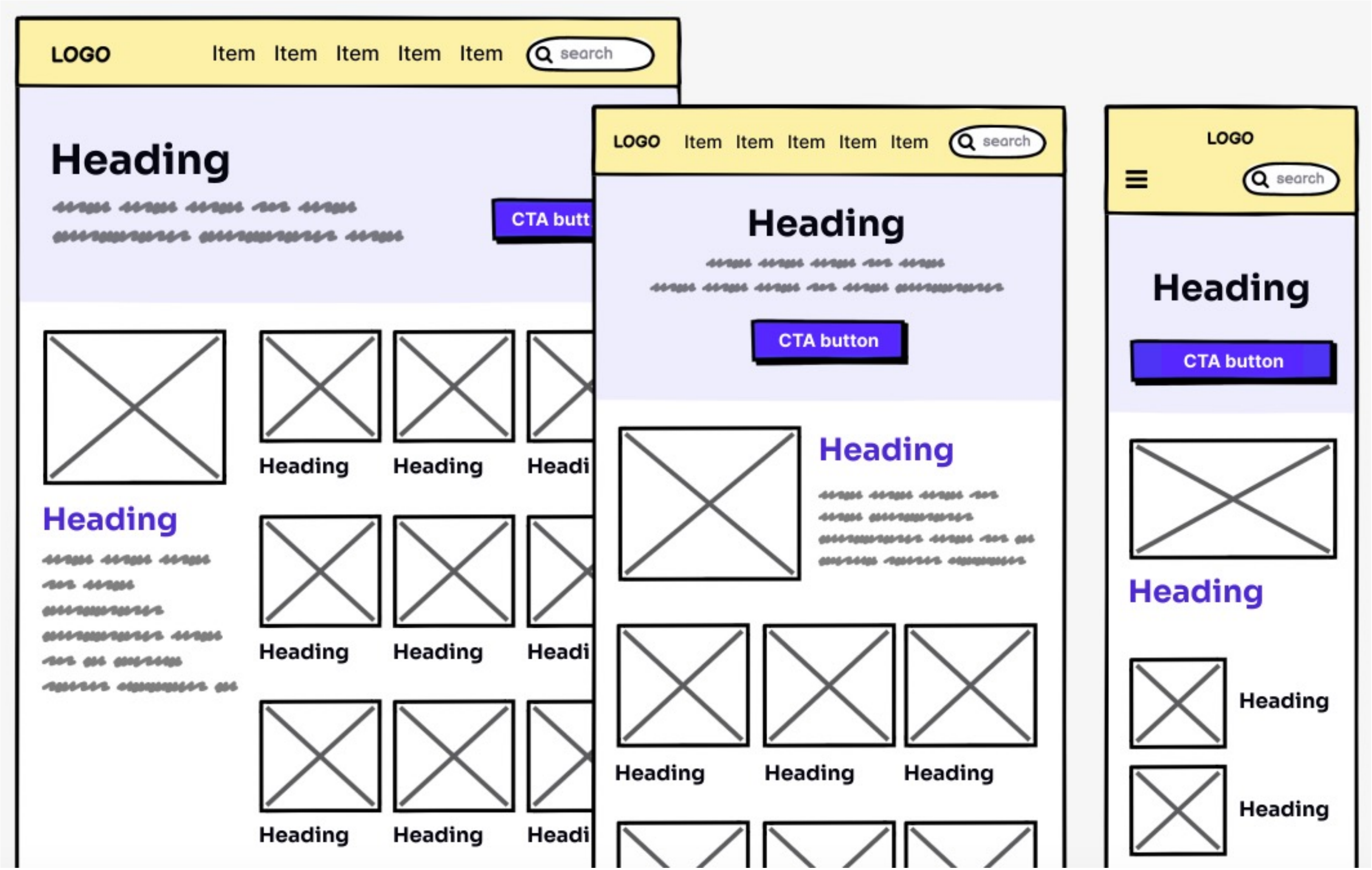
RESPONSIVE DESIGN

If we want to avoid duplicating **efforts**, how do we build sites that work on all **devices**?

Responsive design is a method of combining **fluid layouts** with **media queries** to produce a site that can shift and change depending on current browser window's **resolution**

Fluid layouts




LOGO
Item
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search
Heading
CTA butt
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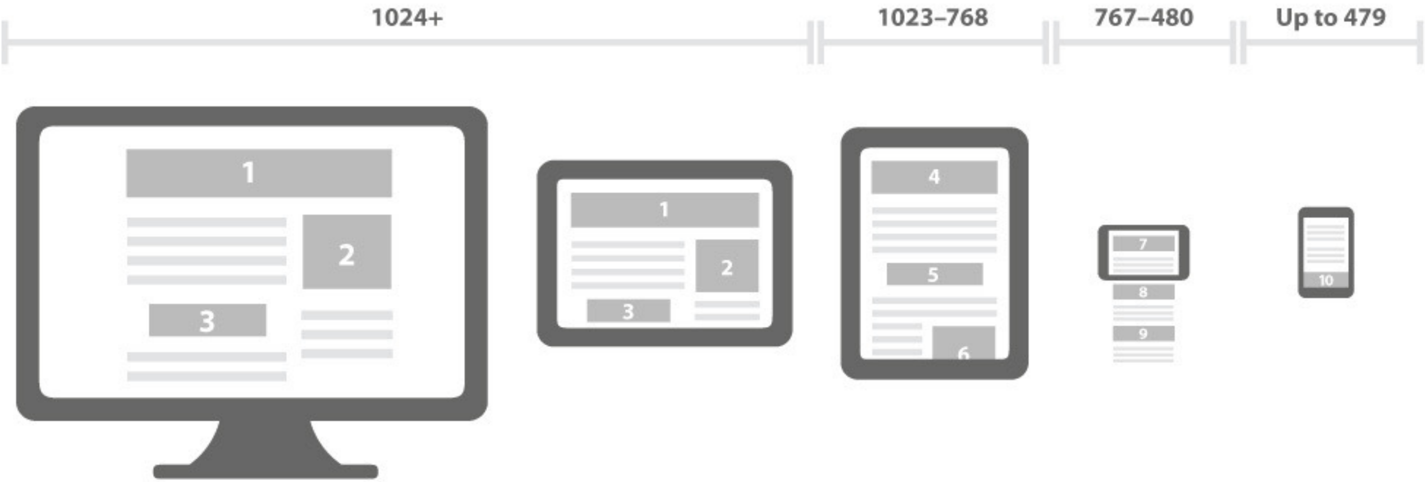
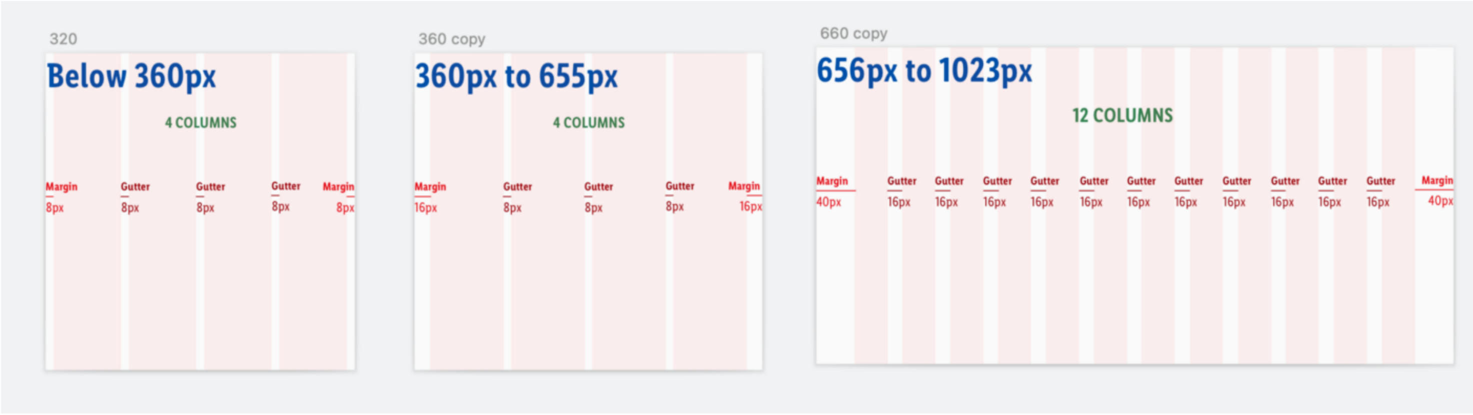
RESPONSIVE DESIGN

Media queries give us **control** over when **styles** are applied and how

- They can be used to **detect** if user device is in landscape or portrait **orientation**
- They can create a **breakpoint**, where the **fluid layout** will change based upon new **styles** for that **resolution**

Media queries





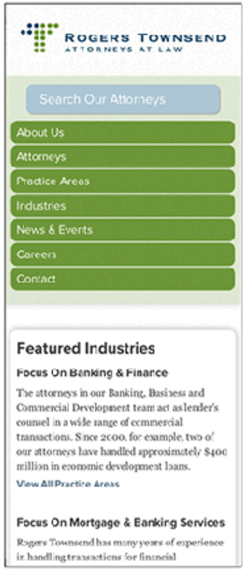
RESPONSIVE DESIGN

It is completely **resolution-independent** and it allows for **one codebase** across all devices

Instead of focusing on **resolutions** of each device, we can create **breakpoints** for **content** and **design**

We could look for **resolutions** where **fluid layout** starts to **break down**, and create **breakpoints** to handle **transitions** between differing **page widths**

~350px



Featured Industries

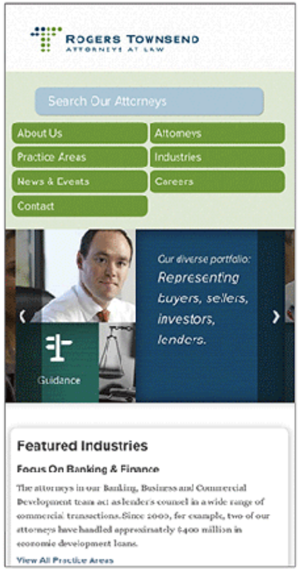
Focus On Banking & Finance

The attorneys in our Banking, Business and Commercial Development team act as lender's counsel in a wide range of commercial transactions. Since 2000, for example, two of our attorneys have handled approximately $400 million in economic development loans.

Focus On Mortgage & Banking Services

Rogers Townsend has many years of experience in handling transactions for financial

~500px

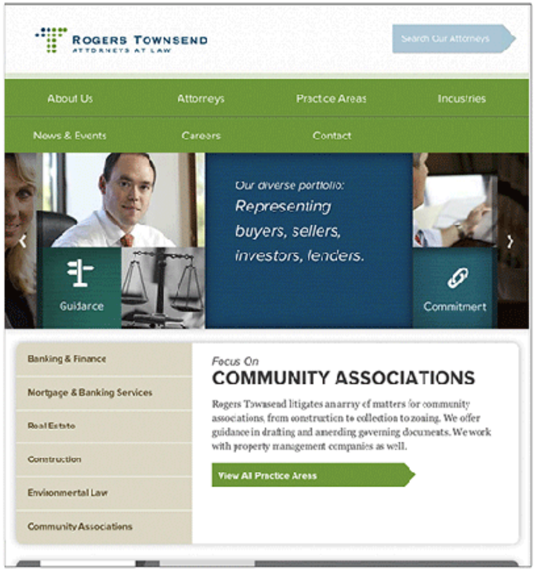


Featured Industries

Focus On Banking & Finance

The attorneys in our Banking, Business and Commercial Development team act as lender's counsel in a wide range of commercial transactions. Since 2000, for example, two of our attorneys have handled approximately $400 million in economic development loans.

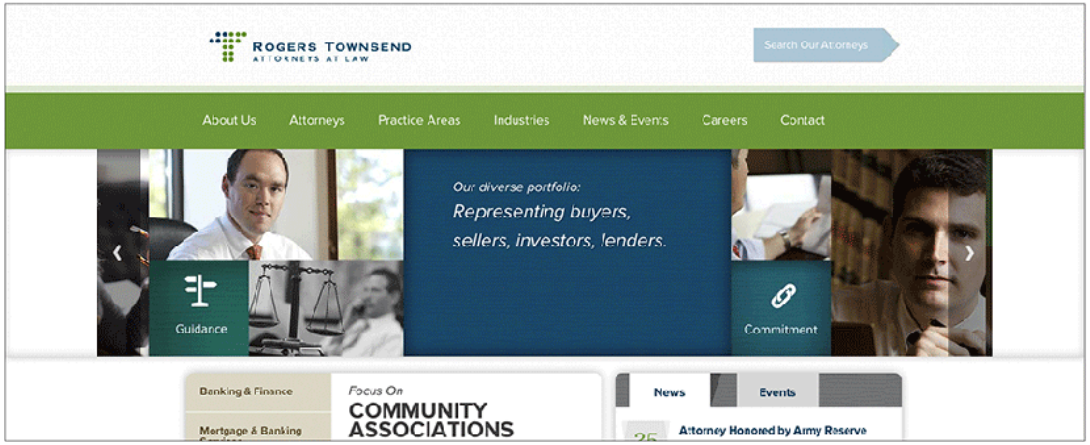
~800px



Focus On
COMMUNITY ASSOCIATIONS

Rogers Townsend litigates an array of matters for community associations, from construction to collection to zoning. We offer guidance in drafting and amending governing documents. We work with property management companies as well.

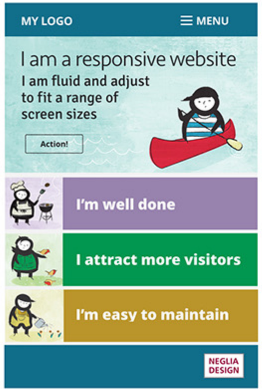
~1200px



Responsive Design

We are obligated to think about how **content** will appear on a huge **range of devices**

- How will we **show** content on a mobile phone that fills a desktop monitor?
- If we have to **cut down** on content, what will we want to display on phone?
- If certain content is **unsuitable** for phone, should we display it on desktop version?


MY LOGO ☰ MENU

I am a responsive website

I am fluid and adjust to fit a range of screen sizes

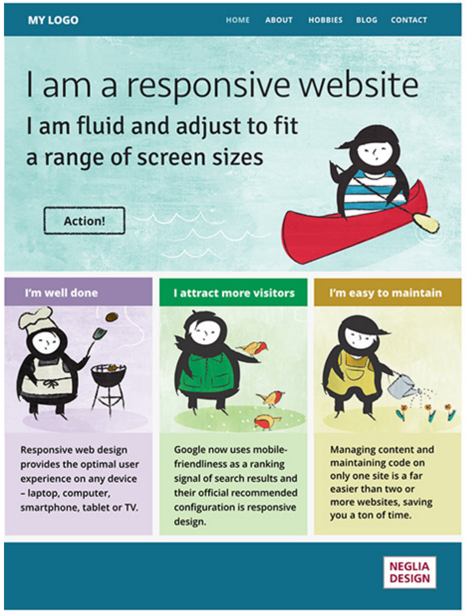
Action!

I'm well done

I attract more visitors

I'm easy to maintain

NEGLIA DESIGN


MY LOGO HOME ABOUT HOBBIES BLOG CONTACT

I am a responsive website

I am fluid and adjust to fit a range of screen sizes

Action!

I'm well done

Responsive web design provides the optimal user experience on any device – laptop, computer, smartphone, tablet or TV.

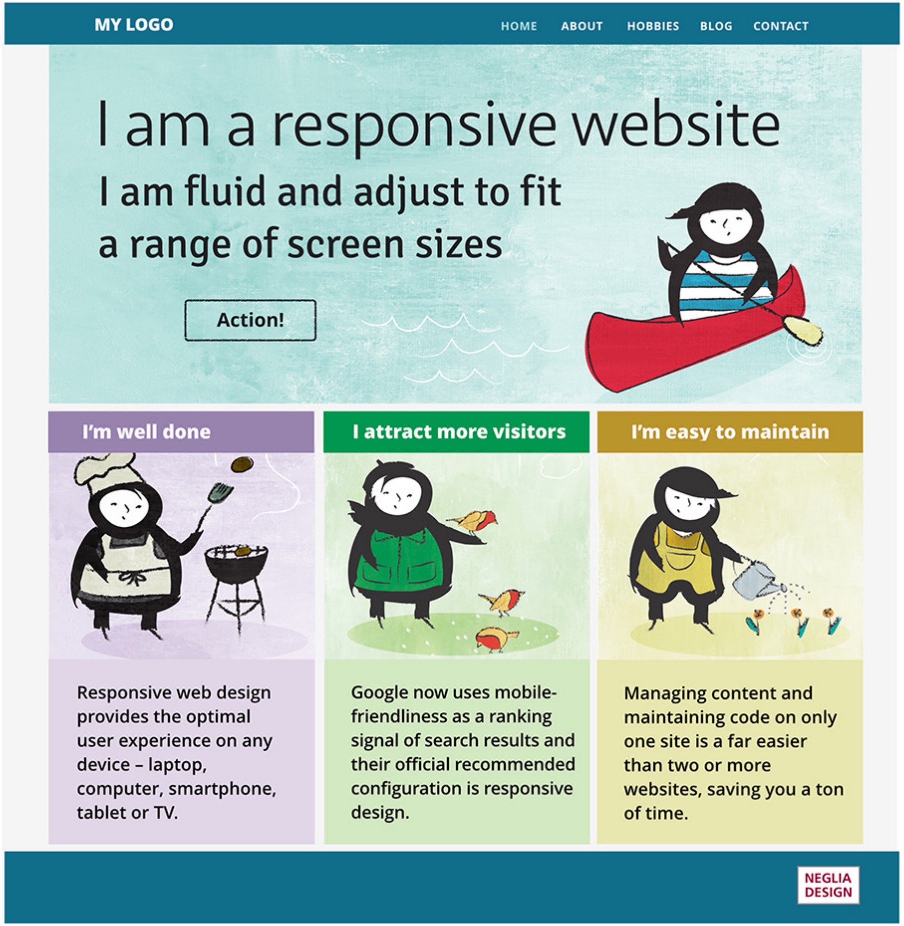
I attract more visitors

Google now uses mobile-friendliness as a ranking signal of search results and their official recommended configuration is responsive design.

I'm easy to maintain

Managing content and maintaining code on only one site is a far easier than two or more websites, saving you a ton of time.

NEGLIA DESIGN


MY LOGO HOME ABOUT HOBBIES BLOG CONTACT

I am a responsive website

I am fluid and adjust to fit a range of screen sizes

Action!

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NEGLIA DESIGN

RESPONSIVE DESIGN

Responsive design development requires a change in **approach** for designing a website

With **static-width** layouts, only when design is **complete** do we even think about **markup**

When designs have to adapt to multiple **form factors** and **resolutions**, we're required to give more consideration to **markup**