

Introduction to Stanford's Responsive Drupal Themes: Open Framework and Stanford Framework

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Stanford | Web Services



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Drupal at Stanford

There are several ways to have a Drupal website at Stanford.

- **AFS**
<http://afs.stanford.edu>
- **Collaboration Tools Installer**
<http://tools.stanford.edu>
- **Stanford Sites**
<http://sites.stanford.edu>



Centralized Tools and Resources



Centralized Tools and Resources

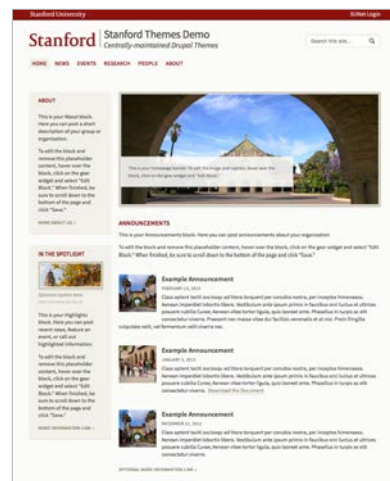
- Technical training
- Self-help web services and documentation
- Stanford Sites hosting service
- Stanford-specific Drupal features
- Drupal themes
- And much more.

What is a Drupal theme?

The look and feel of your site.

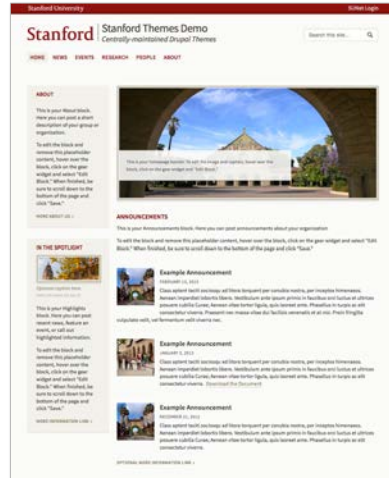
The “Skin.”

The design, *separate* from content.

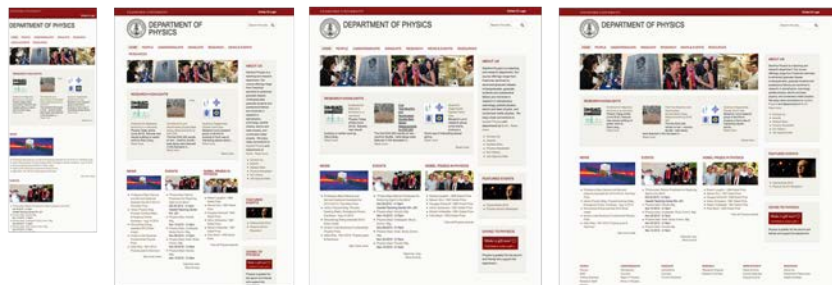


Our themes are:

- Centrally maintained
- Accessible
- Standards compliant
- Mobile responsive
- Stanford branded



We want to make it easy.



In this talk, we will cover:

- What we mean by responsive
- How we developed our themes
- How our theme stack is structured
- Which theme is right for you
- How to create a subtheme

What is Responsive Web Design?

Back in the day...



But now...



an explosion of devices!

Source: <http://mobiforge.com/developing/story/device-diversity> and <http://jquerymobile.com>

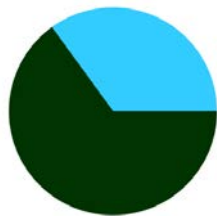
Device diversity

We can't predict the **device of the future.**

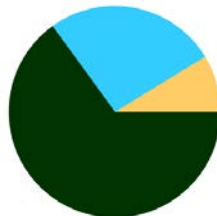
How can we know what **size** of device we are designing for?



"Mobile" Trends



35% of American adults own a smartphone



25% of smartphone users say they **only** use their phone to browse the web

Source: Pew Internet & American Life Project – <http://www.pewinternet.org/Reports/2011/Smartphones.aspx>

In an ideal world...

A custom experience for every device.



We go responsive.

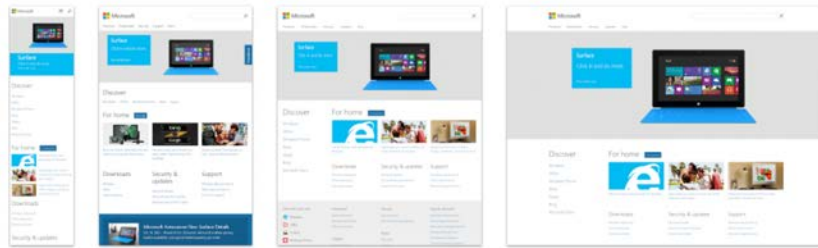


same content reused for each screen size

Sparkbox website at different browser sizes (from <http://mediaqueri.es>)

"Responsive"

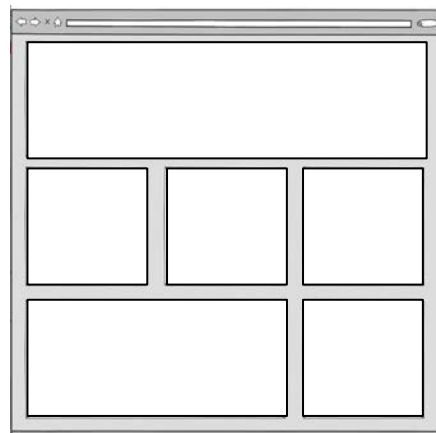
A **design** that responds to the **size** of the browser or device.



Microsoft website at different browser sizes (from <http://mediaqueri.es>)

"Design"

We mostly mean **layout** when referring to "design" in RWD.



A single code base

Creating **one website**, and displaying it in different ways.



Atlanta Ballet website at different browser sizes (from <http://mediaqueri.es>)

Embrace Flexibility

RWD is a **philosophy** and a **practice**.

By embracing the inherent flexibility of the web, we can design for the future.



**How do you implement
Responsive Web Design?**

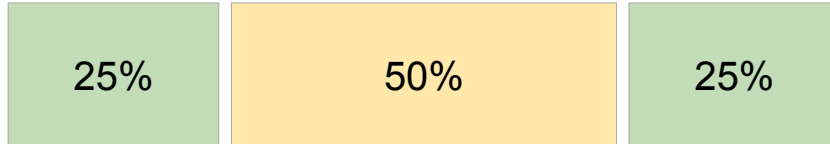
Flexible Grid-Based Layout

Flexible Images and Media

Media Queries

Flexible Grid

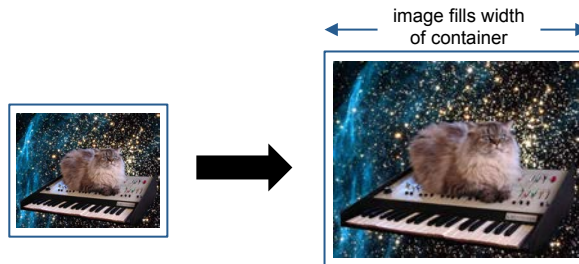
Express your layout **proportionally**.



Be **flexible** — not pixel-perfect.

Flexible Media

Flexible **containers constrain proportions** of images and media by using `max-width:100%;`



Media Queries

Detect your **device screen width**, then load different styles.

```
@media screen and (max-width: 480px) {  
  .mything {  
    width:100%;  
  }  
}  
  
@media screen and (max-width: 1200px) {  
  .mything {  
    width:30%;  
  }  
}
```

What should you consider when designing responsive websites?

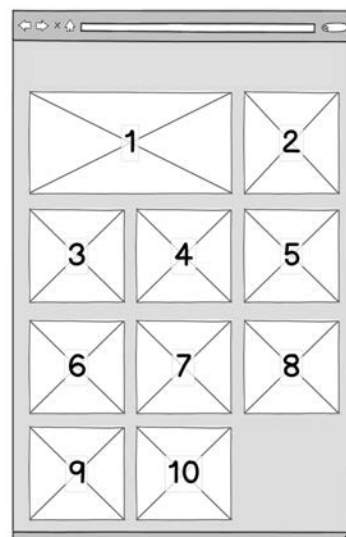
Responsive Layouts

Are about preserving
content hierarchy
and **legibility**.

Content Hierarchy

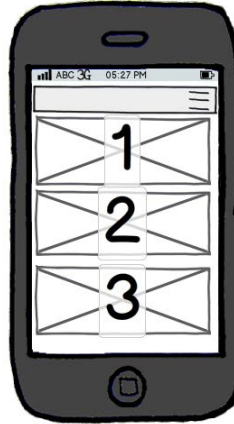
What content is **most important**?

Give it emphasis through **size** and **order**.



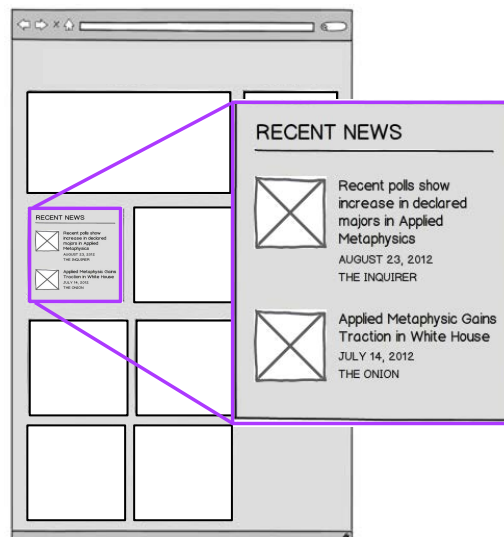
Preserve Content Hierarchy

On **small** devices,
what shows up **first**?



Legibility

Legibility of **text**,
but also "legibility"
of **micro-layouts**.

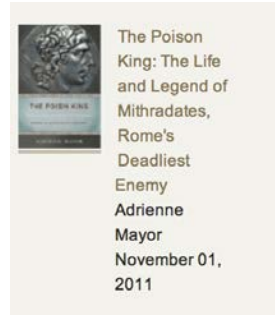


Preserve legibility

Don't let things get too **squished** or **stretched**!



normal



squished

Preserve legibility

A **good** solution:



normal

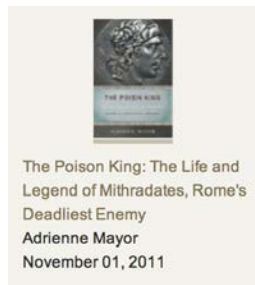
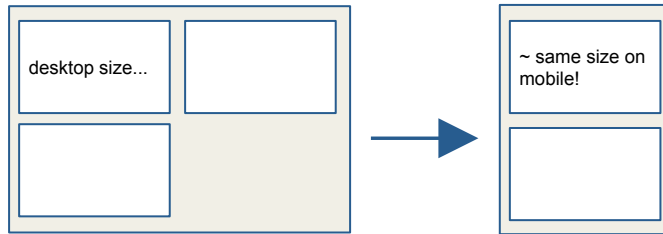


image on top

Preserve legibility

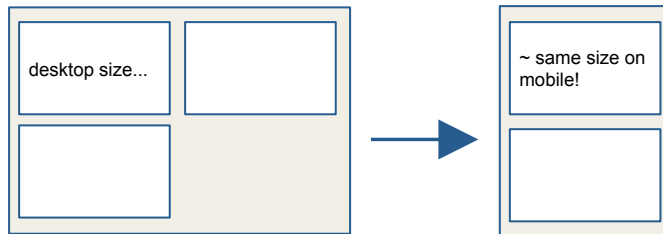
An even **better** solution...

Build a responsive theme that **never requires a drastic size adjustment** of micro-layouts.



Preserve legibility

The holy grail?

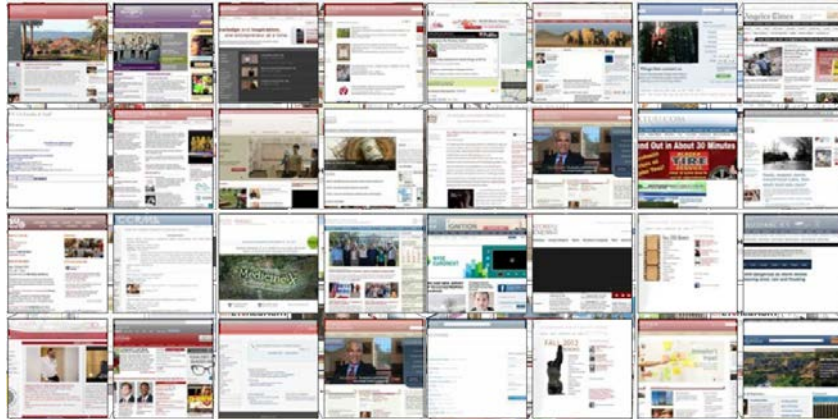


"Content First"

Considering preservation of
content hierarchy and **legibility**
as a top priority.

How we developed our themes

We surveyed lots of sites at Stanford



STANFORD UNIVERSITY DEPARTMENT OF PHYSICS

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RESEARCH HIGHLIGHTS

- Evidence for Majorana fermions in a superconductor: Physics Today article (June 2012) features new results building on earlier work by Read more
- First Two Neutrons and Deuterium: Double Beta Decay Measurements by EXO-200: The first EXO-200 results set new standards. Read more
- Quantum Optomechanics: Quantum Forces: One group is the first to produce a new use of entangling optical atoms. Read more

NEWS

- Professor Alan Guth and Bernard Schutz Awarded the 2012 AAS/J. Planetary Prize
- Water Physics Blog: Physics Coating Water: Emergency Power, California - Aug 14 2012
- Shoucheng Zhang awarded 2012 Clay Medal
- Andre-Louis Renfrew: Fundamental Physics Prize
- Judy Ross, 1951-2012: Physics past & Present

EVENTS

- Physicists Receive Honorary Degrees for Restoring Sight to the Blind: Oct 22 2012 - 4:00pm
- Harvard Teaching Center Vis. 2011: Physics Dept. Faculty Wg. Nov 14 2012 - 3:00pm
- Physics Dept. Undergrad. Study Comm. Mtg. Nov 28 2012 - 3:00pm
- Physics Dept. Grad. Study Comm. Mtg. Nov 28 2012 - 3:00pm
- Physics Dept. Faculty Wg. Dec 12 2012 - 3:00pm

NOBEL PRIZES IN PHYSICS

- Robert Laughlin: 1998 Nobel Prize
- Steven Chu: 1997 Nobel Prize
- Jingdong Chen/Chen: 1996 Nobel Prize
- Arthur Schuster: 1991 Nobel Prize
- Robert Holmberg: 1981 Nobel Prize
- Felix Bloch: 1952 Nobel Prize

ABOUT US

Stanford Physics is a teaching and research department. Our diverse offerings range from Freshman seminars to advanced graduate courses. Undergraduates, graduate students and postdoctoral fellows are involved in research in astrophysics, cosmology, particle physics, atomic and laser physics, and condensed matter physics. We enjoy close connections to Applied Physics and departments at SLAC.

- Contact Us
- Academy
- Research Sites
- Physics Newsletter
- Our History
- Job Opportunities

FEATURED EVENTS

- Colloquium 2012
- Physics Alumni Reception

GOING TO PHYSICS

Make a gift and click here to make a gift

Physics is grateful for the alumni and friends who support the department.

PEOPLE
Faculty
Staff
Visiting Scholars
Research Staff
Alumni

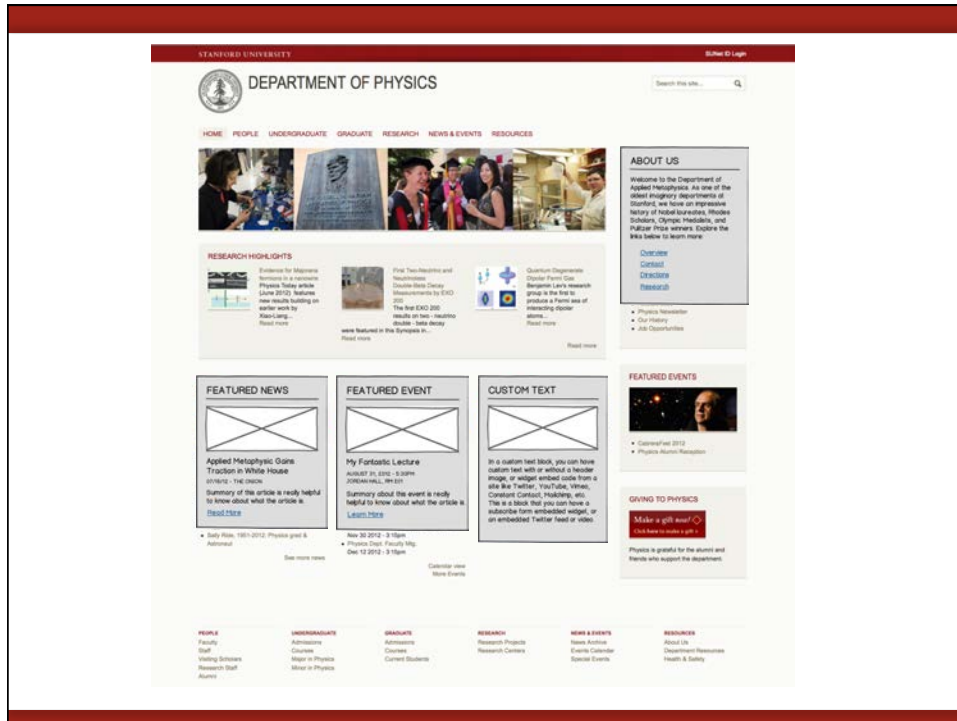
UNDERGRADUATE
Admissions
Courses
Major in Physics
Minor in Physics

GRADUATE
Admissions
Courses
Current Students

RESEARCH
Research Projects
Research Centers

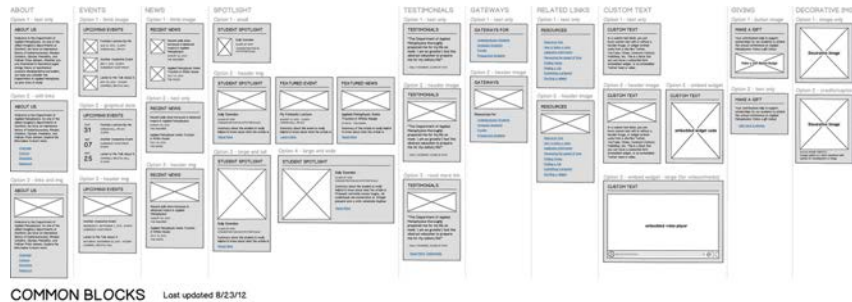
NEWS & EVENTS
News Archive
Events Calendar
Special Events

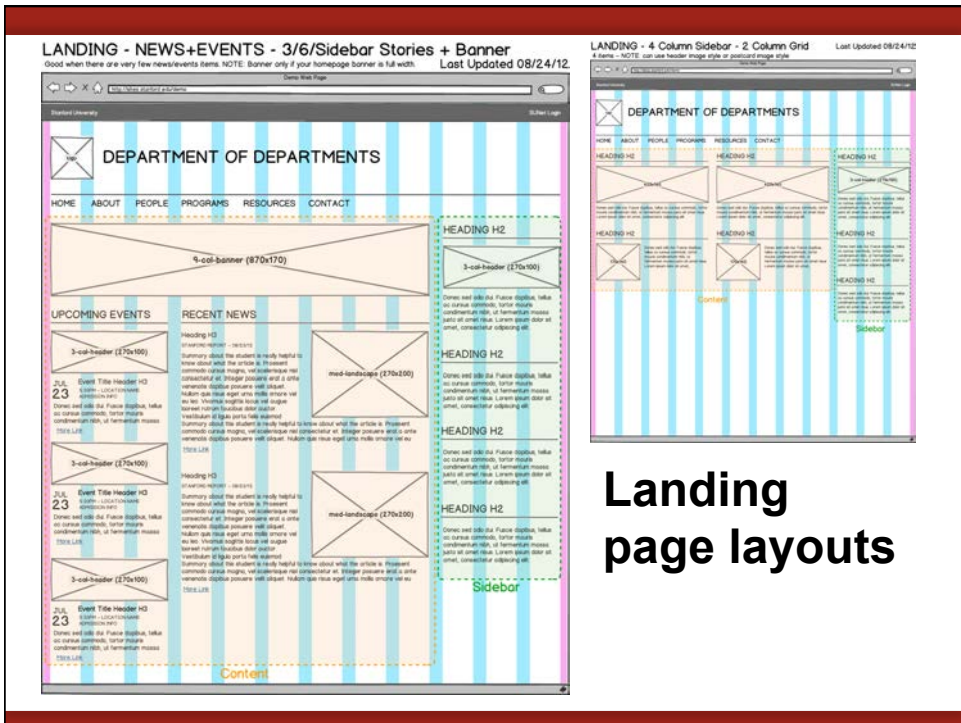
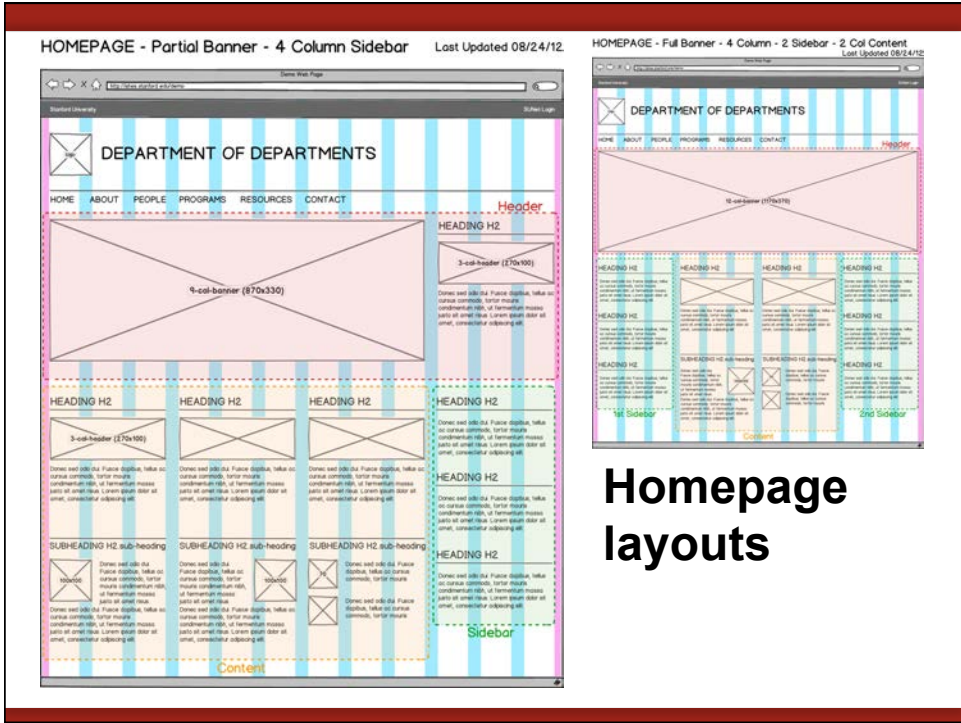
RESOURCES
About Us
Department Resources
Health & Safety



We started with content

We developed a "layout library" — sets of common layouts that we needed to support.





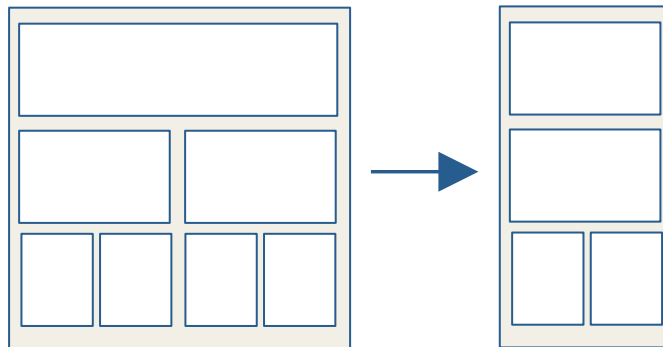
SUBPAGE - 4 Column - 2 Sidebars Last Updated 08/24/12

SUBPAGE - 4 Column - 1 Sidebar + Table Last Updated 08/24/12

Subpage layouts

Articulating responsive behavior

We created a set of **responsive flow wireframes**.



1200 (wide desktop) 980 (normal desktop) 768 (small desktop) 640 (tablet)

480 (phone)
min-span=12
menu collapses

1200 (wide desktop) 980 (normal desktop) 768 (small desktop) 640 (tablet)

480 (phone)
min-span=12
menu collapses

One and two sidebars

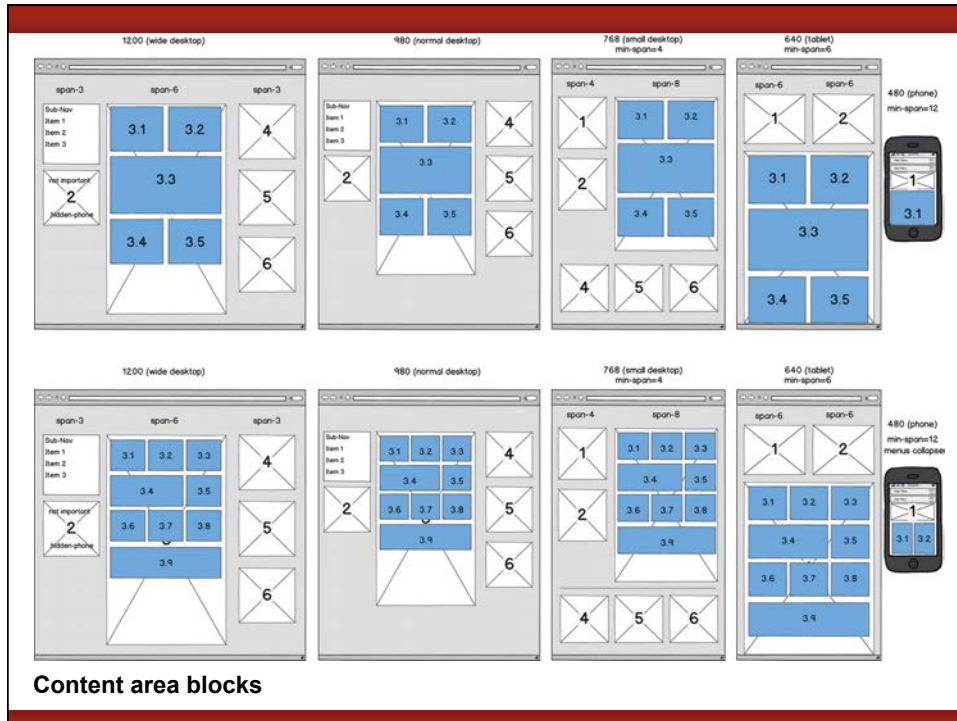
1200 (wide desktop) 980 (normal desktop) 768 (small desktop) 640 (tablet)

480 (phone)
min-span=12
menu collapses

1200 (wide desktop) 980 (normal desktop) 768 (small desktop) 640 (tablet)

480 (phone)
min-span=12
menu collapses

No sidebars



This is complicated!

Can we find a way to support all this **sophisticated behavior** in a theme?

Can we make it **easy to implement** for site builders and content creators?

Our Solution

Open Framework uses new **responsive block regions** to add sophisticated responsive behaviors in an easy-to-use fashion.

Blocks and **regions** are native to Drupal, so we capitalized on that.

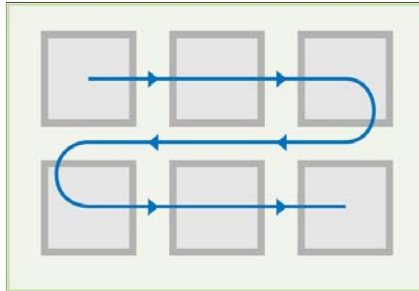
Sophisticated responsive behaviors

Open Framework provides support for two conflicting responsive patterns:

- **Row preference**
- **Column preference**

Row Preference

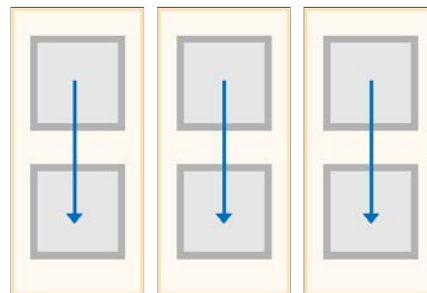
Row preference forces elements to bump other elements down when the screen gets smaller.



We call these "**flow**" regions.

Column Preference

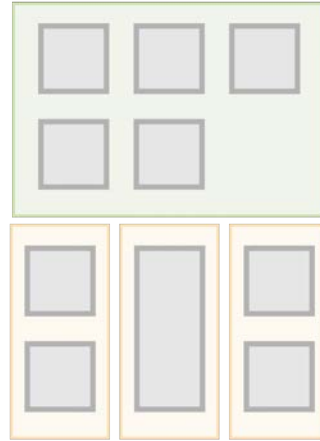
Column preference forces elements to stack side-by-side in columns.



We call these "**stacked**" regions.

A combination approach

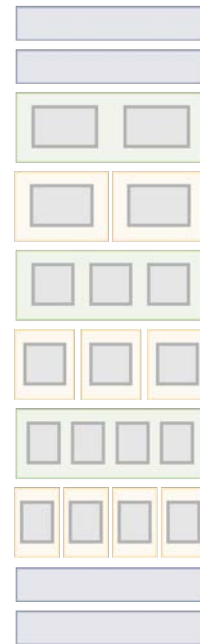
Through a combination of **stacked** and **flow** region behaviors, we can create **complex layouts** that respond well at every breakpoint.



New responsive regions

New set of **responsive regions** that support "**flow**" and "**stacked**" behavior.

Content placed in specific block regions will **respond based on that region's pre-defined behavior.**



Drupal-specific styles support

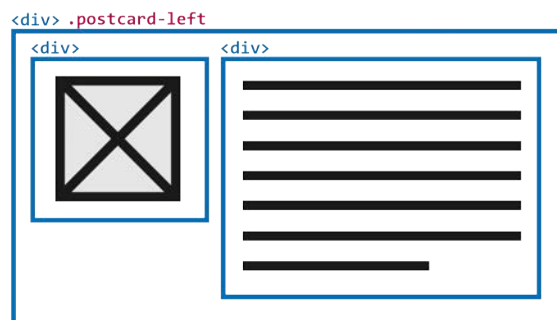
Open Framework takes the basics of Twitter Bootstrap and adds in **Drupal-friendly, semantic styles**.

Some examples:

- `.more-link`
- `.descriptor`
- `.border-simple`

Support for common micro-layouts

We have developed a set of **styles** and **implementation strategies** for common micro-layouts we refer to as "**postcard**" layouts.



Support for common micro-layouts

We have developed a set of **styles** and **implementation strategies** for common micro-layouts we refer to as "**postcard**" layouts.

```
<div class="postcard-left">
  <div>left</div>
  <div>right</div>
</div>
```

.postcard-left



.postcard-left floats two divs side-by-side, and does not allow wrapping. You can use this to do "image on the left, text on the right" layouts. Postcard layouts are micro-layouts where you want thumbnail images, or other elements next to a block of text. We have built support for micro-layouts into the Open Framework theme through this postcard implementation strategy.



.postcard-left-wrap floats two divs side-by-side, and allows for wrapping. You can use this to do "image on the left, text on the right" layouts. Postcard layouts are micro-layouts where you want thumbnail images, or other elements next to a block of text. We have built support for micro-layouts into the Open Framework theme through this postcard implementation strategy.

.postcard-left-wrap

.postcard-right



.postcard-right floats two divs side-by-side, and does not allow wrapping. You can use this to do "image on the right, text on the left" layouts. Postcard layouts are micro-layouts where you want thumbnail images, or other elements next to a block of text. We have built support for micro-layouts into the Open Framework theme through this postcard implementation strategy.



.postcard-right-wrap floats two divs side-by-side, and allows for wrapping. You can use this to do "image on the right, text on the left" layouts. Postcard layouts are micro-layouts where you want thumbnail images, or other elements next to a block of text. We have built support for micro-layouts into the Open Framework theme through this postcard implementation strategy.

.postcard-right-wrap




A truly Drupal style guide

Open Framework has a **sortable style guide**.

Filter by Category

- Button
- Clear
- Code
- Container
- Form
- Icon
- Image**
- Link
- List

Apply Reset

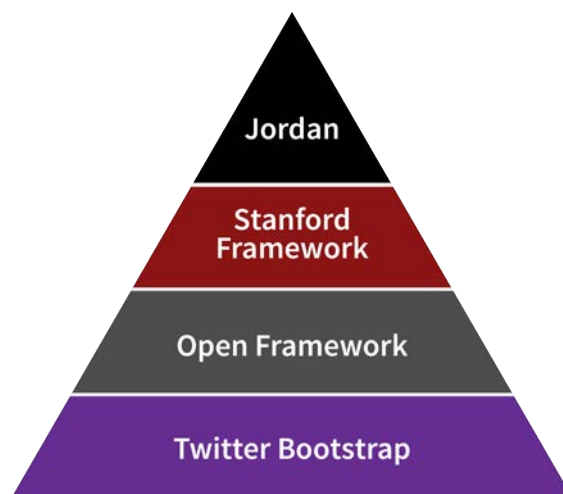
Category	Name of Style	CSS Class	HTML Elements Applied To	Example	Example Code
Image	Border Simple	.border-simple	<div>, <p>, 		<pre><p class="border-simple"> </p></pre>
Image	Border Simple No Width	.border-simple-nowidth	<div>, <p>, 		<pre><p class="border-simple-nowidth"> </p></pre>
Image	Border Shadow	.border-shadow	<div>, <p>, 		<pre><p class="border-shadow"> </p></pre>

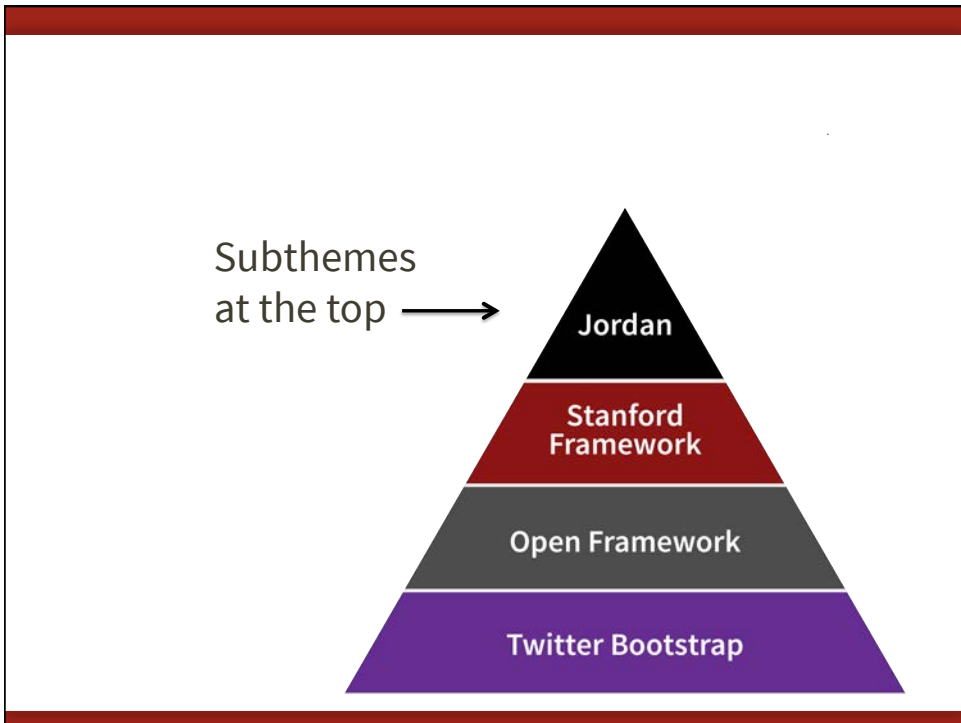
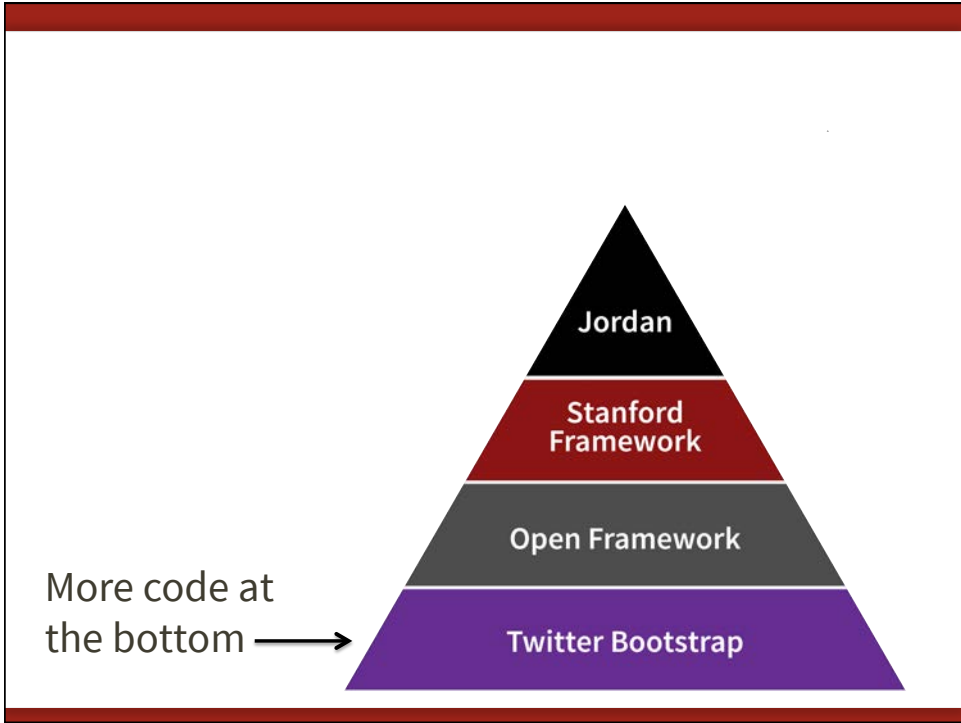
Let's take a look...

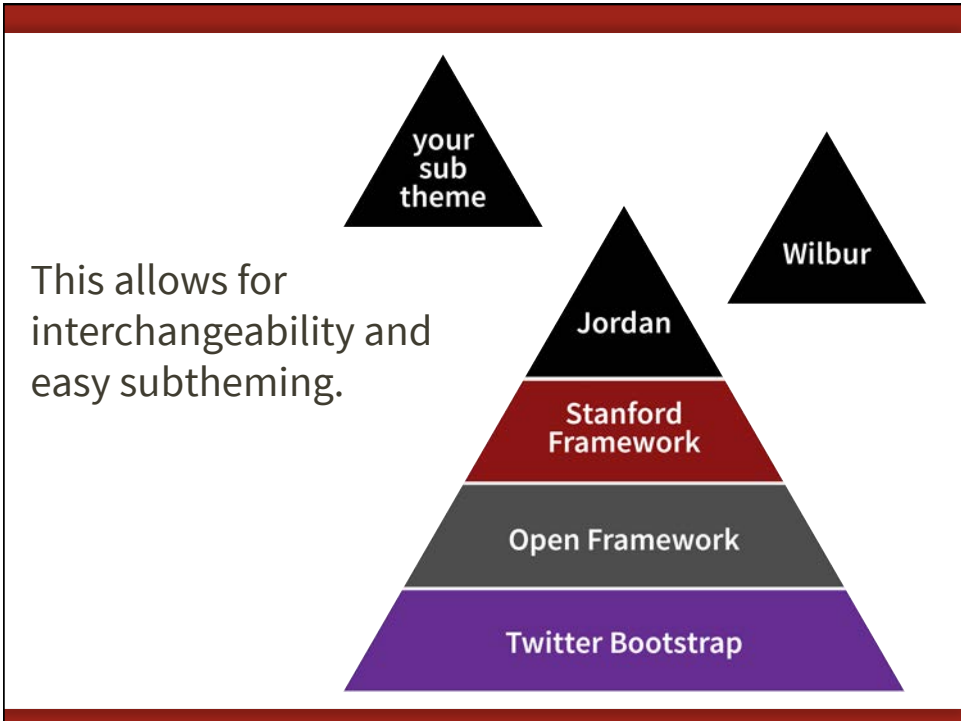
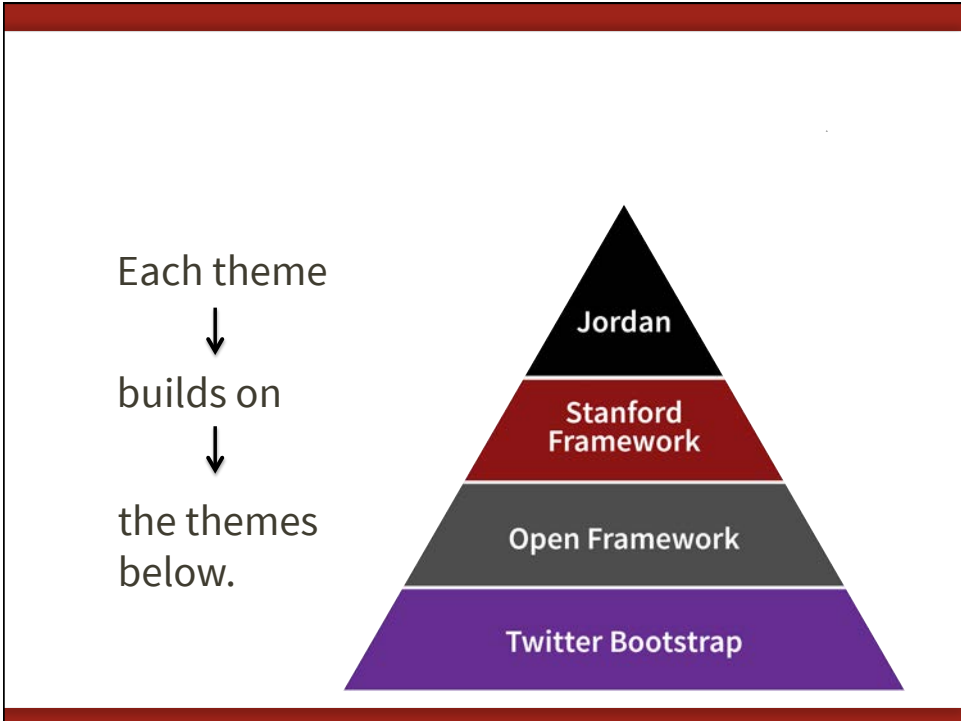
<http://openframework.stanford.edu>

The Stanford Theme Stack

Stanford's Drupal Themes







Twitter Bootstrap

- Base styles
- Responsive behaviors

Note: This is NOT a Drupal theme! Just a CSS/Javascript framework.



Twitter Bootstrap

Open Framework

- Additional base styles
- Drupal block regions
- Theme pre-processors

All the stuff you need to get started.

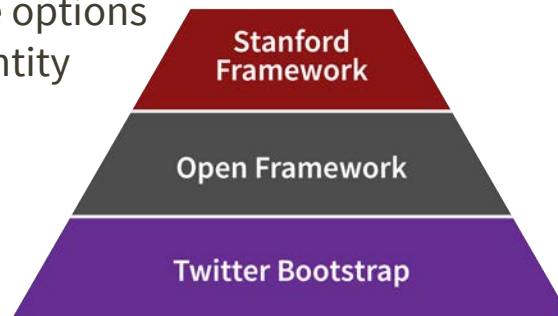


Open Framework

Twitter Bootstrap

Stanford Framework

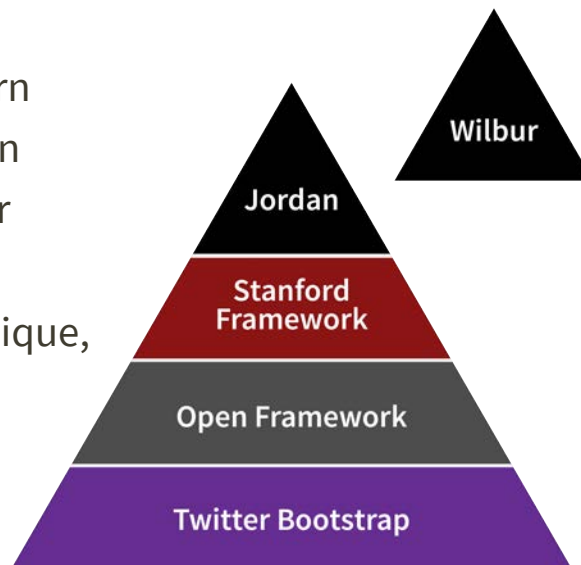
- Stanford brand bars
- Stanford styles (colors and fonts)
- Site title theme options that follow identity guidelines



Sub-themes

- Stanford Modern
- Stanford Jordan
- Stanford Wilbur

These provide unique, fully-developed designs.



Which theme is right for you?

Schools, departments, and other **official groups** requiring **Stanford branding** on your Drupal site:

- Can request use of Stanford-branded themes, such as **Stanford Modern, Wilbur,** or **Jordan**
- Can request **Stanford Framework** as a **base theme** on which to build your own **subtheme**

Which theme is right for you?

Other **university organizations,** such as a student groups, or an **individual** looking to create a personal website:

- Can use **Stanford Basic** or **Open Framework**
- Can use **Open Framework** as a **base theme** on which to build a **subtheme**

When/Where can I get my theme?

For Drupal 7 sites:

- Open Framework, Stanford Framework, Stanford Modern, Jordan, and Wilbur will be available starting **end of March 2013**
- Stanford Basic is available **now** on Stanford Sites or Collaboration Tools Installer

When/Where can I get my theme?

For Drupal 6 sites:

- Stanford departments and official groups can request to use Stanford Modern via HelpSU

Site Building with Open Framework (and its subthemes)

Modules that play nice

- Block Class
- Views
- BEAN
- Context
- CSS Injector

OFW styled with CSS Injector



Making your own subtheme

When CSS Injector isn't enough...

Create your own **subtheme!**

Note: If you are on **Stanford Sites**, you cannot create and use subthemes, only use CSS Injector.

First, choose a base theme

Choose whether you want to start with:

Stanford Framework

or

Open Framework

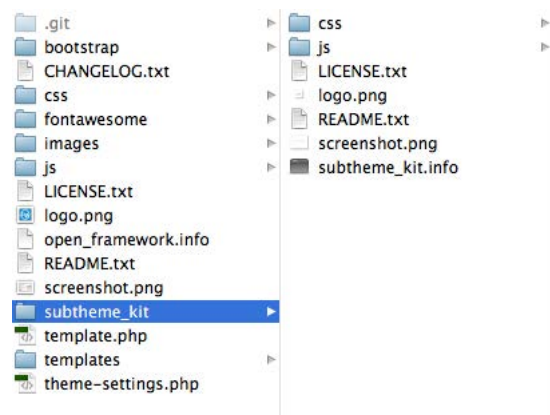
Use Stanford Framework for any Stanford-branded themes.

Create your subtheme

Copy the **subtheme_kit** folder from Open Framework.

Follow the instructions in the **README.txt** to rename your subtheme and require the appropriate **base theme** (Open Framework or Stanford Framework).

Create your subtheme



Create your subtheme

Edit the **CSS**, or go even further adding **custom template files**, or change **block regions**.

Do not edit the code of your base theme!

Instead, build off of it, and override when necessary.

Connect with us

<http://openframework.stanford.edu>

<http://swsblog.stanford.edu>

Join our announcement list:

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Megan Miller - meganem@stanford.edu

Brian Young - brianyoung@stanford.edu

Questions?