Effective & Efficient Design with CSS3

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CSS Summit

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@zomigi

What I do

Books

now Flexible Web Design:
Creating Liquid and Elastic Layouts with CSS

www.flexiblewebbook.com

soon Stunning CSS3:
A Project-based Guide to the Latest in CSS

www.stunningcss3.com

Web

Freelance graphic designer and web developer

CSS consultant

Member of Adobe Task Force for WaSP

What is CSS3?

See modules at www.w3.org/Style/CSS/current-work

Abbreviation	Full name
WD	Working Draft
LC	Last Call
CR	Candidate Recommendation
PR	Proposed Recommendation
REC	Recommendation

High Priority	Current	Upcoming
CSS Level 2 Revision 1	Candidate Recommendation	Proposed Recommendation
Selectors	Proposed Recommendation	Recommendation
CSS Mobile Profile 2.0	Candidate Recommendation	Proposed Recommendation
CSS Marquee	Candidate Recommendation	Proposed Recommendation
Medium Priority	**Current**	**Upcoming**
CSS Snapshot 2007	Last Call	Candidate Recommendation
CSS Namespaces	Candidate Recommendation	Proposed Recommendation
CSS Paged Media	Last Call	Last Call
CSS Print Profile	Last Call	Candidate Recommendation
CSS Values and Units	Working Draft	Working Draft
CSS Cascading and Inheritance	Working Draft	Working Draft
CSS Text	Working Draft	Working Draft
CSS Text Layout		Working Draft
CSS Line Grid		Working Draft
CSS Ruby	Candidate Recommendation	Working Draft
CSS Generated Content for Paged Media	Working Draft	Working Draft
CSS Backgrounds and Borders Level 3	Last Call	Candidate Recommendation
CSS Fonts	Working Draft	Last Call
CSS Basic Box Model	Working Draft	Working Draft
CSS Multi-column Layout	Candidate Recommendation	Proposed Recommendation
CSS Template Layout	Working Draft	Working Draft
Media Queries	Candidate Recommendation	Proposed Recommendation
CSS Speech	Working Draft	Working Draft
CSS Color	Last Call	Proposed Recommendation
CSS Basic User Interface	Candidate Recommendation	Test Suite
CSS Scoping		Working Draft
CSS Grid Positioning	Working Draft	Working Draft
CSS Flexible Box Layout	Working Draft	Working Draft
CSS Image Values	Working Draft	Working Draft
CSS 2D Transformations	Working Draft	Working Draft
CSS 3D Transformations	Working Draft	Working Draft
CSS Transitions	Working Draft	Working Draft
CSS Animations	Working Draft	Working Draft
Low Priority	**Current**	**Upcoming**
CSSOM View	Working Draft	Working Draft
CSS Extended Box Model		Working Draft
CSS Object Model		Working Draft
CSS Syntax	Working Draft	Working Draft
CSS Lists	Working Draft	Working Draft
CSS Tables		Working Draft
CSS Reader Media Type	Working Draft	-
CSS Positioning		Working Draft
CSS Generated and Replaced Content	Working Draft	Working Draft
CSS Line Layout	Working Draft	Working Draft
CSS Hyperlink Presentation	Working Draft	Working Draft

Use the parts of CSS3 that:

- ✔ have generally stable syntax.
- ✔ have good support.
- ✔ don't harm non-supporting browsers by their lack.

Progressive enhancement

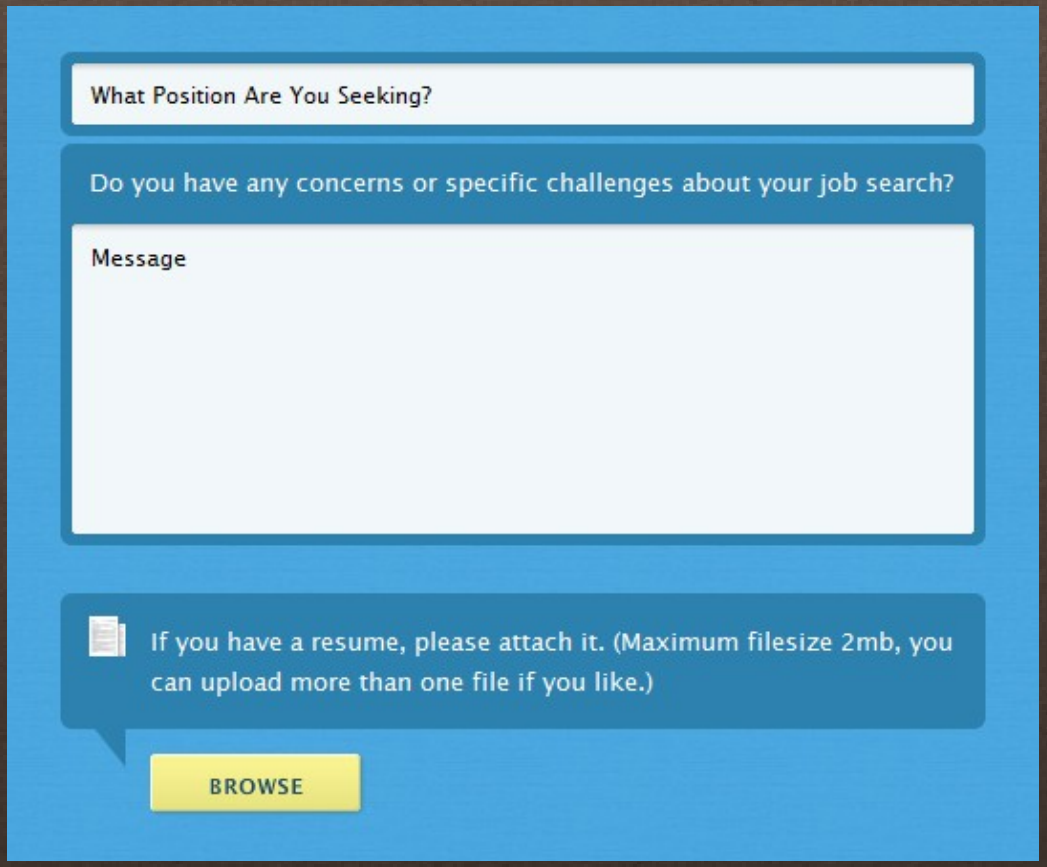
Progressive enhancement…aims to deliver the best possible experience to the widest possible audience — whether your users are viewing your sites on an iPhone, a high-end desktop system, a Kindle, or hearing them on a screen-reader, their experience should be as fully featured and functional as possible.

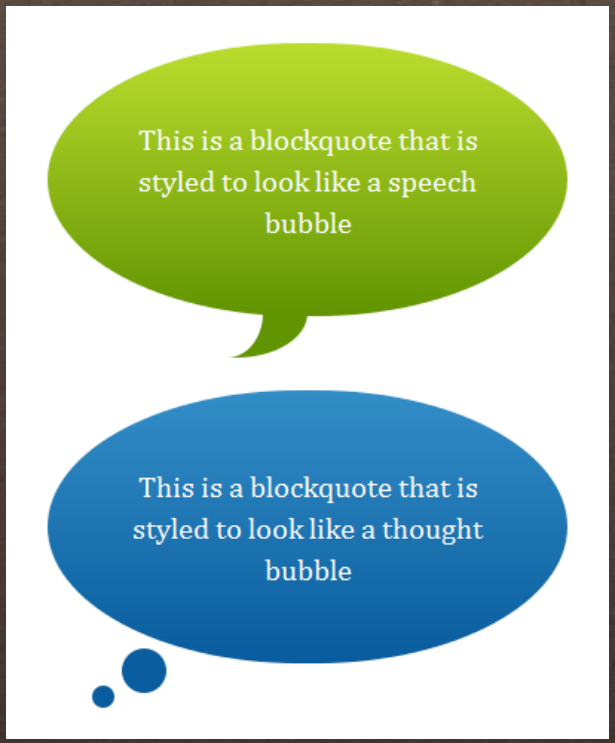
Designing with Progressive Enhancement,
www.filamentgroup.com/dwpe

Photo by Kristin Roach, www.flickr.com/photos/kristinroach/3995676135

Backgrounds and Borders Module

border-radius

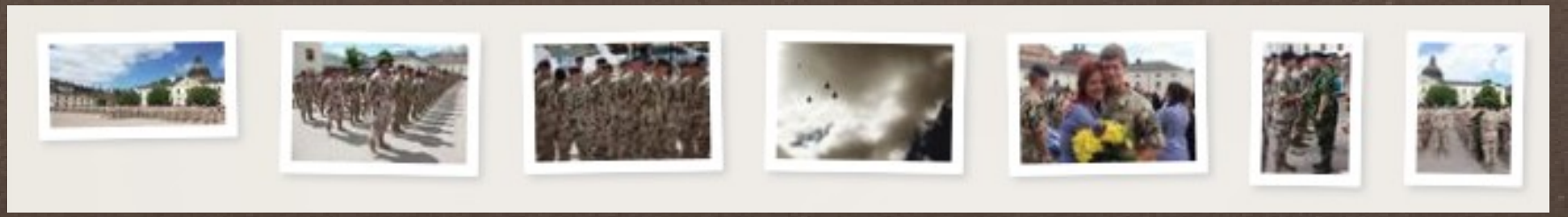




www.blueskyresumes.com, http://blog.gesteves.com, http://nicolasgallagher.com/demo/pure-css-speech-bubbles/bubbles.html

Backgrounds and Borders Module

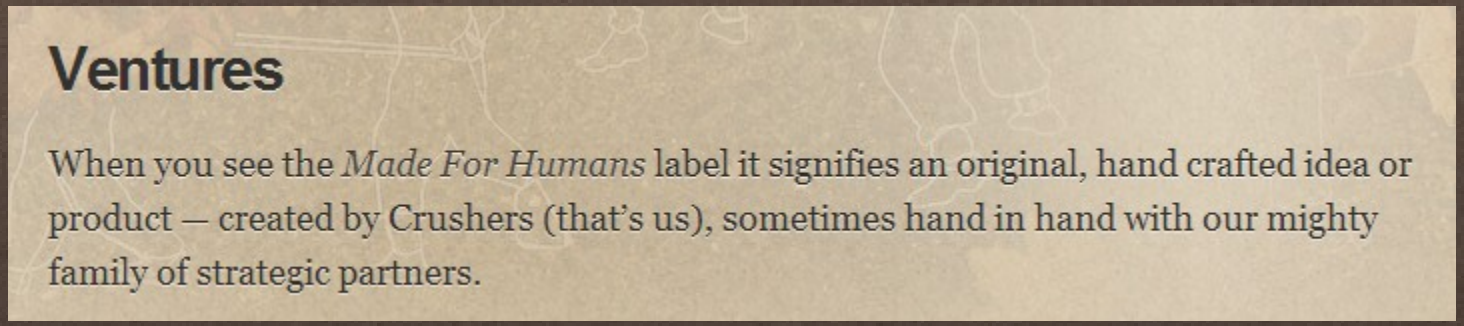
box-shadow

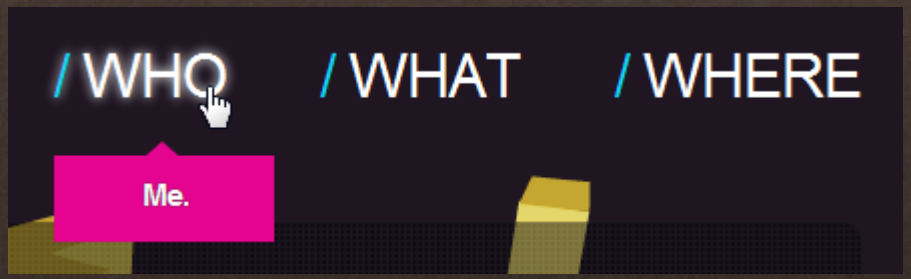


www.fredssoldater.se, http://chris-armstrong.com, http://girliemac.com/sandbox/button.html, http://weston.ruter.net/2009/06/15/multiple-borders-via-css-box-shadow

Text Module

text-shadow





http://crushlovely.com, http://sixrevisions.com/css/how-to-create-inset-typography-with-css3, http://desandro.com, www.time2project.com

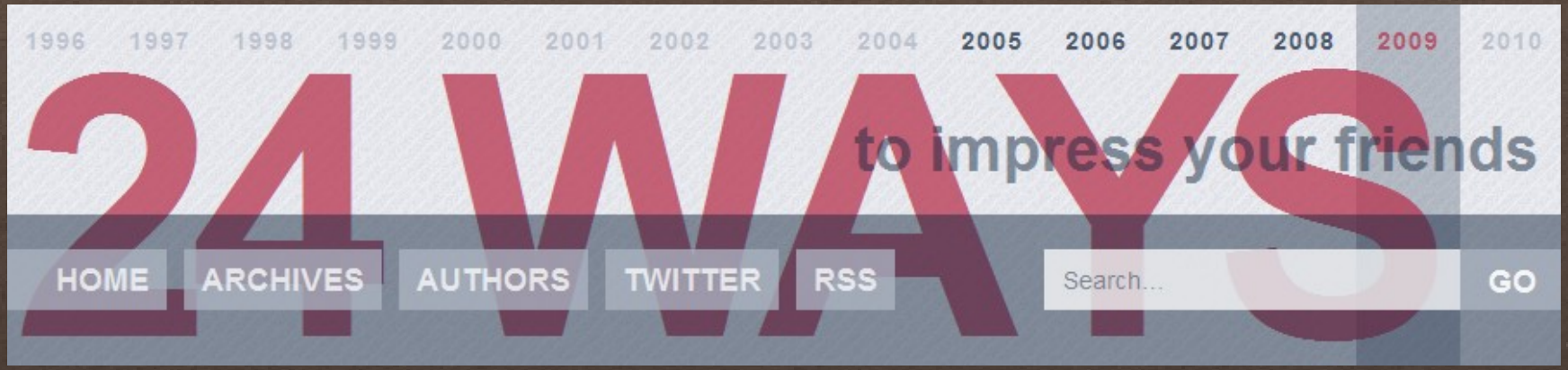
Image Values Module

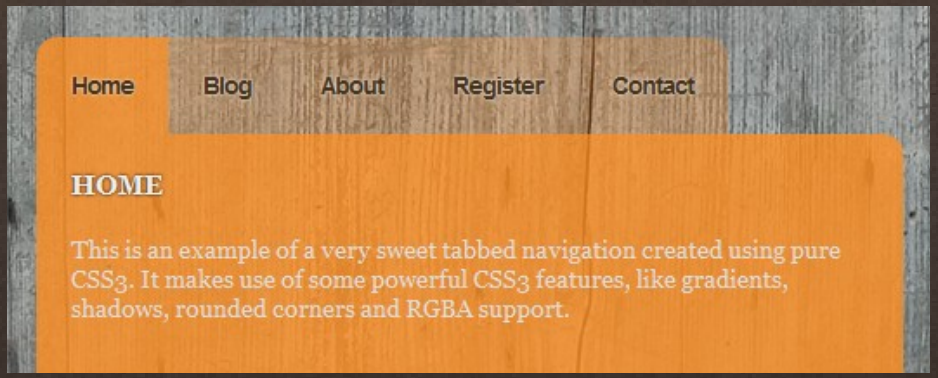
Gradients

http://designindevelopment.com/demos/grooveshark, www.yummly.com, www.broken-links.com/tests/studio_effect

Color Module

RGBA and HSLA

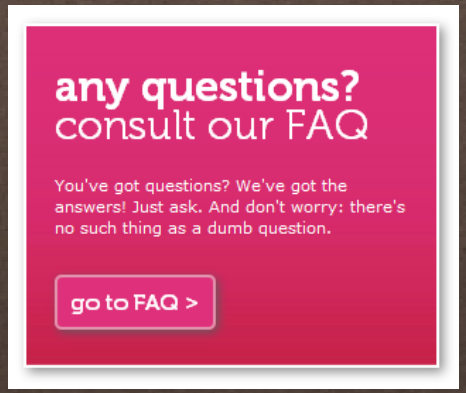


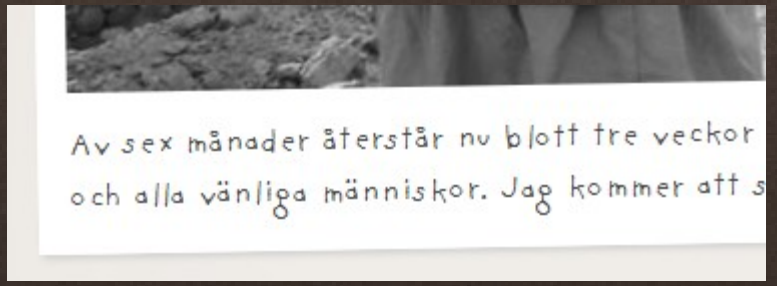


http://24ways.org, http://css-tricks.com/text-blocks-over-image, www.marcofolio.net/css/sweet_tabbed_navigation_using_css3.html

Fonts Module

@font-face

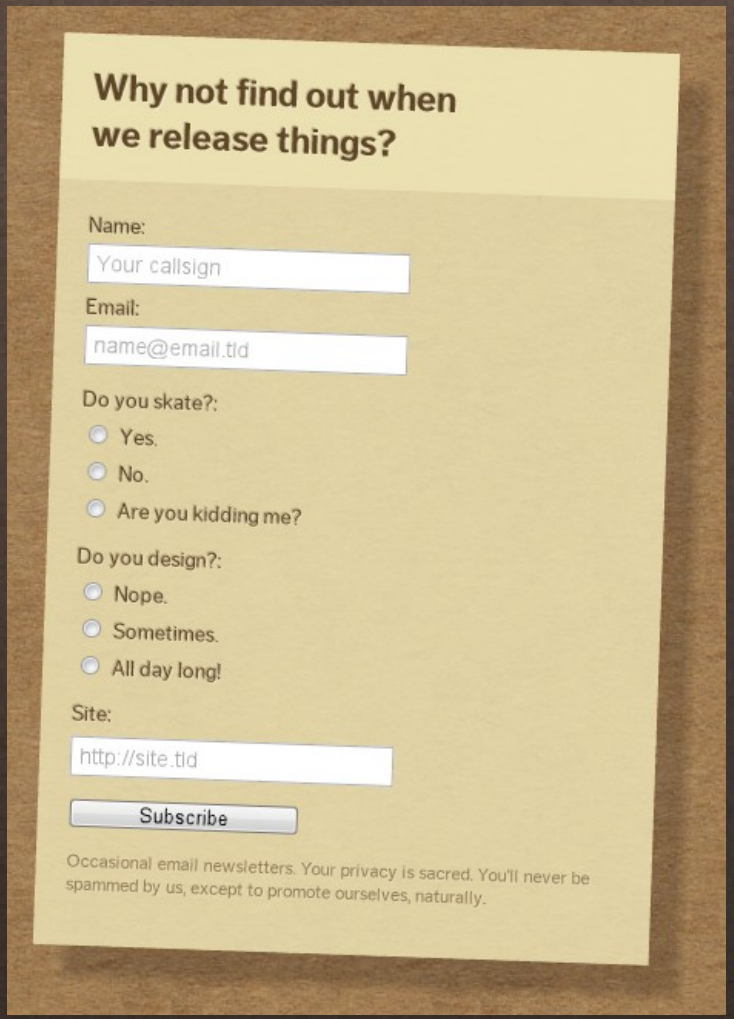


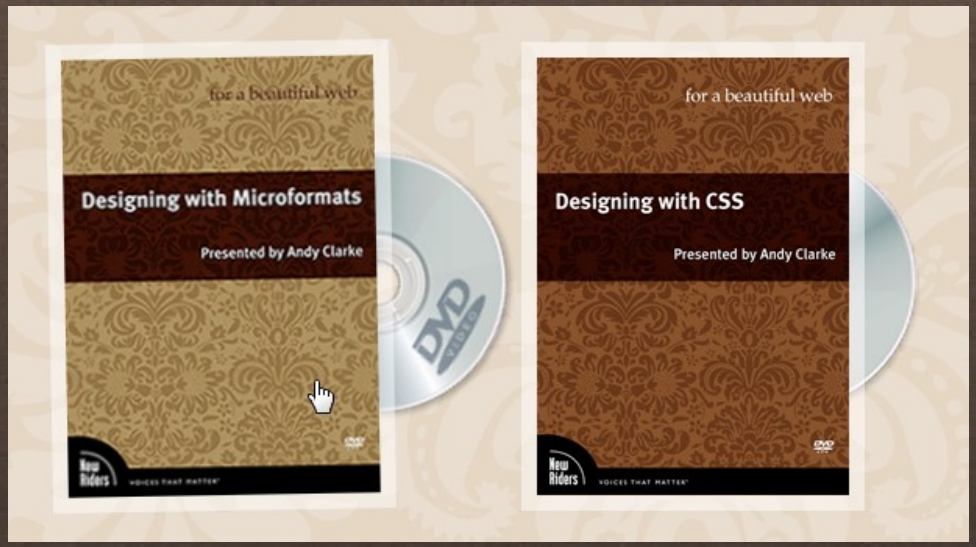


www.blueskyresumes.com, www.jasonsantamaria.com, www.becherry.be, http://themanyfacesof.com/john-cusack, www.fredssoldater.se

2D Transforms Module

Transforms





http://butterlabel.com, http://forabeautifulweb.com, http://girliemac.com/sandbox/dock.html

Benefits of CSS3 *(besides looking cool)*

Decrease

development time

maintenance time

page loading time

Increase

usability

accessibility

adaptability across devices

search engine placement

Reduced development and maintenance time

- Less images, Flash, JavaScript
- Streamlined markup

Increased page performance

- Smaller file sizes
- Fewer HTTP requests

Reducing the number of HTTP requests…is the most important guideline for improving performance for first time visitors.

Yahoo! Exceptional Performance Team,
http://developer.yahoo.com/performance/rules.html

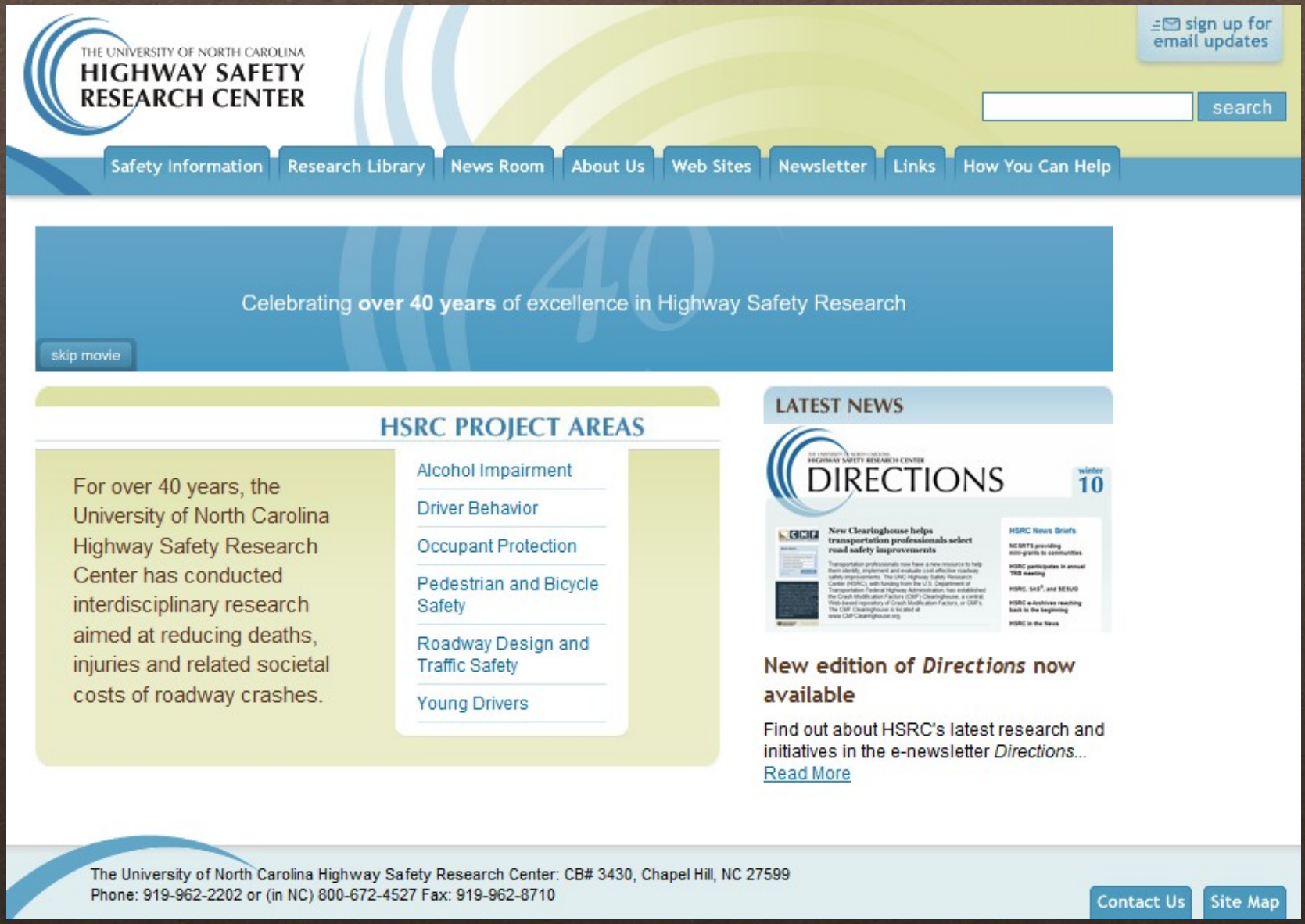
Better search engine placement

- Google uses speed as ranking factor
- Real text instead of image or Flash text

Increased usability

- Real text
- Optimized styles based on device capabilities

Real-world example

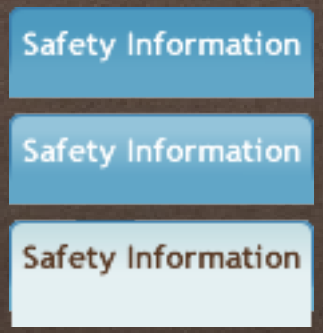


Before CSS3

	FF 3.6	IE 8	IE 6
HTTP requests	36	37	47
Loading time *seconds*	1.5	1.3	3

The nav bar

Before: 8 images



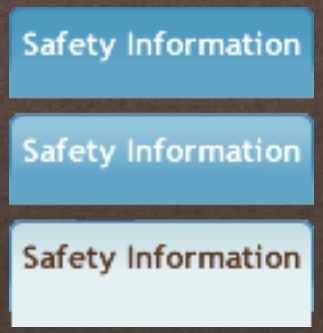
inactive

hovered

current page indicator

The nav bar

Before: 8 images

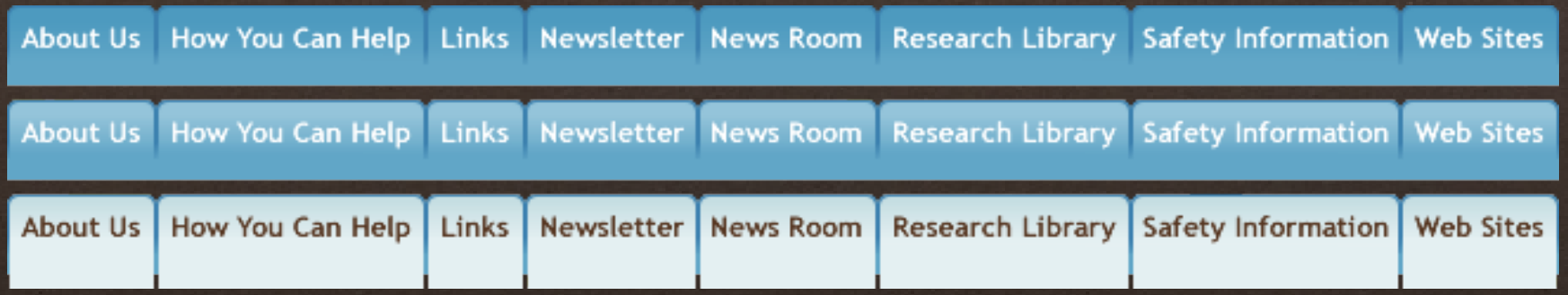


inactive

hovered

current page indicator

After: 1 image



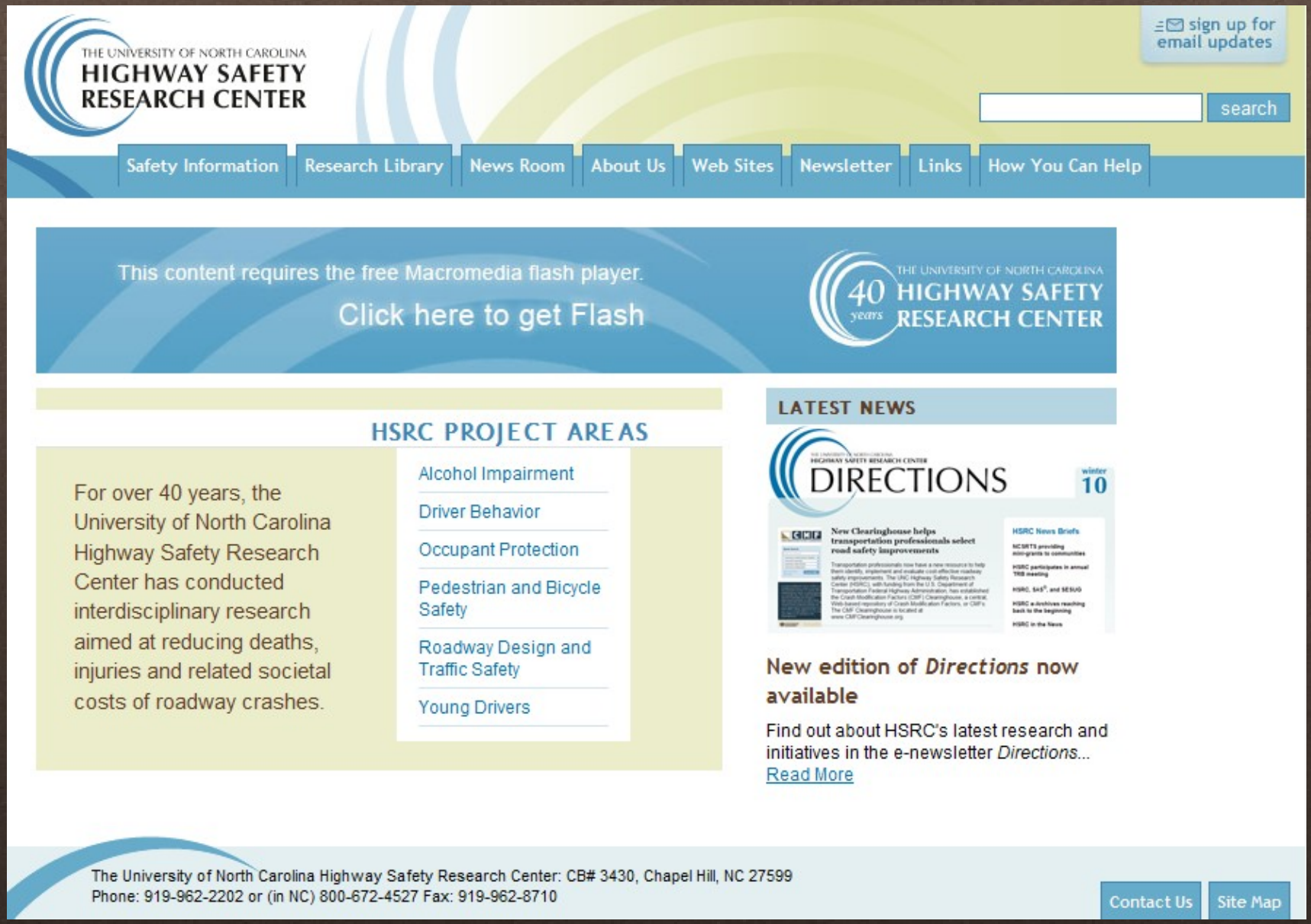
Before CSS3, optimized

	FF 3.6	IE 8	IE 6
HTTP requests	29	30	33
Loading time *seconds*	1.3	1.15	2
decrease	⬇13%	⬇11%	⬇33%

After CSS3

	FF 3.6	IE 8	IE 6
HTTP requests	22	23	24
Loading time *seconds*	1.1	1	1.5
decrease	⬇ 15%	⬇ 13%	⬇ 25%

IE 8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40 years
HIGHWAY SAFETY
RESEARCH CENTER
HSRC PROJECT AREAS
For over 40 years, the University of North Carolina Highway Safety Research Center has conducted interdisciplinary research aimed at reducing deaths, injuries and related societal costs of roadway crashes.
Alcohol Impairment
Driver Behavior
Occupant Protection
Pedestrian and Bicycle Safety
Roadway Design and Traffic Safety
Young Drivers
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winter 10
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The University of North Carolina Highway Safety Research Center: CB# 3430, Chapel Hill, NC 27599
Phone: 919-962-2202 or (in NC) 800-672-4527 Fax: 919-962-8710
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IE 6

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HIGHWAY SAFETY RESEARCH CENTER

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THE UNIVERSITY OF NORTH CAROLINA 40 years HIGHWAY SAFETY RESEARCH CENTER

HSRC PROJECT AREAS

For over 40 years, the University of North Carolina Highway Safety Research Center has conducted interdisciplinary research aimed at reducing deaths, injuries and related societal costs of roadway crashes.

- Alcohol Impairment
- Driver Behavior
- Occupant Protection
- Pedestrian and Bicycle Safety
- Roadway Design and Traffic Safety
- Young Drivers

LATEST NEWS

New edition of *Directions* now available

Find out about HSRC's latest research and initiatives in the e-newsletter *Directions*...
Read More

The University of North Carolina Highway Safety Research Center: CB# 3430, Chapel Hill, NC 27599
Phone: 919-962-2202 or (in NC) 800-672-4527 Fax: 919-962-8710

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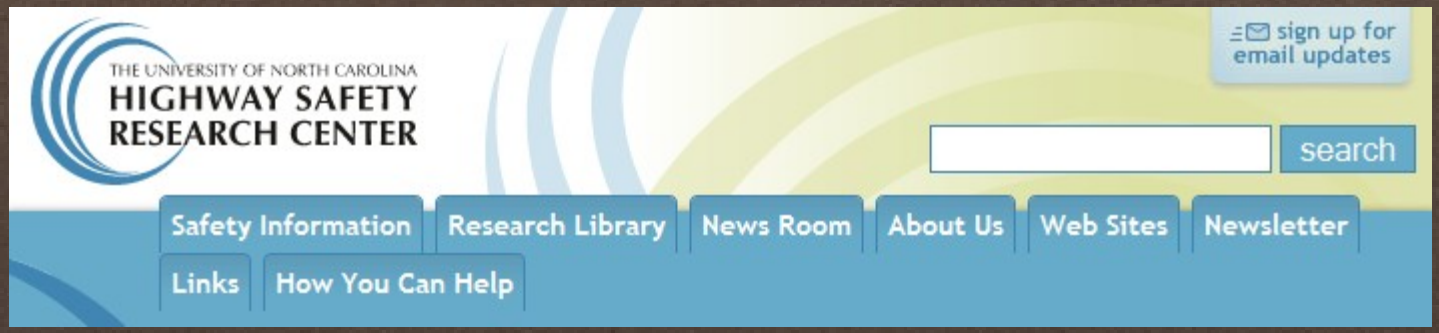
Wrapping tabs



Larger text + narrow window =
ugly Amazon double-row tabs from 2000

Media query for nav bar

```
@media all and (max-width:52em) {
    #swoosh { display: none; }
    #mainnav { padding: 8px 0; }
    #mainnav ul { margin: 0; }
    #mainnav li {
       margin-left: 12px;
       padding: 0;
       border: none;
       -moz-border-radius: 0;
       -webkit-border-radius: 0;
       border-radius: 0;
       background: none;  }
    #mainnav li:hover { background: none; }
}
```

English translation:

Up to a maximum width of 52 ems, use these styles. Once you get past 52 ems, use the regular styles.

Media queries for mobile

```
min-width
max-width
device-width
min-device-width
max-device-width
orientation
-webkit-min-device-pixel-ratio
```

Targeting iPhone, Android, etc.

```
@media screen and
```

portrait & landscape
```
(min-width: 320px) and
(max-width: 480px)
```

portrait & landscape
```
(min-device-width: 320px) and
(max-device-width: 480px)
```

portrait & landscape
```
(max-device-width: 480px)
```

landscape only
```
(min-width: 321px)
```

portrait only
```
(max-width: 320px)
```

Targeting iPad

```
@media screen and
```

portrait & landscape

```
(min-device-width: 768px) and
(max-device-width: 1024px)
```

landscape only

```
(min-width: 769px)
```

landscape only

```
(min-device-width: 481px) and
(max-device-width: 1024px)
and (orientation: landscape)
```

portrait only

```
(min-device-width: 481px) and
(max-device-width: 1024px)
and (orientation: portrait)
```

Viewport meta tag

Forces mobile devices to scale viewport to actual device width

```
<meta name="viewport"
      content="width=device-width,
               minimum-scale=1.0,
               maximum-scale=1.0">
```

Learn more

Download slides, get links:

www.zomigi.com/blog/css-summit-2010/

Book:

www.stunningcss3.com

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Questions?

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