Designing CSS Layouts for the Flexible Web

July 18, 2009
The CSS Summit
Zoe Mickley Gillenwater
A little about me

• Author of *Flexible Web Design: Creating Liquid and Elastic Layouts with CSS*
• Author of lynda.com video course *Web Accessibility Principles*
• Freelance web and print designer, HTML/CSS developer, consultant
• Member, Adobe Task Force of Web Standards Project (WaSP)
What is flexible design?

- Overall width is not fixed number of pixels
- Liquid (aka fluid)
- Elastic
- Hybrid
Liquid

Width adapts to viewport
Elastic

Width adapts to text size
Hybrid

Mixture of fixed-width, liquid, and/or elastic for column widths
Why bother?
Why not?

Why choose fixed-width when web is flexible by default?
Don’t swim upstream if you don’t have to
### Benefits of flexible layouts

<table>
<thead>
<tr>
<th></th>
<th>Liquid</th>
<th>Elastic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respect user preferences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Increased usability, readability, and accessibility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Less chance of horizontal scrollbars</td>
<td></td>
<td>Increased typographic control</td>
</tr>
<tr>
<td>Take advantage of screen real estate</td>
<td></td>
<td>Preserve design proportions</td>
</tr>
</tbody>
</table>
Work well and look good for a larger number of people a greater amount of the time
Design differently from the start

• Not every comp (aka mock-up) can be turned into liquid or elastic layout
• Learn which design features aren’t “flexible-friendly” and how to change them so they are
Goals of this presentation

Fixed-width designer:
Make designs more adaptive to user preferences
Goals of this presentation

**Fixed-width designer:**
Make designs more adaptive to user preferences

**Flexible designer:**
Know what to watch out for/plan for in comps to make construction easier, layout more robust
Goals of this presentation

Fixed-width designer:
Make designs more adaptive to user preferences

Flexible designer:
Know what to watch out for/plan for in comps to make construction easier, layout more robust

Non-designer:
Identify problematic design elements to convince designer to change or tweak yourself
Not just avoiding fixed widths

No fixed heights for anything containing text
Width affects height
Width affects height

Liquid:

Change in viewport width

↓

Text wraps differently

↓

Change in number of lines of text

↓

Change in height of block text sits in
Width affects height

**Liquid:**
- Change in viewport width
  - Text wraps differently
  - Change in number of lines of text
  - Change in height of block text sits in

**Elastic:**
- Change in font size
  - Change in height of text characters
  - Change in height of block text sits in
Avoid:

Irregular shapes defining a text area
Re-Introducing THE LIPPINCOTT
This beautifully restored collection of mid-19th Century buildings in the heart of downtown Wilmington’s LOMA Design District will be available for occupancy January 2009 - Click here for leasing details.

JULY 14, 2008
Verge coworking
Is your independent business on the verge of something big? Do you like the freedom of freelancing but not the isolation of the home office? Is your current work community a group of screaming babies at Starbucks?

APRIL 18, 2008
Greener Cleaner Plus
In September 2008 Greener Cleaner Plus will open downtown's first eco-friendly dry cleaning service at the SE corner of 4th & Market. They offer free pick-up and delivery service in Wilmington and surrounding areas, and their retail location at 318 N. Market Street will also feature chemical-free home cleaning products for counters, dishes, floors, and laundry.

GOING GREEN
The Lippincott project was conceived to take very little from the planet, and to leave a light carbon footprint behind. Come take a look at the eco-measures we put into action.

Loma/News Updates
Keep up-to-date with latest info on the Lippincott and the LOMA District.

FIRST NAME:

LAST NAME:

EMAIL:

Submit
Recent Comments

“congrats! hilarious video too Lisa!... by ComposeAnalysis

“Thanks to every one who participated and... by Mostly Lisa

“[...] Contact [...] by MostlyLisa.com: Lisa Bettany. Canada’s Sexy Geek Blog » Blog Archive » And the Vector-sized glory goes to...

“I vote “Not the Fish”, just because he’s... by Grant

“I’m with you! For the past few days by Dan

Recent Posts

★ And the Vector-sized glory goes to...
  12-03-2008

★ [UnDigg] Omg. I had so much fun at SxSW.
  12-03-2008

★ Vote for the First Annual Vectorama Winner!
  10-03-2008

★ Don’t Mess with my Vectorama!
  10-03-2008

★ Audition Peep Show #2
  08-03-2008

about Lisa

Lisa Bettany lives in Vancouver, BC, Canada. She is a multimedia producer, model, actress, blogger, and geek. She mostly comes out at night... mostly.

Read more

 Mostly Lisa, www.mostlylisa.com (since redesigned)
Irregular shapes defining a text area

Example:

Closing our Retail Store Sale - 25% off all orders. Use this code to receive your discount SHOPIFY2VLQNIUD

Scrapbook Your Memories is a happy and contagious spot where the staff are as creative and as fun as it’s customers. Expect more of everything:

More great products, more c... (More)
Example:

Closing our Retail Store Sale - 25% off all orders. Use this code to receive your discount SHOPIFY2VLQNIUD

Scrapbook Your Memories is a happy and contagious spot where the staff are as creative and as fun as it's customers. Expect more of everything:

More great products, more c... (More)
Are we stuck with only straight rectangles?
Solution: Tile irregular pattern
Solution: Tile irregular pattern

"So don't let me give up trying, I'm beginning to receive the strength I need. To keep me on the straight and narrow..."

Straight & Narrow © S. Wiffen 2005
Irregular shapes defining a text area

Solution: Tile straight piece

Avoid:

Text matched with images that can’t expand
Web 2.0 experts at your service

Here at etonDIGITAL we do everything web and more. From web design and development, to interactive Flash development, and everything in between - we deliver polished, professional, and affordable products that get you the attention you deserve.

Featured projects

Because everyone’s got a story to tell

Website: www.pod3.tv
We did: Design, X-HTML/CSS, Drupal CMS
Pick the right images

Image from flickr, “June 10, 2006: Picked!” by Matt McGee
Solution: Masked images

Maximize Productivity:
Please Choose:

Grow Your Practice:
Please Choose:

Get Found:
Please Choose:

See Solutions in Action: DEMOS
Please Choose:

Everything the Doctor Ordered!
Sesame is the one-stop communications solution connecting 1,000,000+ patients to their orthodontists and dentists online right now. Sesame keeps patients connected to your office, reminds them what’s great about your practice, and makes it easy for them to spread the word.

Meet your new patient

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Meet your new patient

Sesame Communications, www.sesamecommunications.com
Solution: Masked images

Use the proper CSS to ensure text has enough space to sit in
Solution: Masked images

Anchoring the background image:

div {
    padding: 20px 20px 100px 20px;
    background: #fff url(image.jpg) no-repeat bottom left;
}
Solution: Variable cropping

CSS technique, but requires designing with right type of images
Solution: Variable cropping

Background image:
```html
<div>
  width: 50%;
  min-height: 100px;
  background: url(image.jpg) no-repeat;
</div>
```

Foreground image:
```html
<div>
  width: 50%;
  min-height: 100px;
  overflow: hidden;
</div>
```
```html
<div>
  <img src="image.jpg" width="500" height="100" alt="text">
</div>
```
Solution: Variable cropping

Can stitch together multiple to make longer
Solution: Blend into background
Solution: Blend into background

Rich online functionality with Defacto: make your business fly.

Learn more about Defacto

Defacto, www.defacto-cms.com
Solution: Scalable images

CSS technique, but requires designing with right type of images

La Storia del Castello di Bolgheri

Le origini del Castello di Bolgheri risalgono al 1200. Fin da allora proprietà della famiglia dei Conti della Gheradesca. Nella seconda metà del 1700 vengono effettuati restauri e migliorie al palazzo e la costruzione delle cantine. Nel 1895 viene modificata la facciata del castello, con la realizzazione della torre e dei merli così come ancora oggi essa appare. La Storia del Castello

Vino ed Olio

Agriturismo

Castello di Bolgheri, www.castellodibolgheri.eu
Solution: Scalable images

Liquid image:
```html
<img src="image.jpg" alt="text">
```

```css
img {
  width: 50%;
}
```

Elastic image:
```html
<img src="image.jpg" alt="text">
```

```css
img {
  width: 20em;
}
```
Avoid:

Fixed-width, full-width content
Quickly and safely achieve your fitness goals under the direct supervision of a qualified fitness professional with Roseville Health & Wellness' personal training programs. Train with some of Northern California's finest degreed and nationally certified professionals to fine-tune your fitness regiment.

Our personal trainers will help you decrease body fat, improve strength and increase coordination, flexibility and muscular balance. You'll learn the correct way to use equipment and the appropriate form and technique necessary to maximize your results.

“My successes have been numerous and wonderful, I have lost 20lbs and many inches, I have cut my blood pressure..."
Example:

Roseville Health & Wellness Center, www.rosevillehwc.com
Solution: Non-full-width images
Fixed-width, full-width content

Solution: Composite images
Fixed-width, full-width content

Solution: Composite images

Ronin Snowboards, www.roninsnowboards.com (since redesigned)
Solution: Composite images

```html
<div id="outer">
  <div id="inner">
    ...
  </div>
</div>

#outer {
  background: url(leftimage.png) no-repeat bottom left; }
#inner {
  background: url(rightimage.png) no-repeat bottom right; }
```
Fixed-width, full-width content

Solution: Scrollbars for large content

CSS technique using overflow property
Fixed-width, full-width content

Solution: Scrollbars for large content

div {
    overflow: auto;
}

<div>
    <img src="image.jpg" alt="text" width="600" height="400">
</div>
Avoid:

Horizontal alignment across columns
Horizontal alignment across columns

Example:
Cafédirect, www.cafedirect.co.uk
Horizontal alignment across columns

Solution: Accept misalignment

The Open University (OU) caters to the continuing professional development (CPD) needs of thousands of executives and professionals by offering flexible, accessible and value-for-money courses which they can study in and around their workplace. Every one is based on our ability to blend

Discover how The OU at work can help you take your **professional skills** to a new level and your career to new

A well-trained workforce is **a more productive workforce**. So why not take a look at what The OU at work has to offer your

The Open University, Continuing Professional Development home page, www.open.ac.uk/cpd
Summary of what to avoid:

- Irregular shapes defining a text area
- Text matched with images that can’t expand
- Fixed-width, full-width content
- Horizontal alignment across columns
Cute Cat Theory of the Web

Web 1.0 was invented to allow physicists to share research papers

Web 2.0 was created to allow people to share pictures of cute cats

Ethan Zuckerman
http://www.ethanzuckerman.com/blog/2008/03/08/the-cute-cat-theory-talk-at- etech/
What’s wrong with this picture?
A more flexible-friendly version
Beechwood Animal Shelter is a no-kill animal rescue and adoption center that works tirelessly to help rescued dogs and cats find loving adoptive parents. Find out more about us, our programs and services, and how you can help.

Another happy ending

“We adopted Bailey earlier this spring. Bailey is doing great and loves to play in the yard with our other two dogs. Everyone she meets wants to take her home. She’s very well behaved, great around children of all ages and loves giving doggie kisses.”

May 10
next adoption fair
meet us

you can help
please donate today

Styx
Shorthair, black
Male, 2 years

Shelby
Yellow lab mix
Female, 6 years

Picasso
Shorthair, orange tabby
Male, 10 months

Alley
Longhair, gray
Male, 5 years

These are just a few of the hundreds of dogs and cats we have available for adoption right now. You can use the form below to find your perfect pet. Please also consider fostering a pet until it can find a permanent home.

Type:
- [ ] Dog
- [x] Cat

Breed Type:
- [ ] Any
- [ ] Purebred
- [ ] Mixed Breed

Sex:
- [ ] Any
- [ ] Male
- [ ] Female
Learn more

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www.zomigi.com/blog/inspiration-for-flexible-web-design

Book:
www.flexiblewebbook.com
Questions?

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