Designing CSS Layouts for the Flexible Web

July 18, 2009

The CSS Summit

Zoe Mickley Gillenwater

A little about me

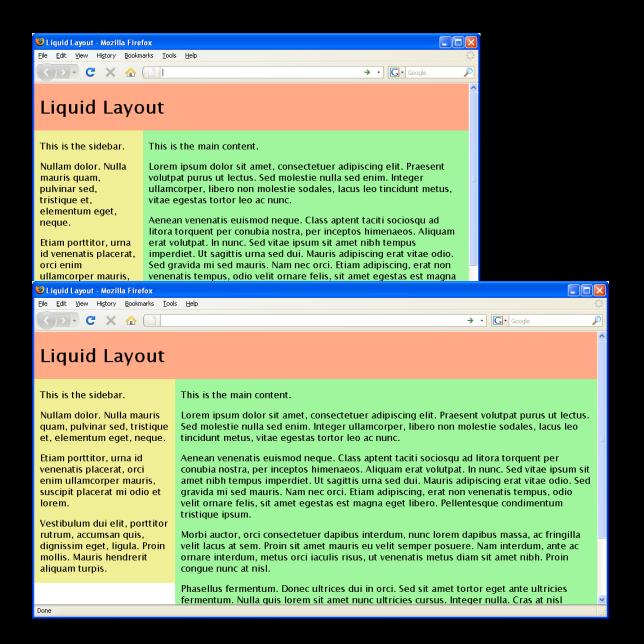
- Author of Flexible Web Design: Creating Liquid and Elastic Layouts with CSS
- Author of lynda.com video course Web Accessibility Principles
- Freelance web and print designer, HTML/CSS developer, consultant
- Member, Adobe Task Force of Web Standards Project (WaSP)

What is flexible design?

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

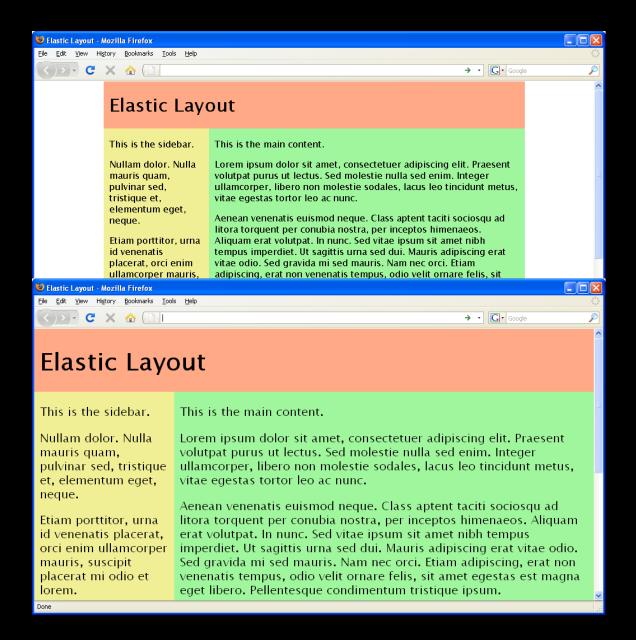
Liquid

Width adapts to viewport



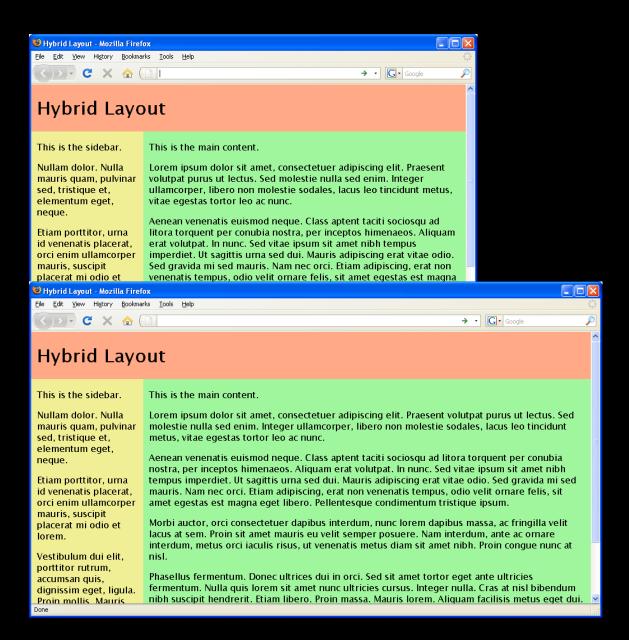
Elastic

Width adapts to text size



Hybrid

Mixture of fixed-width, liquid, and/or elastic for column widths



Why bother?



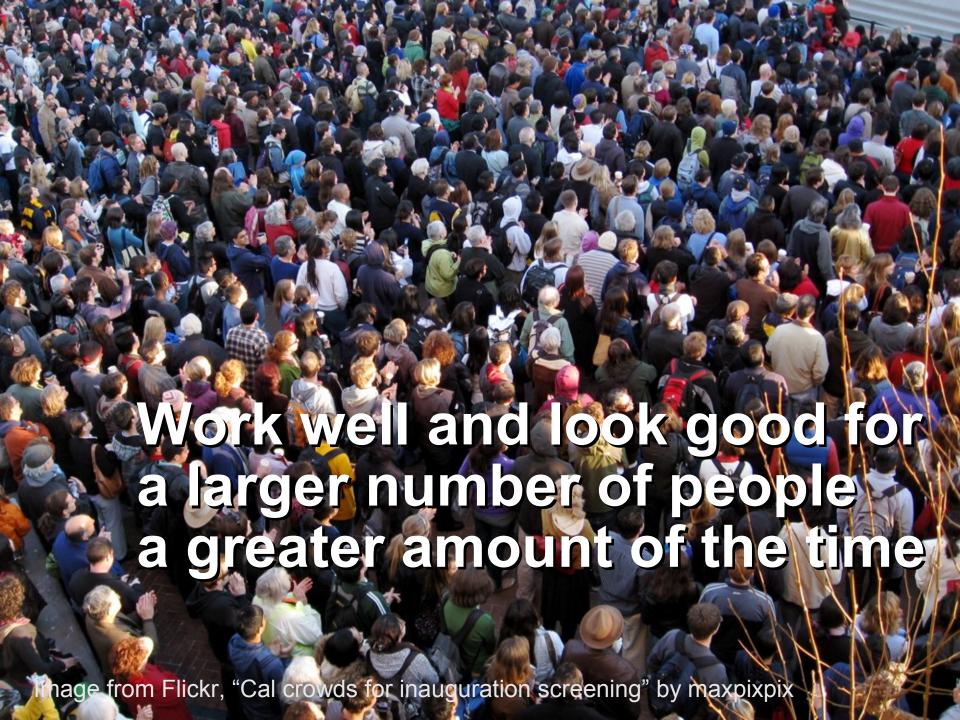
Why not?

Why choose fixed-width when web is flexible by default?



Benefits of flexible layouts

Liquid	Elastic
Respect user preferences	
Increased usability, readability, and accessibility	
Less chance of horizontal scrollbars	Increased typographic control
Take advantage of screen real estate	Preserve design proportions



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

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Flexible designer:

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

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Fixed-width designer:

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Nondesigner:

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



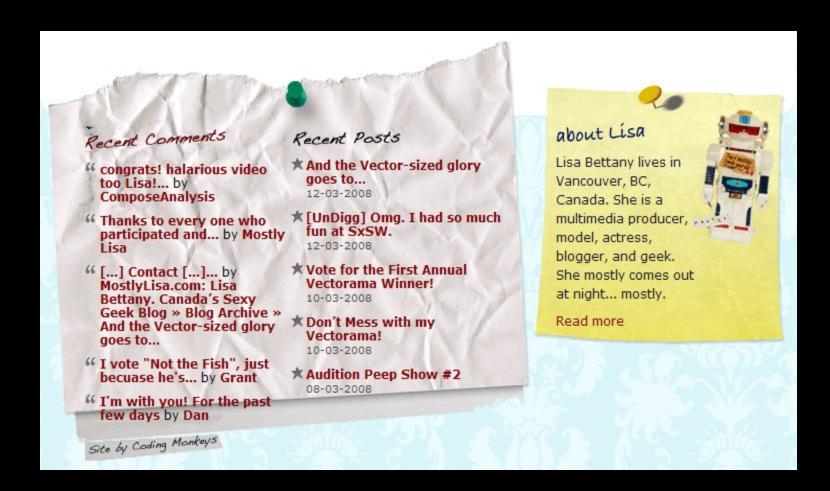
Change in height of block text sits in

#1

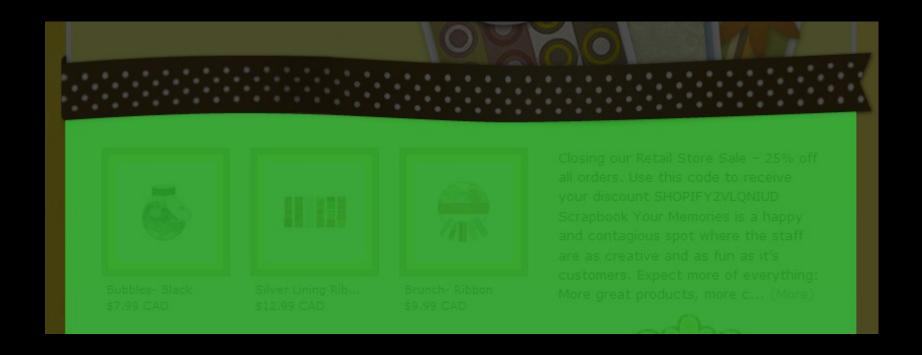
Avoid:

Irregular shapes defining a text area



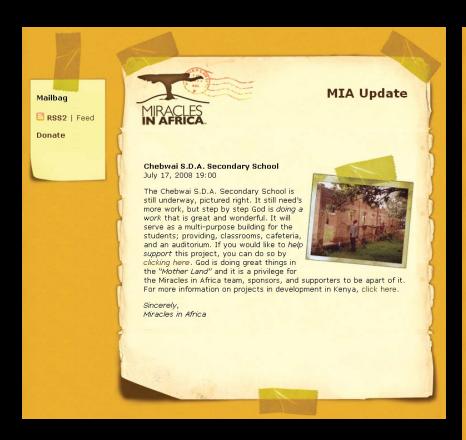






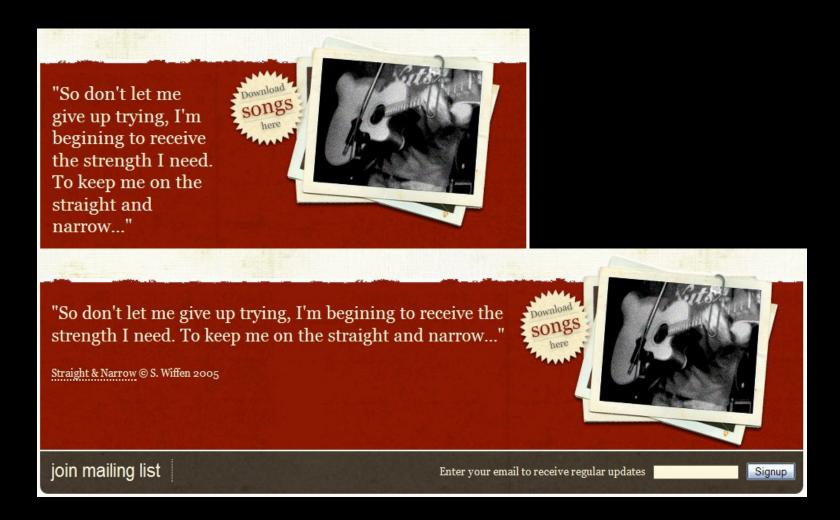


Solution: Tile irregular pattern

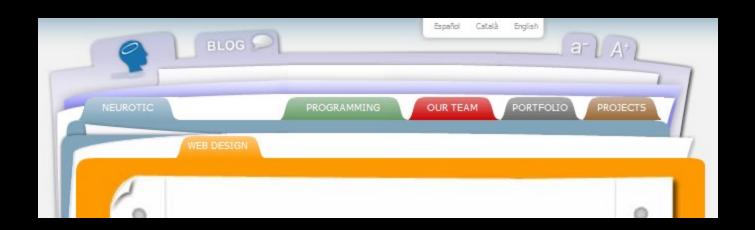




Solution: Tile irregular pattern



Solution: Tile straight piece





2

Avoid:

Text matched with images that can't expand





Solution: Masked images



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:

```
div {
    width: 50%;
    min-height: 100px;
    background:
    url(image.jpg) no-repeat;
    }
```

<div></div>

Foreground image:

```
div {
    width: 50%;
    min-height: 100px;
    overflow: hidden;
}
```

```
<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





Solution: Scalable images

CSS technique, but requires designing with right type of images





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

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* CASTELLO DI BOLGHERI



№ AGRITURISMO



* PODERE SAN SEBASTIANO

* LA STORIA DEL CASTELLO DI BOLGHERI



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N VINO ED OLIO



* CASTELLO DI BOLGHERI

w A CRITITIES NO

№ AGRITURISMO



* PODERE SAN SEBASTIANO

Solution: Scalable images

Liquid image:

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

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

Elastic image:

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

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

Avoid:

#3

Fixed-width, full-width content

Example:





My successes have been numerous and wonderful, I have lost 20lbs and many inches, I have cut my blood pressure

Personal Training



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.

Example:

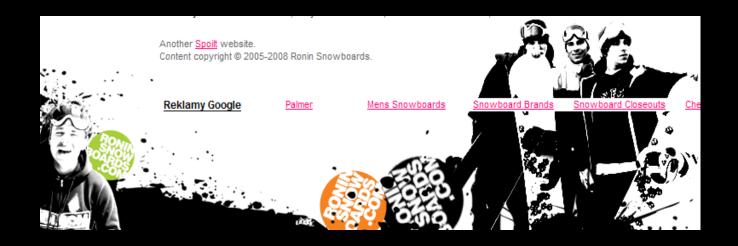


Solution: Non-full-width images



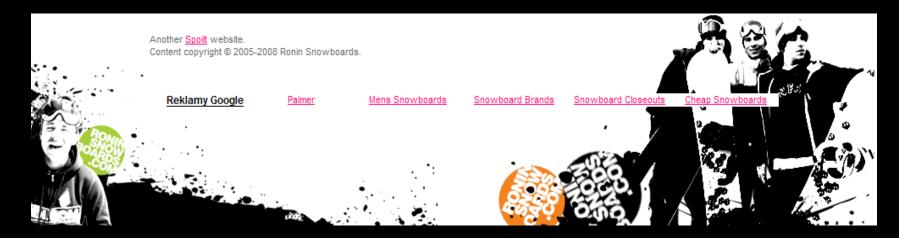


Solution: Composite images



Solution: Composite images





Solution: Composite images

```
<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; }
```

Solution: Scrollbars for large content

CSS technique using overflow property



designer/developer, researcher, and writer. I live in Newburyport, MA, USA.

WHAT IS SOCIAL DESIGN?

SOCIAL DESIGN is design that focuses on the social lives of users. It deals with the activities, behaviors, and motivations of people who work and play together through software interfaces. It is built on the observation that many of the decisions we make are greatly affected by those we surround ourselves with in our social lives:

Solution: Scrollbars for large content

```
div {
    overflow: auto;
  }

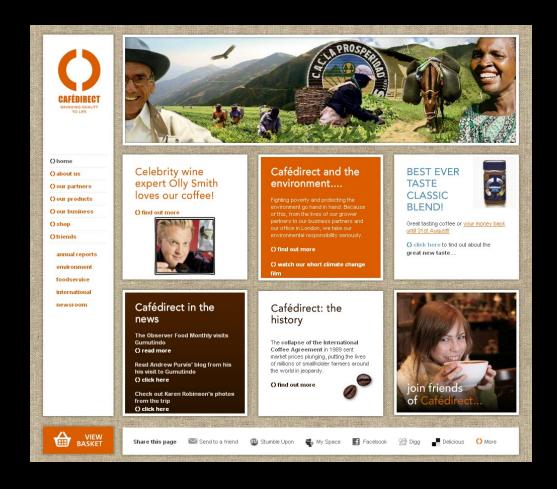
<div>
<img src="image.jpg" alt="text" width="600" height="400">
</div>
```

#4

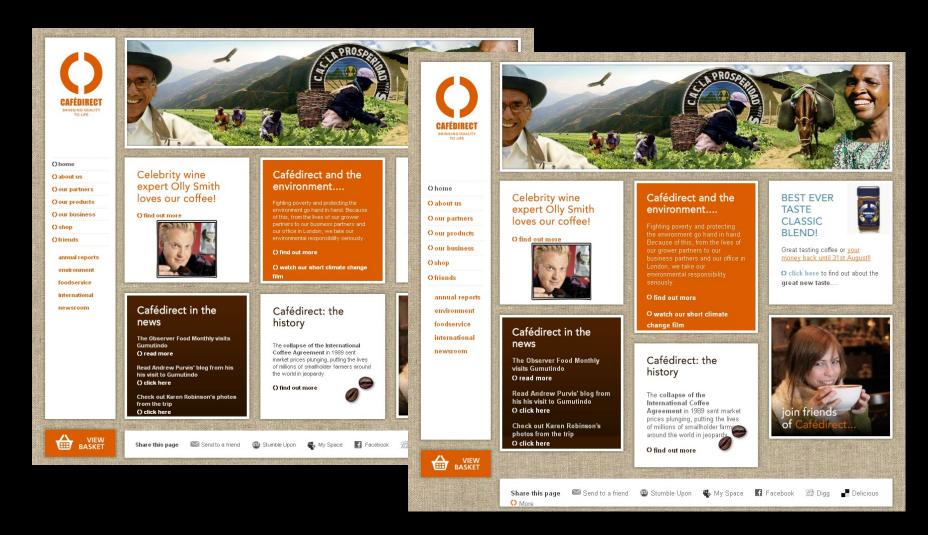
Avoid:

Horizontal alignment across columns

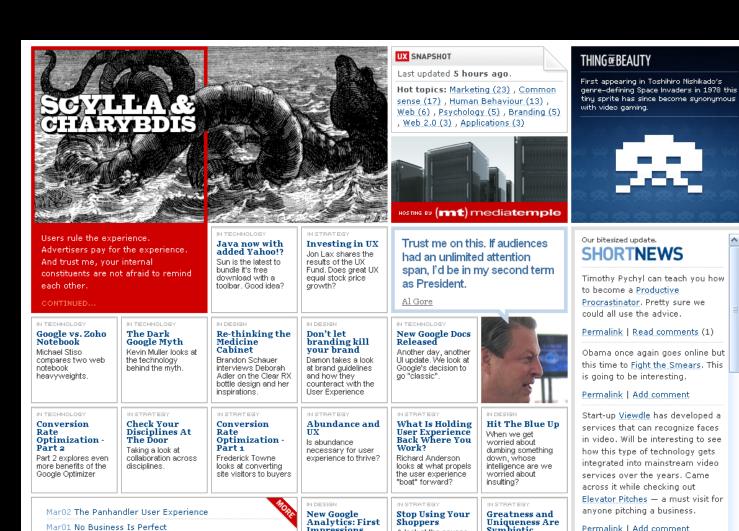
Example:



Example:



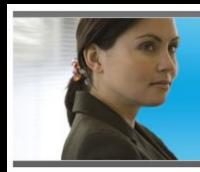
Example:



Permalink I Add comment

Mar01 No Business Is Perfect

Solution: Accept misalignment



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Bringing a world of learning to the world of work



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you take your
professional skills
to a new level and
your career to new

Developing the skills of your employees



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Sponsorship advice

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Summary of what to avoid:

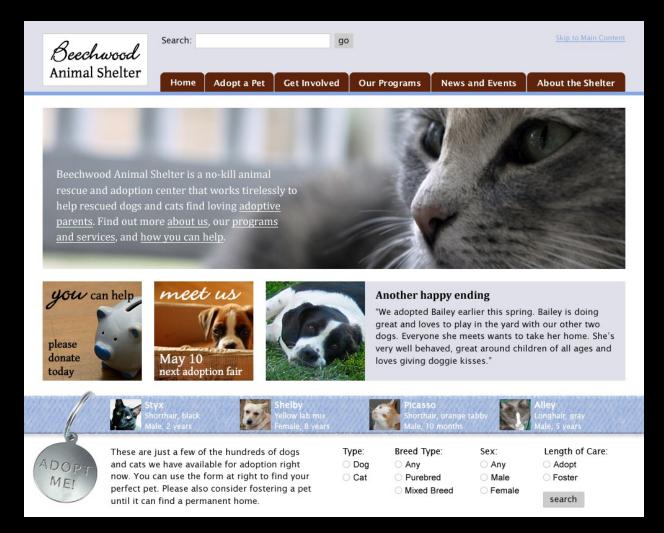
- Irregular shapes defining a text area
- Text matched with images that can't expand
- Fixed-width, full-width content
- Horizontal alignment across columns

Cute Cat Theory of the Web

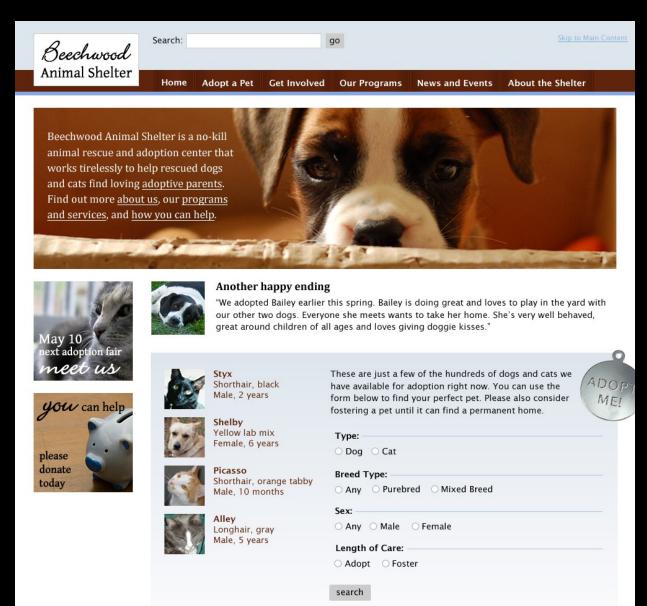
Web 1.0 was invented to allow physicists to share research papers

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

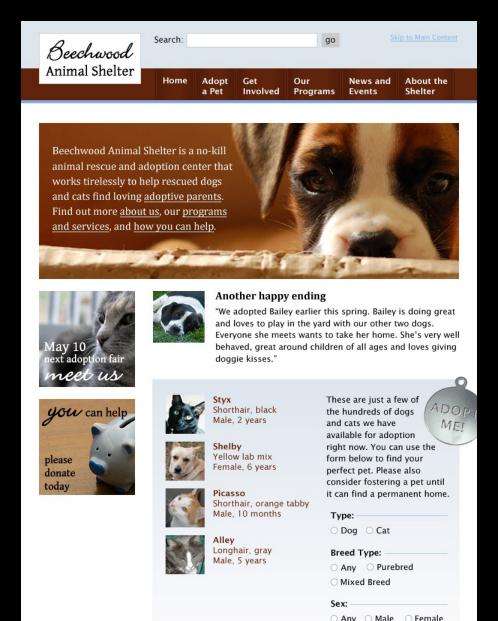
What's wrong with this picture?



A more flexible-friendly version



How it might look narrower



Learn more

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Flexible design inspiration:

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

Book:

www.flexiblewebbook.com

Questions?

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