



Roll Your Own Responsive Design

<https://github.com/jen4web>



Contao Conference • June 2017 • Jen Kramer



"I need a website and I want responsive design. How much will that cost?"

RESPONSIVE DESIGN

**I DO NOT THINK IT MEANS
WHAT YOU THINK IT MEANS**

Responsive Design (Manager)



- ☞ Make it work on my iPhone!
- ☞ Make it work on my iPad!
- ☞ If the website knows what device I'm using, it's responding, right?

Responsive Design (Geek)



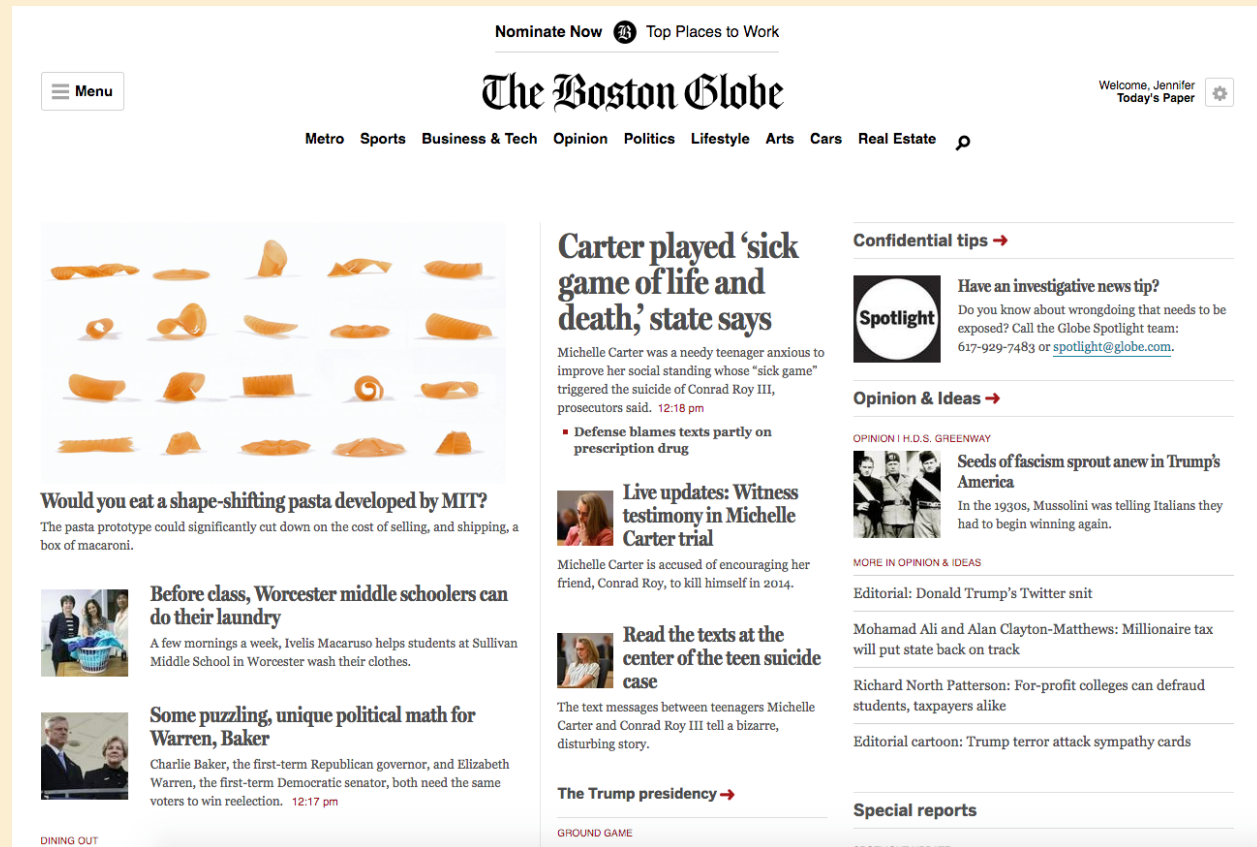
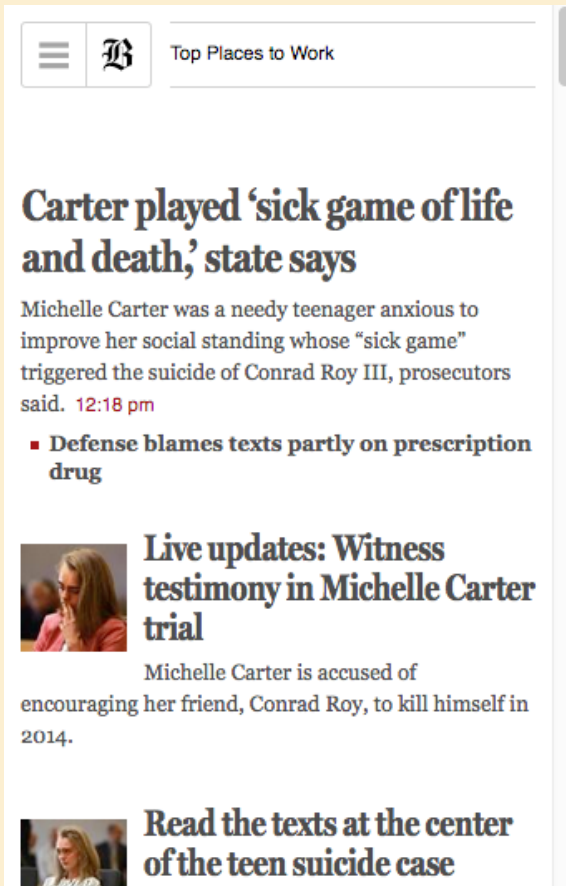
☞ Defined by three characteristics

- Flexible grid-based layout
- Images that resize
- Media queries (CSS3)

☞ www.alistapart.com/articles/responsive-web-design/

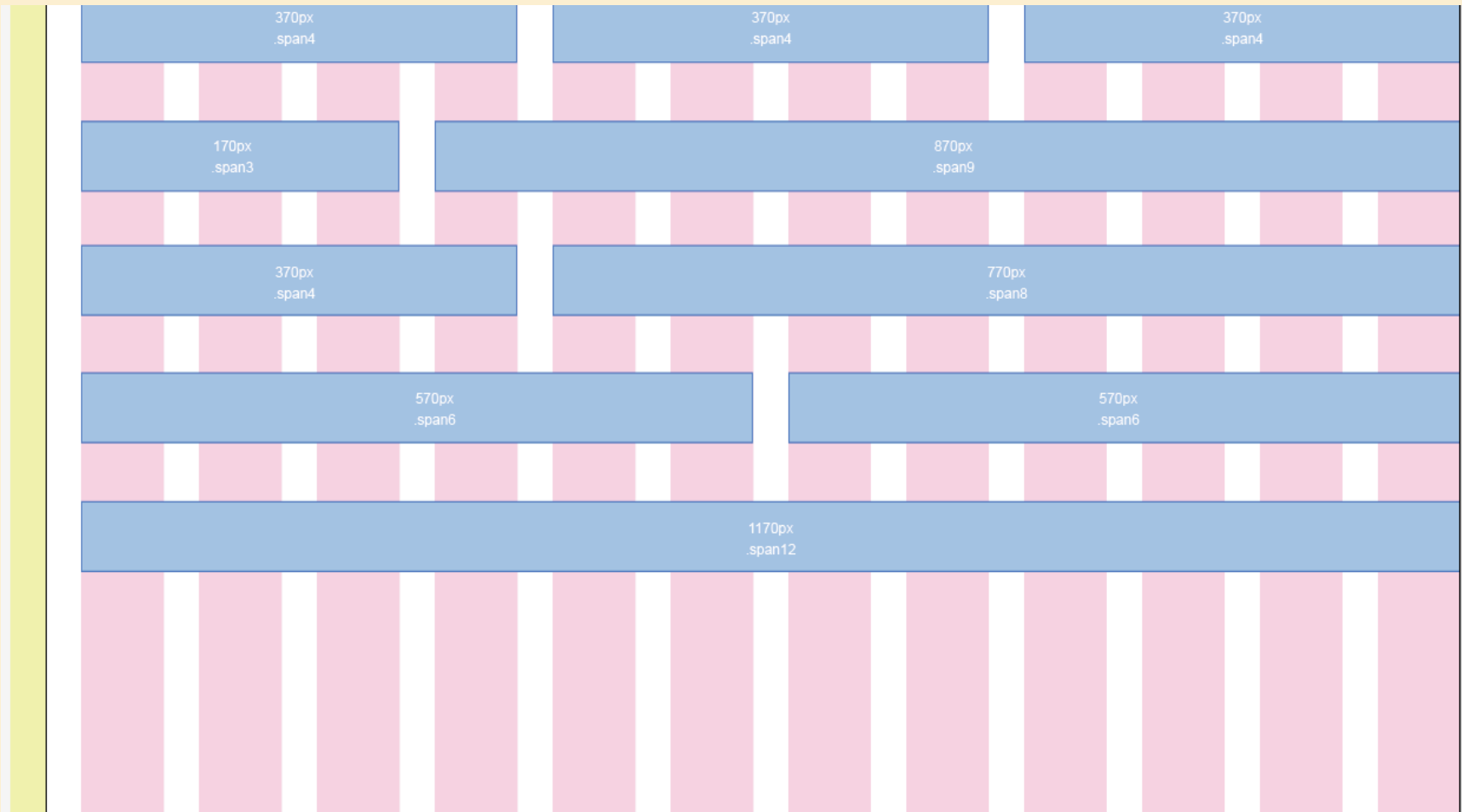
☞ Example:
[Boston Globe](http://www.boston.com)

Responsive design is client side



www.bostonglobe.com

Grid-based layout



Grid-based layout

Contact

Travel Suppliers

Corporations

Government

Product Index


Header 2


Credibly visualize integrated experiences through vertical best practices. At base level, this just comes down to systemized, monitored programming.


Header 3


Enthusiastically generate empowered technology and holistic total linkage. The solution can only be balanced modular processing. Forward-looking companies invest in synchronized **monitored alignment**.

Header 4

Embrace innovative metrics 

Maximize one-to-one action-items 

Empower e-business **definition link** 

Synergized contextually-based external link 

Plan	Sabre GDS	Setup Fee
data		

Plan	Sabre GDS	Setup Fee	Monthly Fee	Agents	Contract Term
Nextion	Included	\$1,250	\$10 - \$500**	Unlimited**	Month-to-Month

Reduce Costs

Customer Service Tools

Manage Your Business

Development Tools

Do That Thing You Do

[Source](#)

CSS3 Media Queries

- ⌘ Browser reports screen resolution
- ⌘ Based on current width, serve a stylesheet with layout for that width
- ⌘ No JavaScript involved



Images that resize

- ∞ Images should change size, based on screen resolution
- ∞ Solutions are still being developed, but they are:
 - Client-side
 - Server-side
 - 3rd party
 - Free
 - Paid



Responsive design is friends with...

- ∞ Static HTML
- ∞ Content management systems
- ∞ Server-side technologies
- ∞ Basically, any way you can build a site



Responsive Design Frameworks

Recently published in **Smashing Magazine**

2013:

[Responsive Design Frameworks: Just Because You Can, Should You?](#)

2017:

[Which Responsive Design Framework Is Best? Of Course, It Depends.](#)

Next up

FLEXBOX

FLEXBOX

- ✎ The first layout elements – but not designed to lay out whole web pages
- ✎ Features flex-containers (row) and flex-items (cells). Both are required to work.
- ✎ Excels at vertical centering and equal heights
- ✎ Very easy to reorder boxes
- ✎ Major disadvantages:
 - Wasn't designed to be locked down for layouts! Works in 1 dimension only.
 - Browser support and syntax is challenging.

Three versions of Flexbox

2009: `display: box;`

2011: `display: flexbox;` ("tweener" syntax)

2016: `display: flex;`

Prefixing may still be required depending on browser support desired

Current support

Internet Explorer

<= IE 9: not supported

IE 10 supports "tweener" syntax (-ms- prefix)

IE 11, Edge: Full support (though buggy in IE 11)

Safari 7.1/8, iOS Safari 7/8 require webkit prefix

Others support current syntax (including Opera!)

<http://caniuse.com/#feat=flexbox>

.ROW/CONTAINER

ITEM/
.COL-1

ITEM/
.COL-1

ITEM/
.COL-1

ITEM/
.COL-1

```
<div class="row">  
  <div class="col-1"></div>  
  <div class="col-1"></div>  
  <div class="col-1"></div>  
  <div class="col-1"></div>  
</div>
```

```
.row {  
    display: flex;  
    flex: 0 1 auto;  
    flex-flow: row wrap;  
    justify-content: center;  
}
```

Change flex-flow to other values to change direction of rows – row reverse, column reverse, no wrap

```
flex: 0 0 24%; /* desktop */
```

```
flex: 0 0 48%; /* tablet */
```

```
flex: 0 0 98%; /* phone */
```

To change widths on `.col-1`, change the `flex-basis` property. This is more flexible than `width`.

```
/* rearranging the columns */
```

```
.col-push-1 {  
    order: 2;  
}
```

```
.col-pull-3 {  
    order: 1;  
}
```


Questions?

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