

JEN KRAMER • HARVARD UNIV EXTENSION SCHOOL

WEEK 11: FLEXBOX

WHAT IS FLEXBOX?

“Provides a more efficient way to lay out, align and distribute space among items in a container, even when their size is unknown and/or dynamic (thus the word "flex").”

Chris Coyer

css-tricks.com/snippets/css/a-guide-to-flexbox/

WHY IS IT AWESOME?

- Excels at vertical centering and equal heights
- Flex property changes the container's width/height to fill available space
 - Expand to fill empty space
 - Shrink to prevent overflow

```
2
3
4  Machine,
5
6  Pls make website,
7
8  all responsive like,
9  w/ BIG pictures ooo,
10 use my fav fonts,
11 also fancy menus with whooosh on,
12 load fast pls
13
14 Thanks,
15 Human
16
17 PS no bugs :)
18
19
```

ANY DRAWBACKS?

Layouts are driven by content and how it loads.

Humanity's victories:



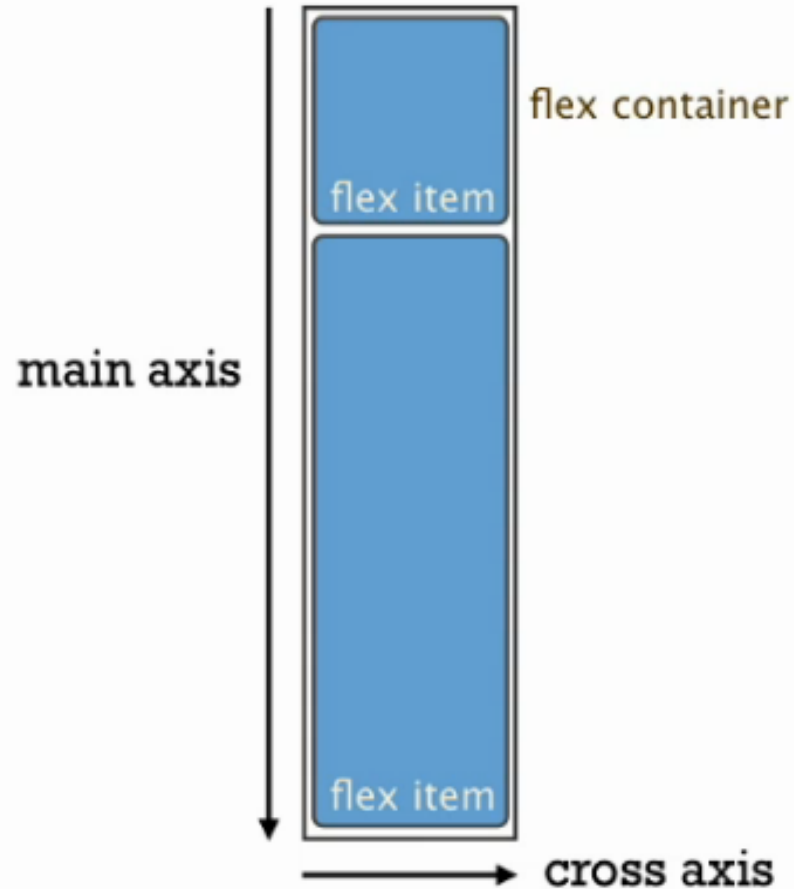
land probe perfectly on a comet 310 million miles away, using science



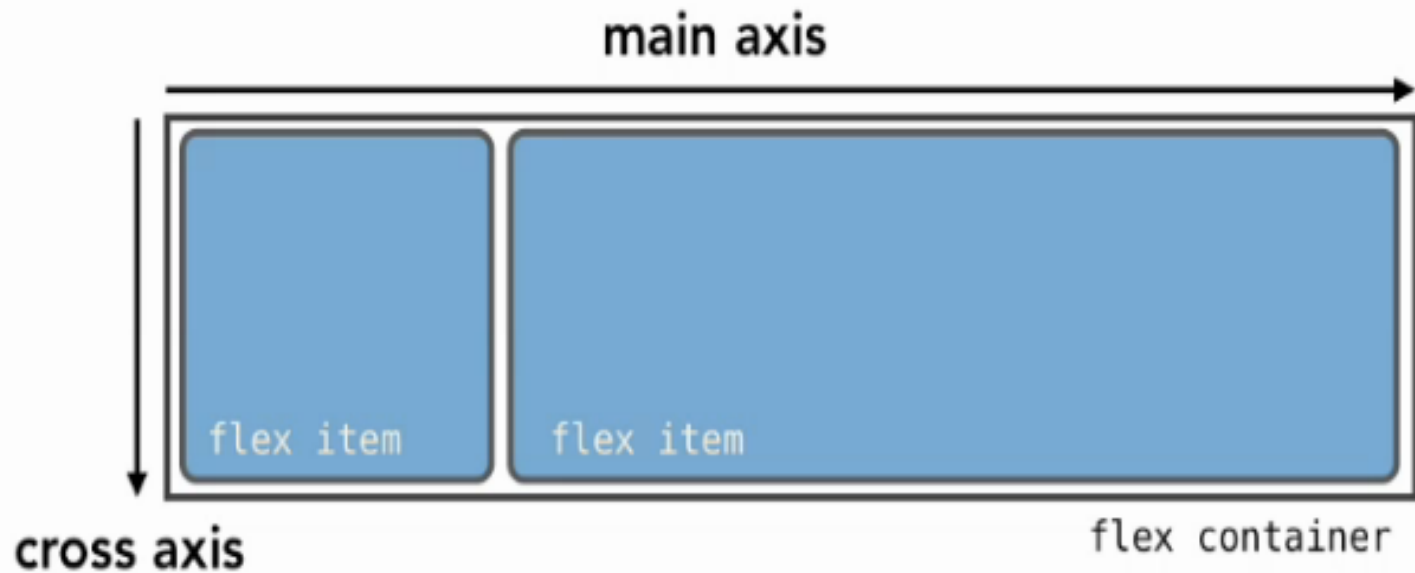
**get stuff on a web page to align properly
using CSS**

TERMINOLOGY

Flex container set to column



Flex container set to row



<http://www.lynda.com/CSS-tutorials/CSS-Flexbox-First-Look/116352-2.html>

PREFIXING

THREE VERSIONS OF FLEXBOX

- 2009: `display: box;`
- 2011: `display: flexbox;` (“tweener” syntax)
- 2016: `display: flex;`

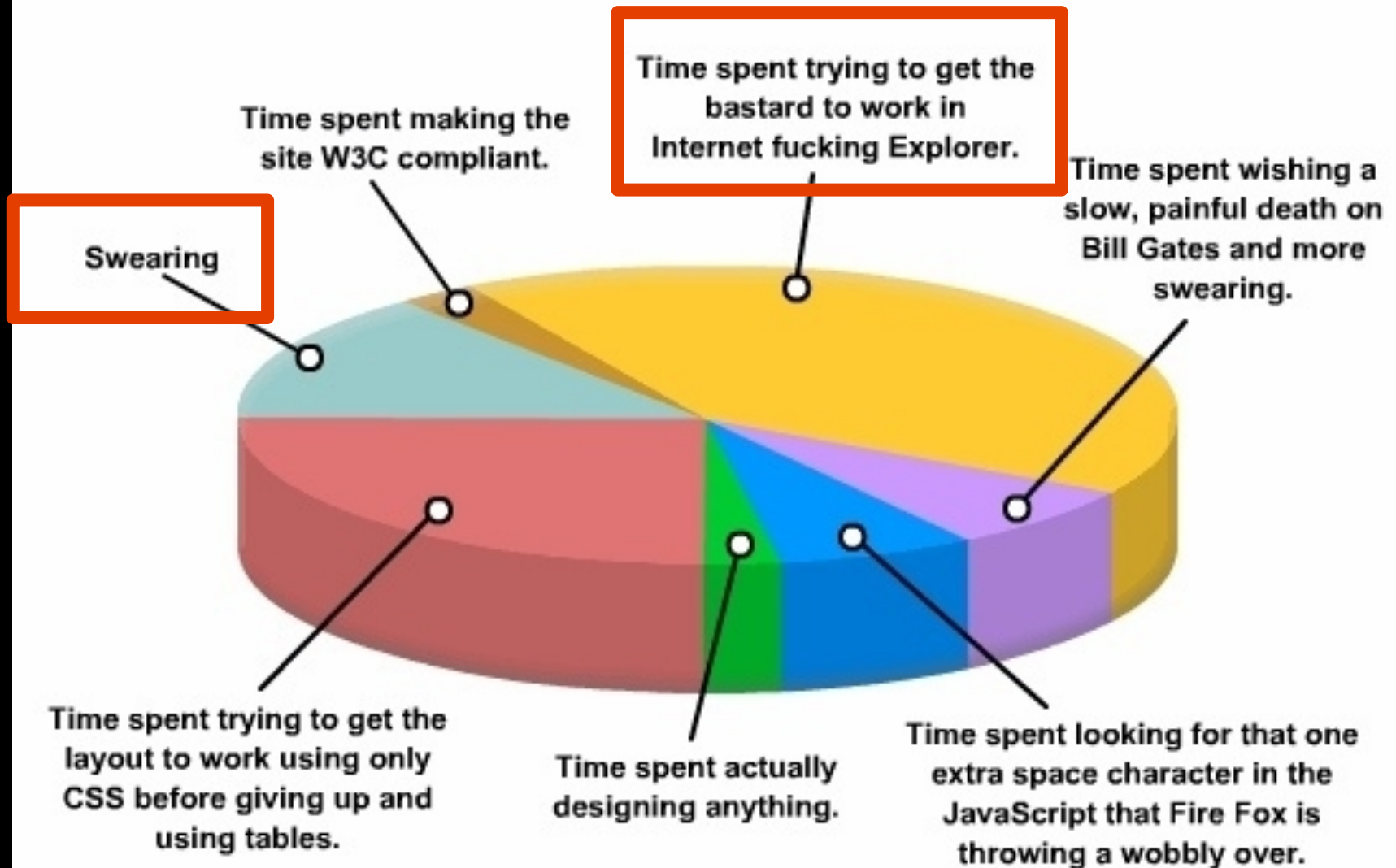
EXAMPLE

```
ul {  
    display: -webkit-flex; /* targets Chrome, Safari */  
    display: -ms-flexbox; /* targets IE10 */  
    display: flex;  
}
```

CURRENT SUPPORT

- Internet Explorer
 - \leq 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
- <http://caniuse.com/#feat=flexbox>

TIME BREAKDOWN OF MODERN WEB DESIGN



LEARN MORE

- [Flexbox in 5](#)
- [Chris Coyer's Complete Guide to Flexbox](#)
- [Smashing Magazine: Harnessing Flexbox for Today's Web Apps](#)
- [Solved by Flexbox](#)
- [Flexy Boxes playground and code generator](#)
- [Getting started with Flexbox grid systems](#)



[Flexbox Froggy](#)

RELEVANT PROPERTIES

Parent (Flex Container)

display: flex | inline-flex;

flex-direction: row | row-reverse |
column | column-reverse;

flex-wrap: wrap | nowrap | wrap-reverse;

flex-flow (shorthand for flex-direction
and flex-wrap)

justify-content: flex-start | flex-end |
center | space-between | space-around;

align-items: flex-start | flex-end | center |
baseline | stretch;

Children (Flex Items)

order: <integer>;

flex-grow: <number>;

flex-shrink: <number>;

flex-basis: <length> | auto;

flex: shorthand for grow, shrink,
and basis (default 0, 1, auto)

align-self: overrides alignment set
on parent