

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/](http://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 whoosh 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:**



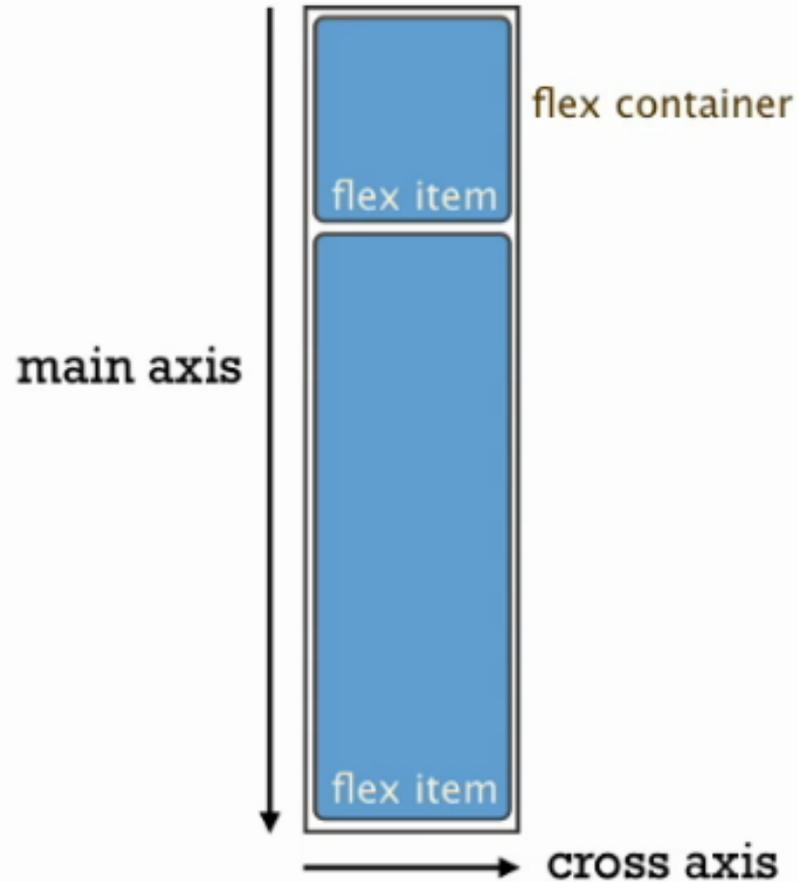
**land probe perfectly on a comet 310 million miles away, using science**



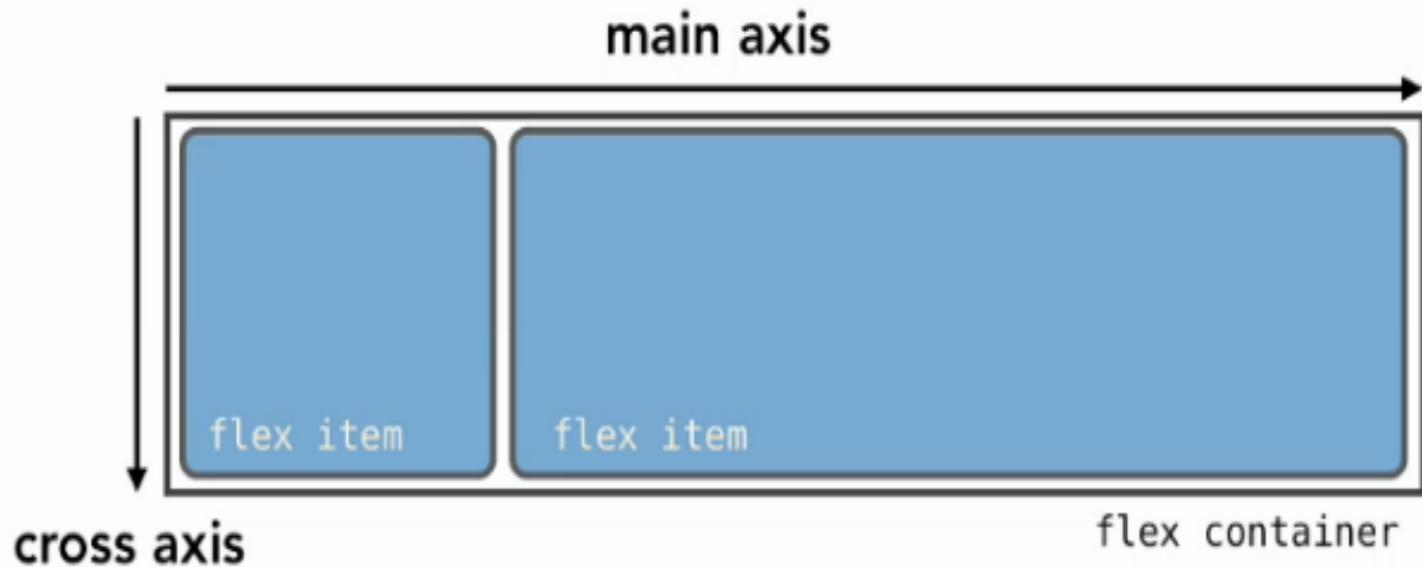
**get stuff on a web page to align properly using CSS**

# TERMINOLOGY

# Flex container set to column



# Flex container set to row



PREFIXING

# THREE VERSIONS OF FLEXBOX

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

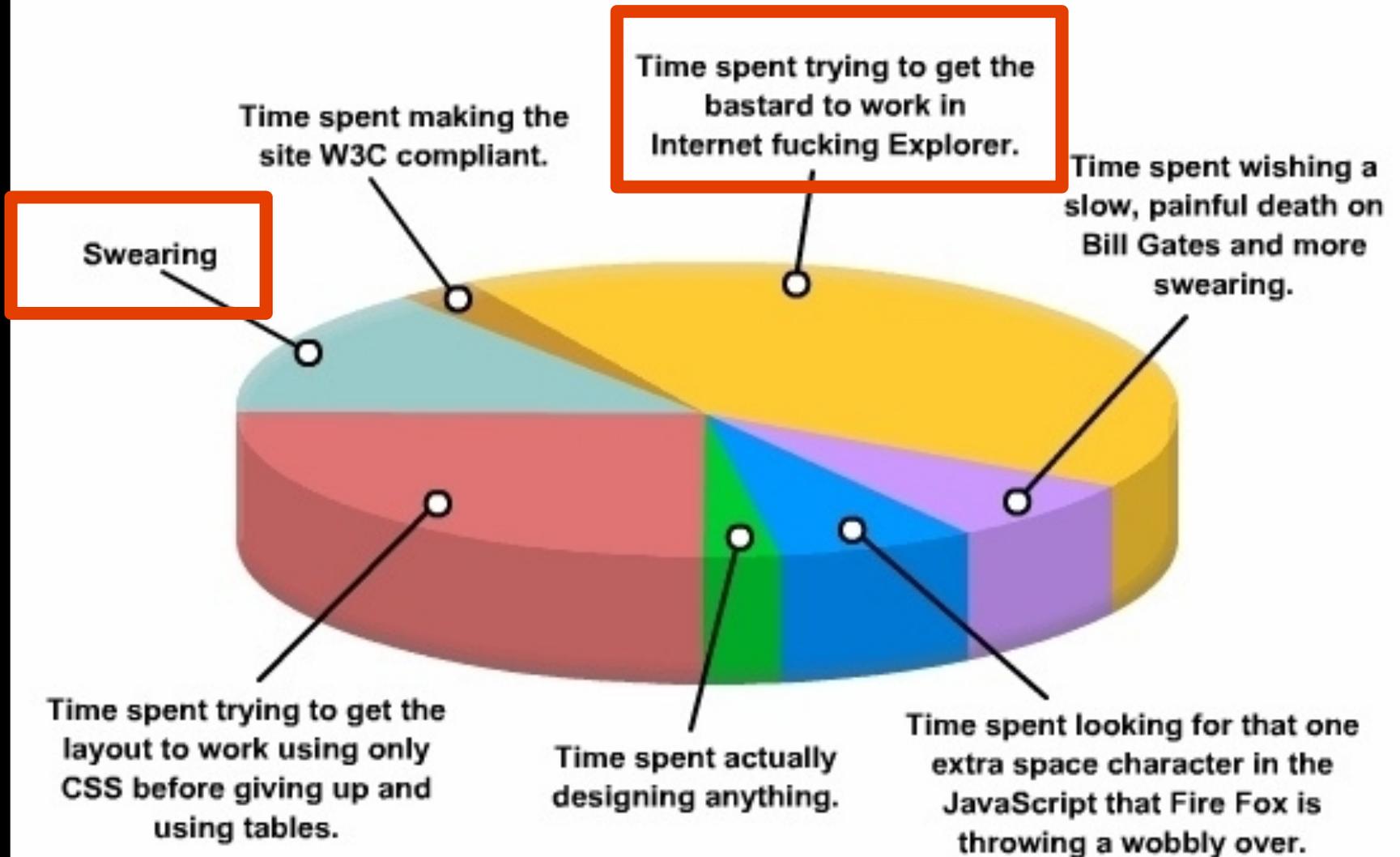
# EXAMPLE

```
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