

Week 13 | Intro to JavaScript

What is JavaScript?

HTML = scaffolding
(Bones / building blocks)

CSS = facade

(Paint / design / what the world sees)

JavaScript = wiring / plumbing
(What makes interactivity work!)

Or, in other words ...



HTML != programming

HTML is a *markup* language, not a programming language.

A *programming* language has logic and makes decisions based
on that logic

If you are Female Male and Hispanic Black Asian White* Native American and LGB Heterosexual and under 45 45-64 over 64

and have not attended college some college associate's degree bachelor's degree higher degree

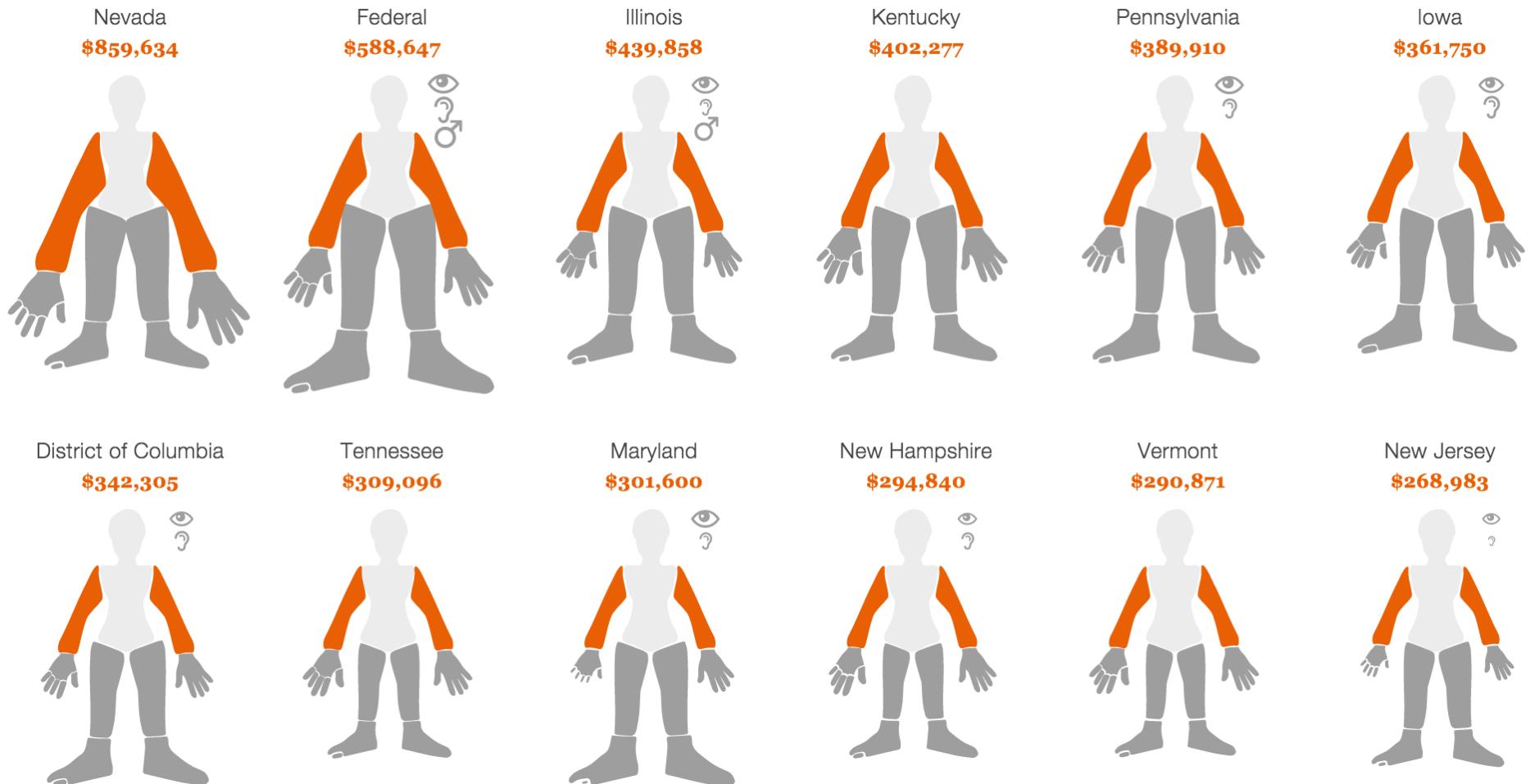
There are **534** people in congress like you [Twitter icon](#) [Facebook icon](#)

(Does not include one open seat, up for special election)



Via Guardian

The average maximum compensation for one **Arm** in **The USA** is **\$169,878**



Via ProPublica



Via Rue 89

Are You Good Enough to Be a Tennis Line Judge?

Watch a series of shots at full speed and decide whether each was in or out. Some will be traveling upwards of 100 miles per hour and you only get one chance to make the call. Good luck!

 Turn on audio to hear when the player hits the ball.

CENTER SERVICE LINE
EASY

BASELINE
MEDIUM

SERVICE LINE
HARD

SIDELINE
EXPERT



Via Wall Street Journal



The Counted

People killed by police in the US

[SEND A TIP](#)[DATABASE](#)[ABOUT](#)[READ MORE](#)[JOIN US:](#)

NOVEMBER 24

Michael Kirvelay, 45
Gunshot

Minnesota

NOVEMBER 24

Freddy Baez, 24
Gunshot

New Jersey

NOVEMBER 23

Henry Reyna, 49
Gunshot

Texas

NOVEMBER 23

Barry Kirk, 50
Gunshot

Ohio

NOVEMBER 22

Miguel Martinez, 28
Gunshot

Colorado

NOVEMBER 22

Mathew Grows, 45
Gunshot

Nevada

NOVEMBER 22

James Hall, 46
Gunshot

California

NOVEMBER 21

Christopher Nichols, 24
Gunshot

Oklahoma

NOVEMBER 20

William Tarrant, 39
Gunshot

Georgia

NOVEMBER 20

Unknown
Gunshot

California

NOVEMBER 20

Chase Sherman, 32
Taser

Georgia

NOVEMBER 19

Le Dormil, 27
Gunshot

Florida

NOVEMBER 19

Randy Smith, 34
Gunshot

Florida

NOVEMBER 19

Nathaniel Pickett, 29
Gunshot

California

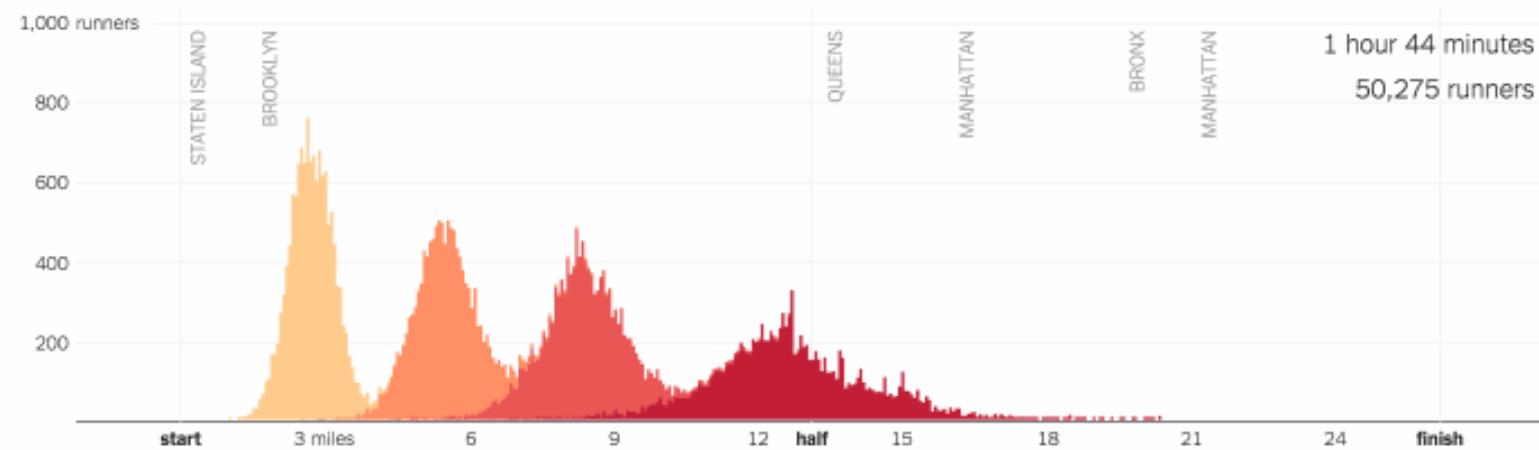
NOVEMBER 19

Darick Napper, 34
Gunshot

District of Columbia

Via Guardian

50,000 Runners, Moving in Waves



Via [NY Times](#)

When to use interactivity:

- to allow users to explore the data (ex. hover)
 - to show multiple views of the data
- to better explain a concept (ex. through animation)
- when user input helps to better understand the story

Bottom line:

- use interactivity to make your page or graphic more engaging
- use it to help the reader understand the story better

When NOT to use interactivity:

- when it adds confusion rather than clarity
- when it's cool, but doesn't add anything to the reader's understanding
 - when it leads to information overload
- when user input doesn't give a new/better experience

So what is programming?

Giving the computer a set of instructions to do something

JavaScript = programming language

A common set of instructions that both the computer and you
can understand

"Computer, draw a line."

"Computer, hide this box when I click."

"Now, make the box red. And make it bigger."

"The amazing thing about JavaScript is that it is possible to get work done with it without knowing much about the language, or even knowing much about programming."

– Douglas Crockford, author of *JavaScript: The Good Parts*

Though... "It is even better when you know what you're
doing."

Today we'll cover how to:

- show/hide elements
 - change colors
 - swap out text
- perform different actions based on different conditions
 - make some calculations

To begin, let's open our browser consoles ...
... and alert the world that we're learning JavaScript!

1. How to hide elements with JavaScript

Function

A block of code that tells the computer to execute a particular task

```
function doSomething() {  
    // write code here!  
}
```

2. How to change colors and other styles

3. How to swap out text



4. How to make conditional statements (if/else)

Variables

Containers for storing data values

```
var name = "Nadja";
```

Data types

- Numbers (1, 2, 3.14, 100000, etc.)

```
var num = 3.14;
```

- Strings ("Nadja", "I love my pet cat, Wally.", etc.)

```
var sentence = "I love my pet cat, Wally.;"
```

- Boolean values (True, False)

```
var isCUNYinstructor = true;
```

5. How to calculate!

Comparison operators:

- `>` Greater than
- `<` Less than
- `<=` Less than or equal to
- `>=` Greater than or equal to
- `==` Equal to
- `!=` **Not** equal to

BREAK!

Today's exercises:

<http://bit.ly/js-exercises>