AGENDA
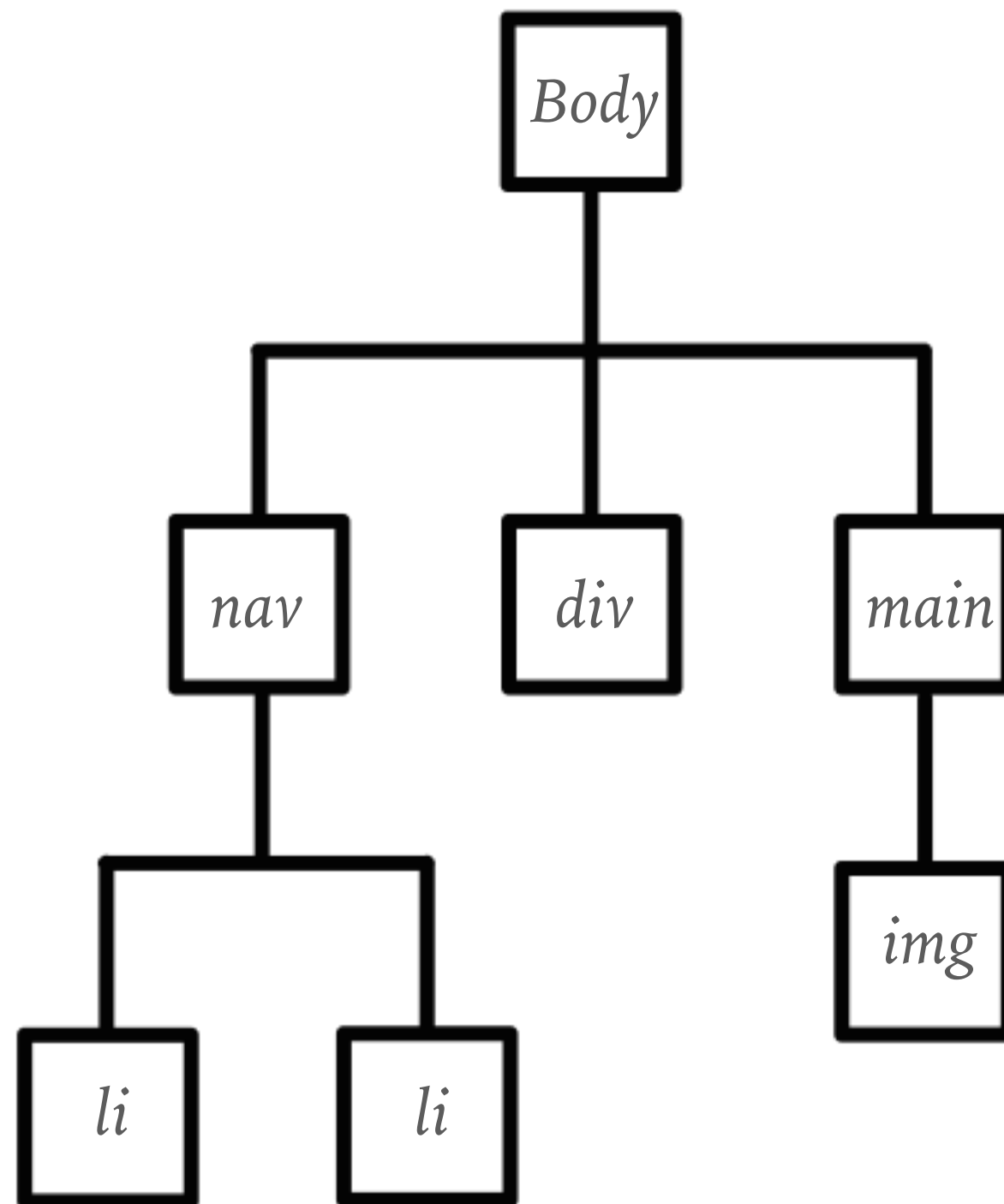
➤ Quick DOM Review

➤ jQuery

THE DOM

NOPE.

YUP.

THE DOM

➤ What is the DOM?

    ➤ Document Object Model

    ➤ What the browser does with HTML

    ➤ Internal representation of a web page

" The DOM states what your script can ask the browser about the current page, and how to tell the browser to update what is being shown to the user.
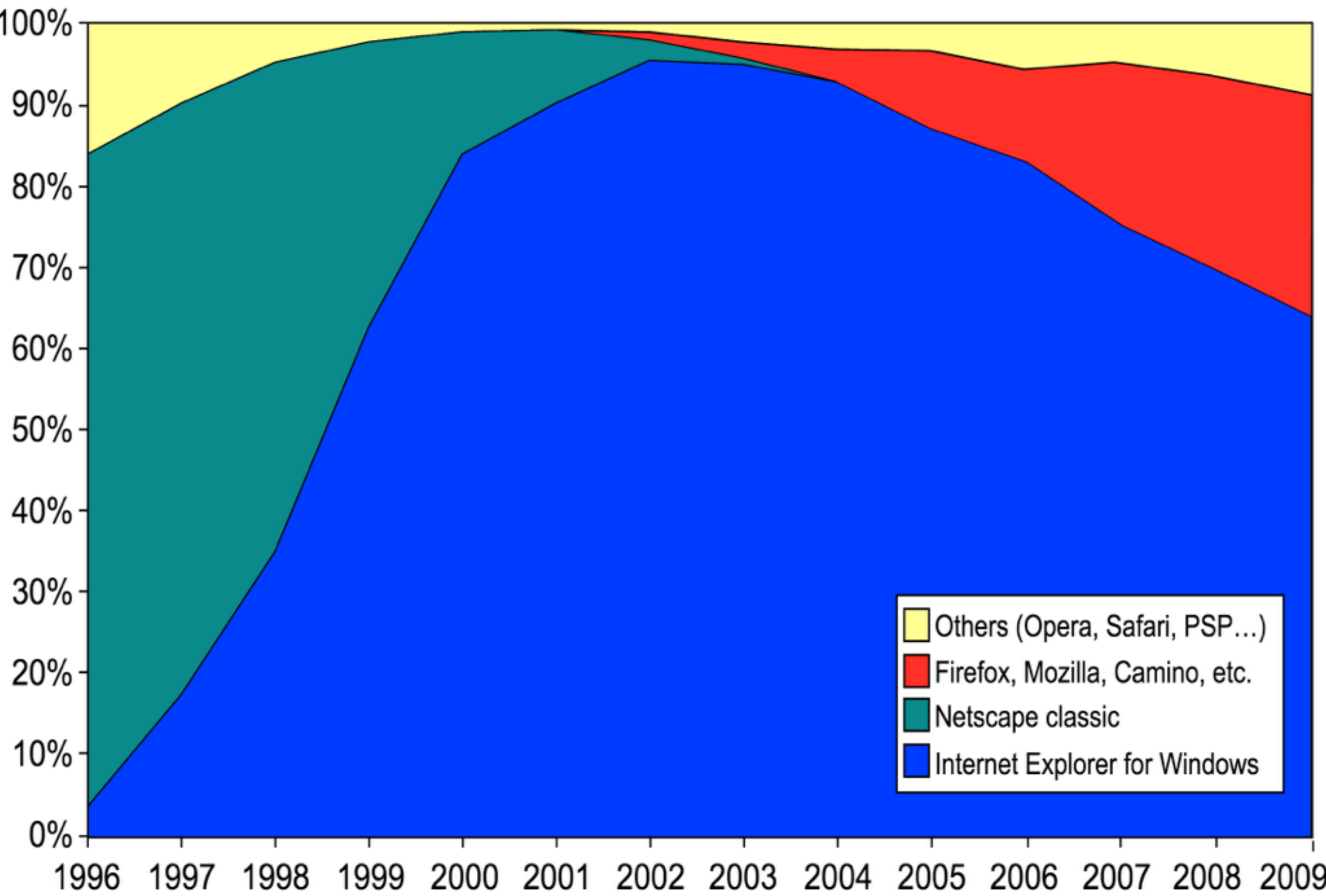
-Jon Duckett

THE DOM

➤ What can you do with the DOM?

  ➤ Find elements:

   ➤ `var el = document.getElementById('articles');`
   ➤ `var els = document.getElementsByTagName('li');`
   ➤ `var els = document.querySelectorAll('#articles > li');`

  ➤ Change elements:

   ➤ `document.getElementById('articles').innerHTML = '<h1>News</h1>';`
   ➤ `document.getElementById('articles').textContent = 'News';`
   ➤ `document.getElementById('articles').innerText = 'News1';`

  ➤ Also:

   ➤ Add and remove elements

   ➤ Read attributes and values

   ➤ Navigate the tree… Manage user interactions, events, etc…

JQUERY

Browser Wars

Legend:
- Others (Opera, Safari, PSP...)
- Firefox, Mozilla, Camino, etc.
- Netscape classic
- Internet Explorer for Windows

Y-axis: 0%, 10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%

X-axis: 1996, 1997, 1998, 1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006, 2007, 2008, 2009

JQUERY

➤ What is it, exactly?

   ➤ A JavaScript library (6,358 LOC)

   ➤ That provides an API for:

      ➤ DOM selection

      ➤ DOM manipulation

      ➤ DOM traversal

      ➤ Event management

      ➤ AJAX

      ➤ …and more

Call the "jQuery function", aliased to a single character

Use CSS3 Selectors to identify 1 or more DOM elements

Then take action with them

```
$('selector string’).actionToPerform(args);
```

VANILLA JAVASCRIPT: FADE IN

```
1  function fadeIn(el) {
2    el.style.opacity = 0;
3
4    var last = +new Date();
5    var tick = function() {
6      el.style.opacity = +el.style.opacity + (new Date() - last) / 400;
7      last = +new Date();
8
9      if (+el.style.opacity < 1) {
10       (window.requestAnimationFrame && requestAnimationFrame(tick)) ||
           setTimeout(tick, 16)
11     }
12   };
13
14   tick();
15 }
16
17 fadeIn(el);
```

JQUERY: FADE IN

```
1  $(el).fadeIn();
```

http://youmightnotneedjquery.com/#fade_in

VANILLA JAVASCRIPT: FILTER

```
1  Array.prototype.filter.call(document.querySelectorAll(selector), filterFn);
```

JQUERY: FILTER

```
1  $(selector).filter(filterFn);
```

http://youmightnotneedjquery.com/#fade_in

VANILLA JAVASCRIPT: MATCHES SELECTOR?

```
1 var matches = function(el, selector) {
2   return (el.matches
          || el.matchesSelector
          || el.msMatchesSelector
          || el.mozMatchesSelector
          || el.webkitMatchesSelector
          || el.oMatchesSelector).call(el, selector);
3 };
4
5 matches(el, '.my-class');
```

JQUERY: MATCHES SELECTOR?

```
1 $(el).is('.my-class');
```

http://youmightnotneedjquery.com/#matches_selector

VANILLA JAVASCRIPT: TOGGLE A CLASS

```
1  if (el.classList) {
2    el.classList.toggle(className);
3  } else {
4    var classes = el.className.split(' ');
5    var existingIndex = classes.indexOf(className);
6
7    if (existingIndex >= 0)
8      classes.splice(existingIndex, 1);
9    else
10     classes.push(className);
11
12   el.className = classes.join(' ');
13 }
```

JQUERY: TOGGLE A CLASS

```
1  $(el).toggleClass(className);
```

http://youmightnotneedjquery.com/#toggle_class

VANILLA JAVASCRIPT: GET JSON FROM A SERVER

```javascript
1  var request = new XMLHttpRequest();
2  request.open('GET', '/my/url', true);
4  request.onload = function() {
5    if (request.status >= 200 && request.status < 400) {
6      // Success!
7      var data = JSON.parse(request.responseText);
8    } else {
9      // Server returned an error
10   }
11 };
12 request.onerror = function() {
13   // There was a connection error
14 };
15 request.send();
```

JQUERY: GET JSON FROM A SERVER

```javascript
1  $.getJSON('/my/url', function(data) {
2    // Do something with the data
3  });
```

http://youmightnotneedjquery.com/#json

JQUERY CHEAT SHEET

http://oscarotero.com/jquery/

JQUERY IN ACTION

JQUERY

➤ From jquery.com:

➤ jQuery is a fast, small, and feature-rich JavaScript library.

➤ It makes things like HTML document traversal and manipulation, event handling, animation, and Ajax much simpler with an easy-to-use API that works across a multitude of browsers.

" jQuery is a fast, small, and feature-rich JavaScript library.

It makes things like HTML document traversal and manipulation, event handling, animation, and Ajax much simpler with an easy-to-use API that works across a multitude of browsers.

With a combination of versatility and extensibility, jQuery has changed the way that millions of people write JavaScript.

-jquery.com

RECAP

RECAP

➤ You need work closely with the DOM

➤ Your app is logic to dictate what the DOM looks like, and what it does

➤ jQuery will boost your DOM skills

➤ …which makes your apps more maintainable, and more fun to write.

RESOURCES AND ATTRIBUTIONS

➤ https://blingee.com/blingee/view/113822655-Dom-Fast-Furious-

➤ https://en.wikipedia.org/wiki/Browser_wars