

Browser Bugs & Validation

SIPB Introduction to Web Design
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Lecture Overview

- * A Brief Review: Layout Design
- * Browser Bugs
- * Validation
- * Accessibility
- * Site Infrastructure & Organization

The Rendering Issue

- * W₃C produces specifications for CSS
 - * Defines valid properties and values
 - * Defines how properties/values affect final rendering
 - * Does not specify how to generate rendered page
 - * Each browser implements own rendering methods
 - ➔ Potential for rendering errors
- * CSS 2, recommended in 1998 has just recently been fully supported

Rendering Engines

Trident



Gecko



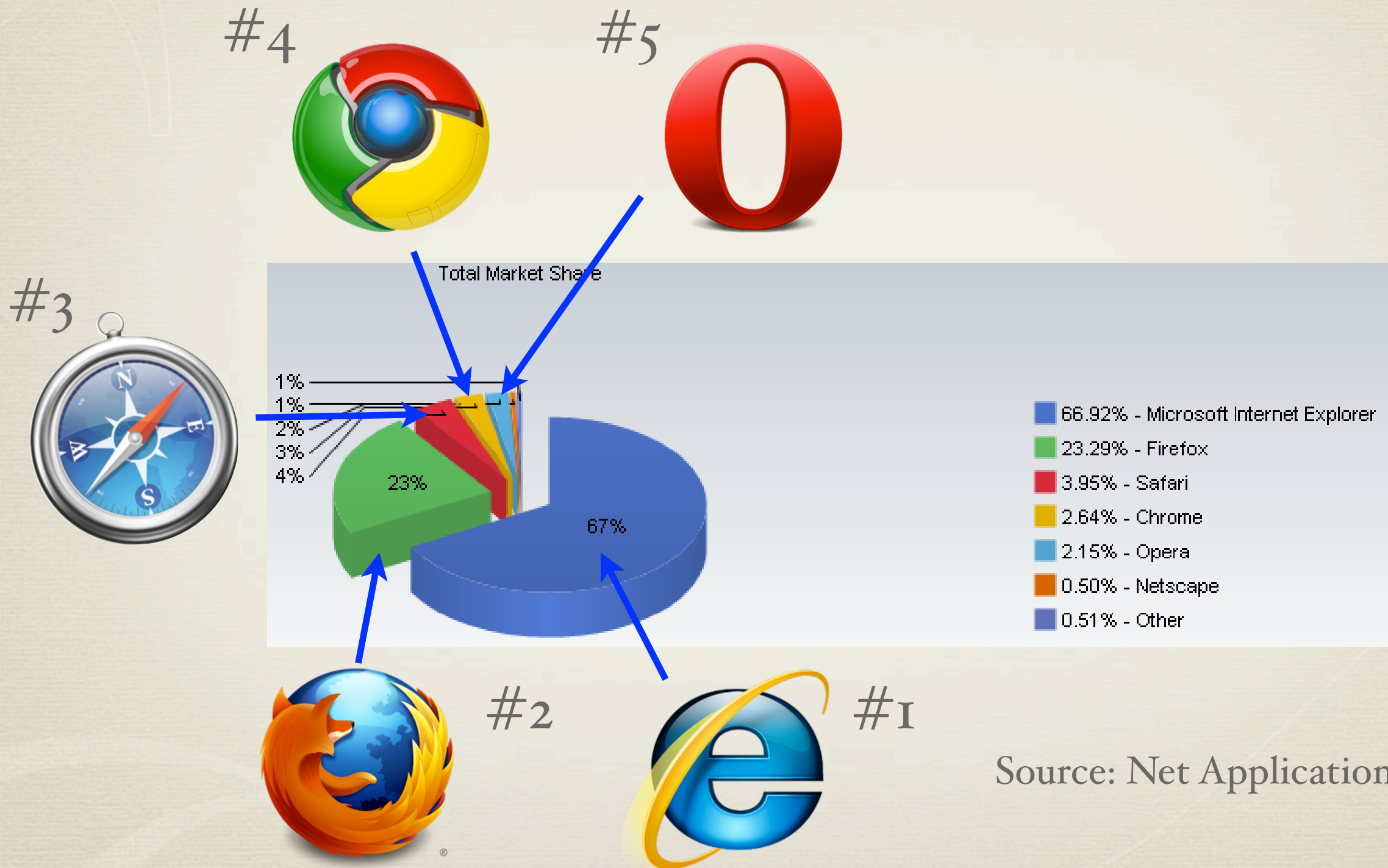
WebKit



Presto



Browser Market Share



Source: Net Applications

A Bit of History

- * With IE 6, Microsoft won the browser wars
- * Microsoft allowed IE development to lapse
- * IE pre-installed on Microsoft Windows
 - ➔ Large default market share
- * Firefox
 - * Developed as open-source alternative from Netscape
- * Webkit
 - * Open-source engine used by Safari & Google Chrome

Internet Explorer Bugs

- * Expanding Box Problem
 - * Width: Outer box will always expand to fit contents
 - * Height: Outer box's height acts as minimum height
- * Float Model Problem I
 - * Non-floated content beside float does not flow
- * Float Model Problem II (a.k.a “Escaping Floats”)
 - * Incorrect rendering of multiple floats

Dealing with Browser Bugs

- * Ensure that your markup and CSS are valid
- * Develop in a standards-compliant browser
 - * Test in other compliant browsers
- * Test last in IE, make changes as appropriate
 - * Conditional comments to apply IE-specific fixes
- * Avoid using Javascript to determine browser

Conditional Comments

- * Proprietary IE method for conditionally parsing content
- * Target code is wrapped within a comment block
 - * Parsed by browser based on condition given
 - * Can be used to include non-valid or IE-specific CSS
- * Included in comments
 - ➔ Ignored by other browsers
 - ➔ Valid markup & CSS (Ignored by validator)

Conditional Comments

A Basic Example

```
<!-- [if IE]>  
  <strong>Why are you using IE?</strong>  
<![endif]-->
```

A Practical Example

```
<!-- [if IE 6]>  
  <link rel="stylesheet" href="ie6.css" />  
<![endif]-->
```

➔ Include stylesheets only for IE (or a specific IE version)

Validation

- * Why validate?
 - * Ensures document is well-formed and functional
 - ➔ Best starting point for cross-browser support
 - * Enables potential forward-compatibility
 - * Assists in finding document errors
- * How?
 - * Using official W₃C validators

W3C Validation Service

- * Validators for both HTML & CSS
- * Allows for validation by link, upload, and direct input
- * Provides list of validation errors and suggestions
 - * Page is not valid even if there is only one error
- * Links to validation results can be included on pages