

# Mission Impossible

[adam-bien.com](http://adam-bien.com)

blog.adam-bien.com  
workshops.adam-bien.com

airhacks.news  
airhacks.io



press.adam-bien.com

# Real World Java EE Night Hacks

Dissecting the Business Tier

[ Iteration One ]

CDI REST JPA2 JMX

EJB 3.1 JAX-RS Maven 3 Java EE

ScalaTest Hudson DevOps BASE

Arquillian JUnit CI Stress Test

X-RAY

Adam Bien

Foreword by James Gosling

REAL WORLD

# JAVA EE PATTERNS

RETHINKING BEST PRACTICES



Adam Bien

adam-bien.com



# Adam Bien's Workshops

Munich (MUC) Airport Workshops, 13th, Winter Edition:

Java EE 7 Bootstrap, December 12th, 2016

also available as: [Streaming / Download Edition]

Effective Java EE 7, December 13th, 2016

also available as: [Streaming / Download Edition]

Java EE 7 Architectures, December 14th, 2016

Microservices With Java EE 7 and Java 8, December 15th, 2016

also available as: [Streaming / Download Edition]

Java EE 7 Testing, Deployment, Automation and Code Quality,  
December 16th, 2016

also available as: [Streaming / Download Edition]

Dedicated Virtual Workshops [on demand]

NEW:

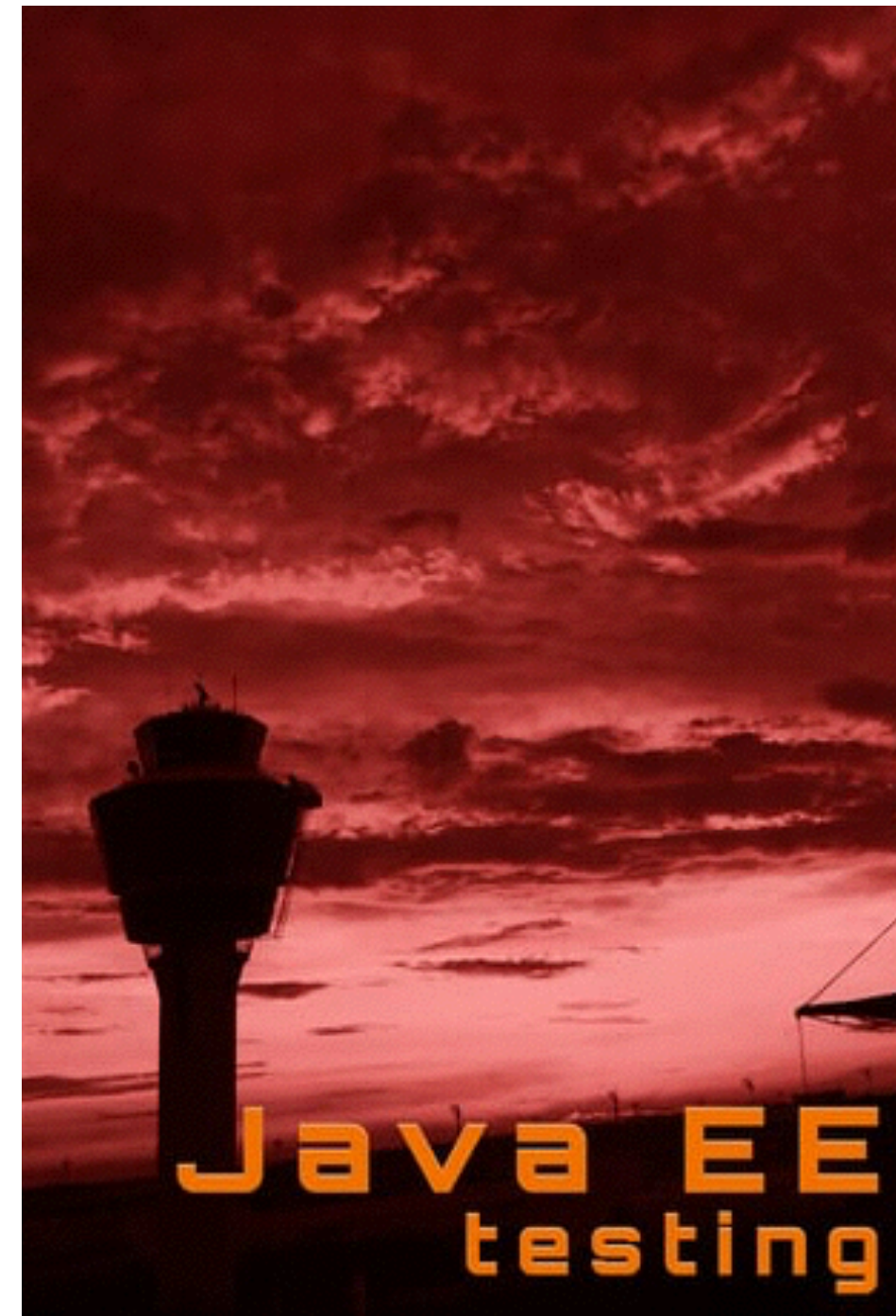
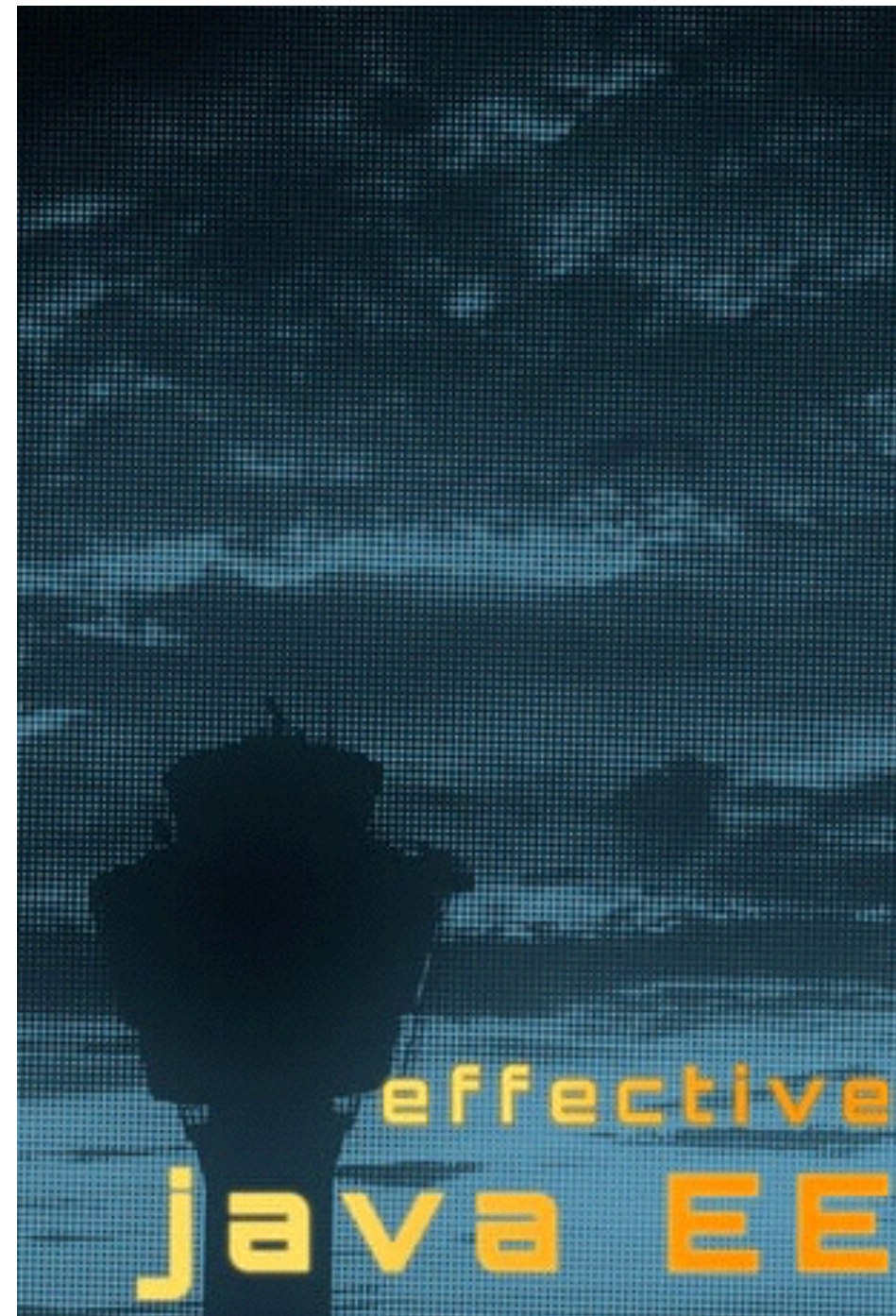
Building HTML 5 Applications With React, October 24th, 2016

NEW:

Building HTML 5 Applications With Angular 2, October 25th,  
2016

[adam-bien.com](http://adam-bien.com)





[airhacks.io](http://airhacks.io)



airhacks.TV

[adam-bien.com](http://adam-bien.com)

Dynamic HTML,  
JavaScript, CSS?

# Document Object Model (DOM) Level 3 Core Specification



# What is HTML 5?

# Semantics / New Elements



# Microdata

# New Input Types



# Webstorage

# Geolocation



# WebSockets

Offline



# Canvas

# Web Components



# What Is CSS 3?

# display

- block (<div>)
- inline (<span>)
- inline-block
- none

# box model

- margin
- padding
- box-sizing (no math)

# position

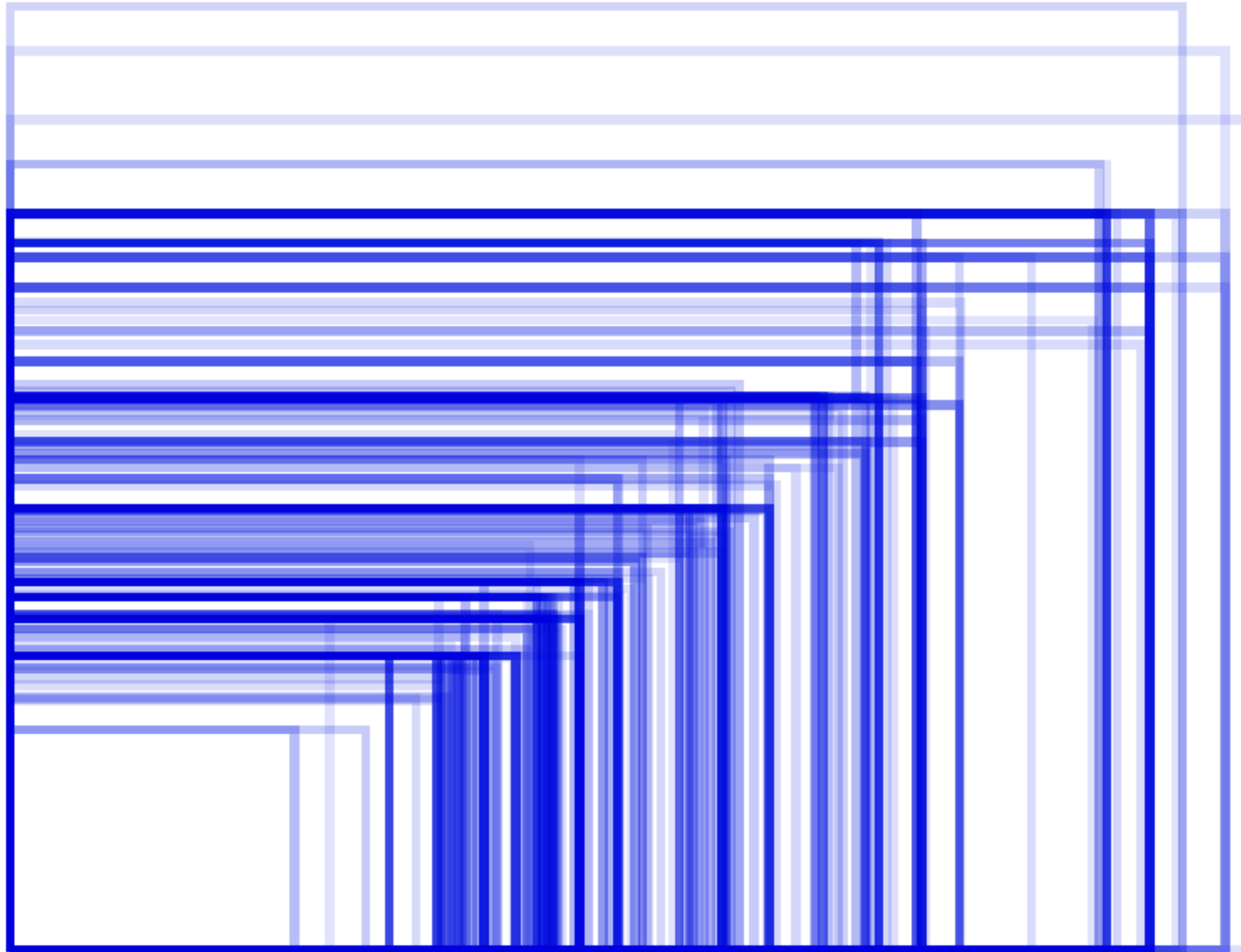
- static (default, not positioned)
- fixed (stays at the same place)
- absolute (fixed and relative to the nearest positioned ancestor)
- relative (top, left, right, bottom)



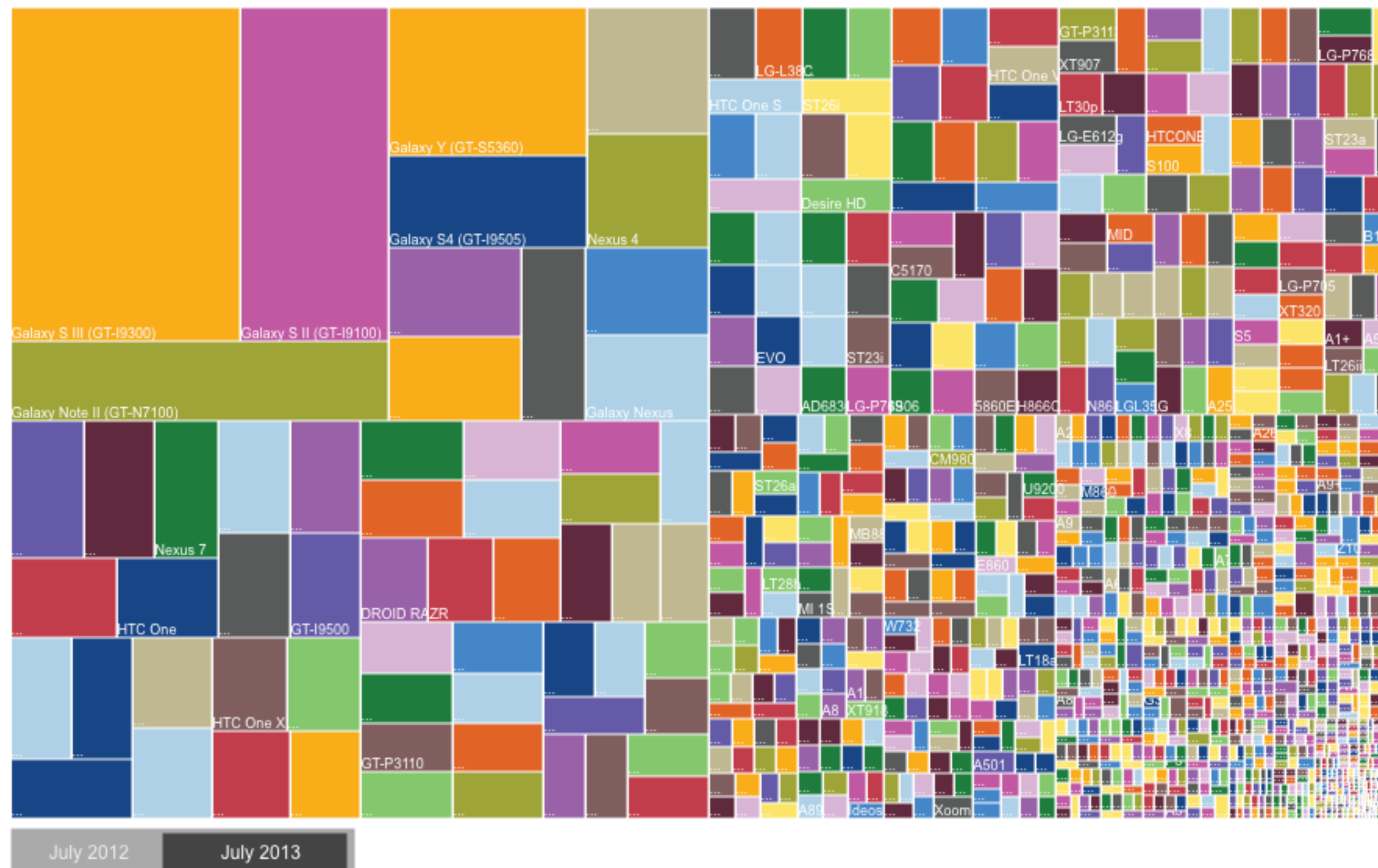
# float

- left, right
- clear: left, right, both

# The Gadget Trouble



## DEVICE FRAGMENTATION



11,868

Distinct Android devices seen this year

3,997

Distinct Android devices seen last year

682,000

Devices surveyed for this report.

47.5%

Samsung's share of those devices.

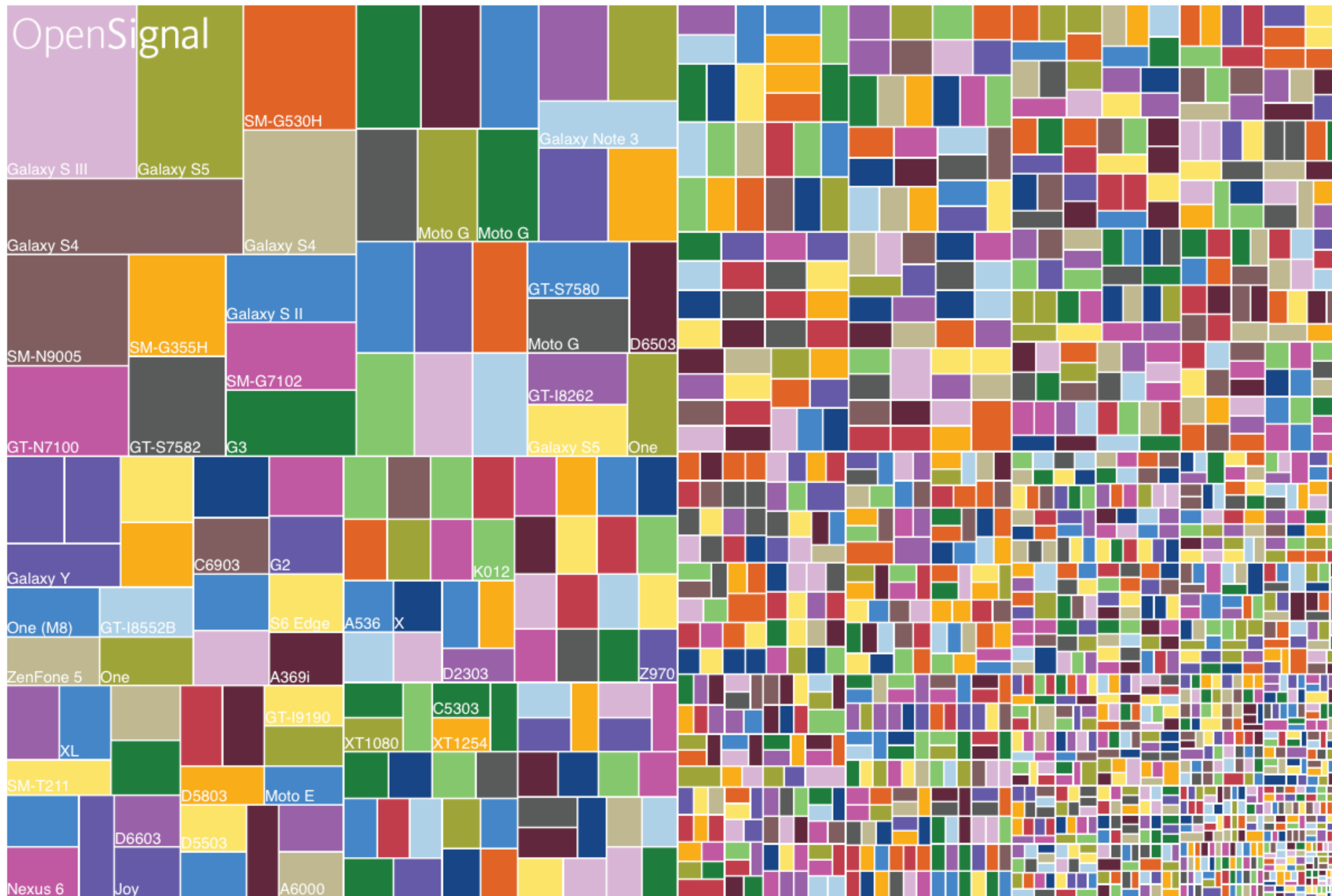
8

Android versions still in use

37.9%

Android users on Jelly Bean





August 2014 August 2015

24,093

Distinct Android devices seen this year

18,796

Distinct Android devices seen last year

682,000

Devices surveyed for this report.

37.8%

Samsung's share of those devices.

1,294

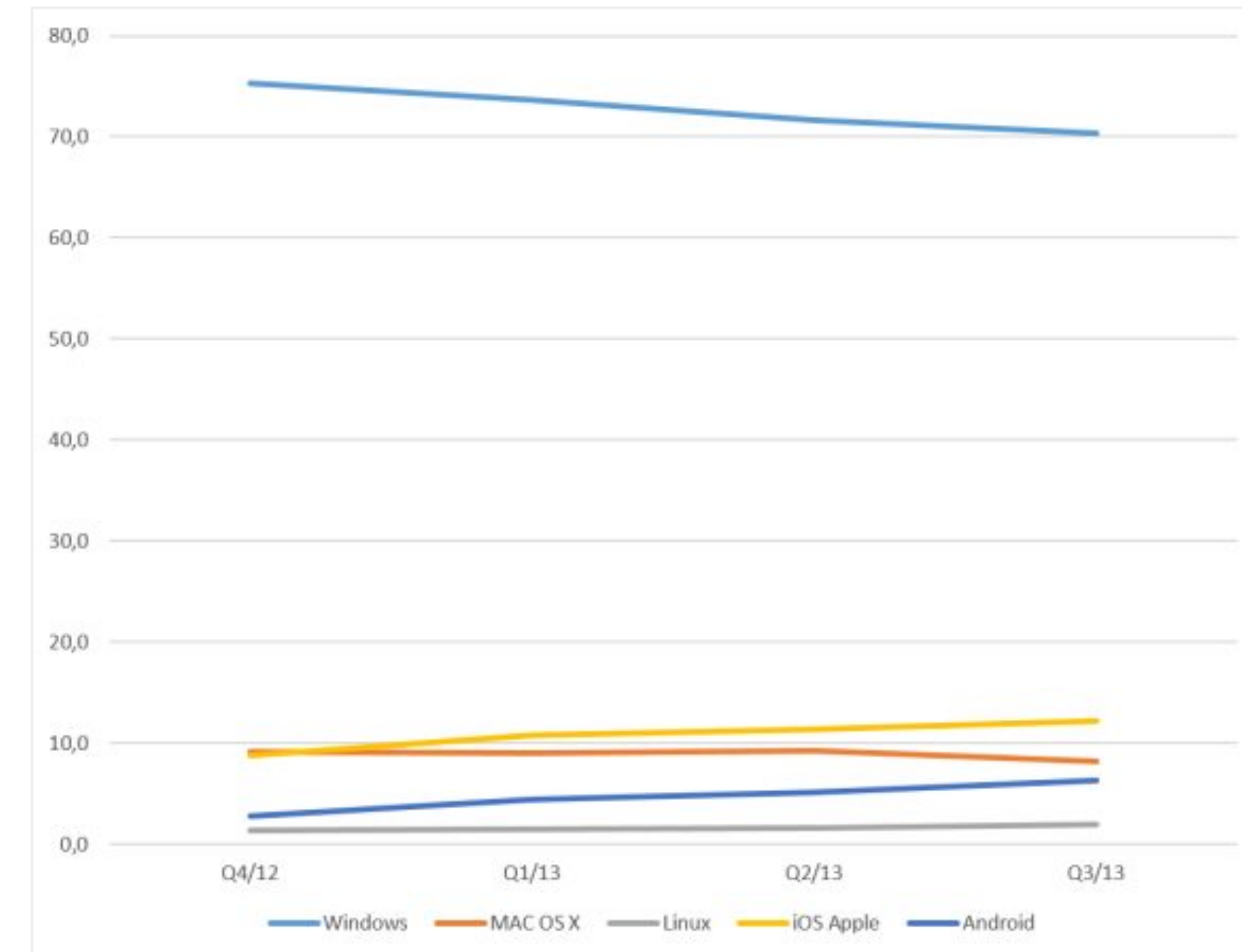
Device brands seen this year

# Betriebssystem

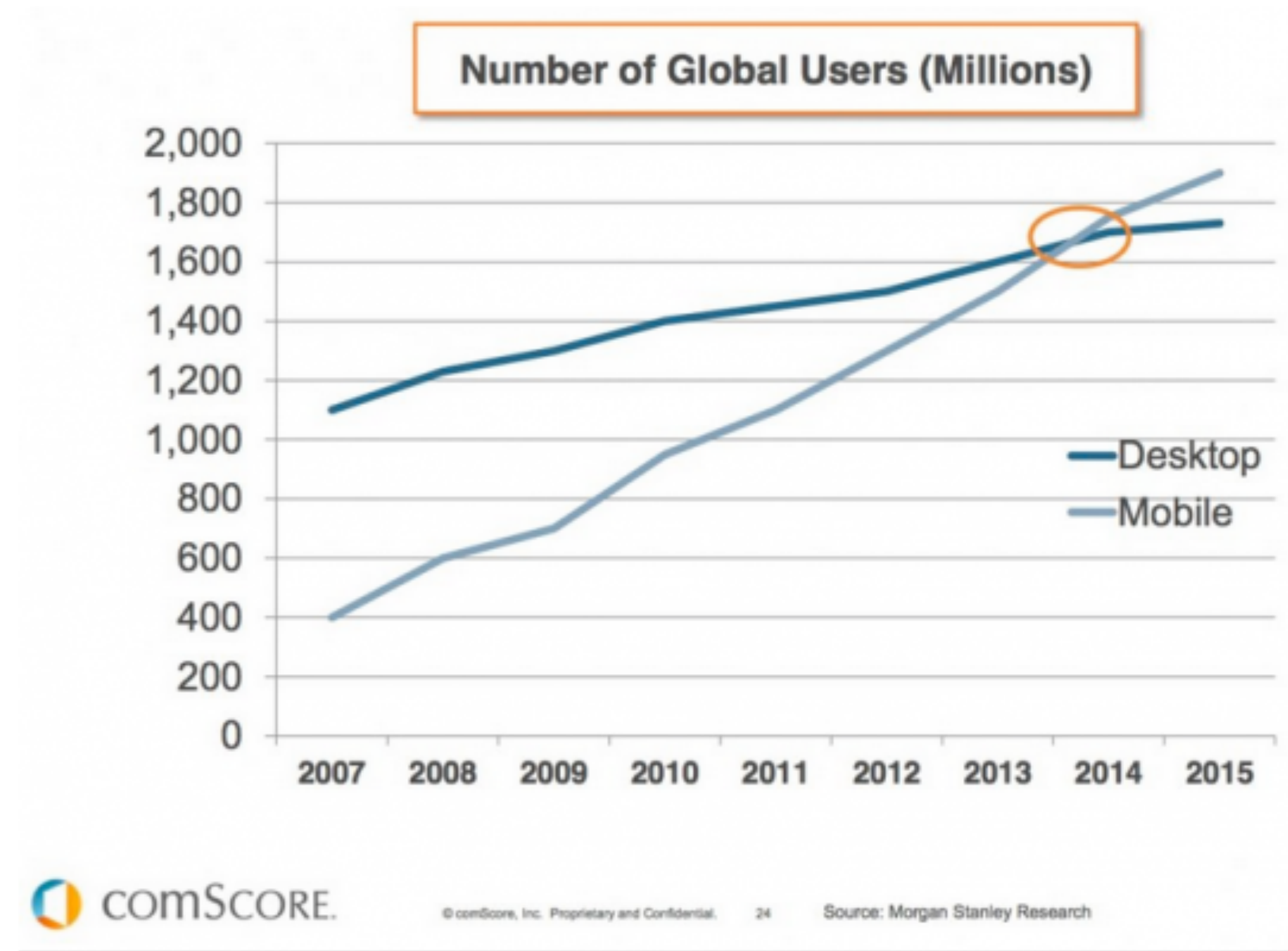
## 3. Quartal 2013

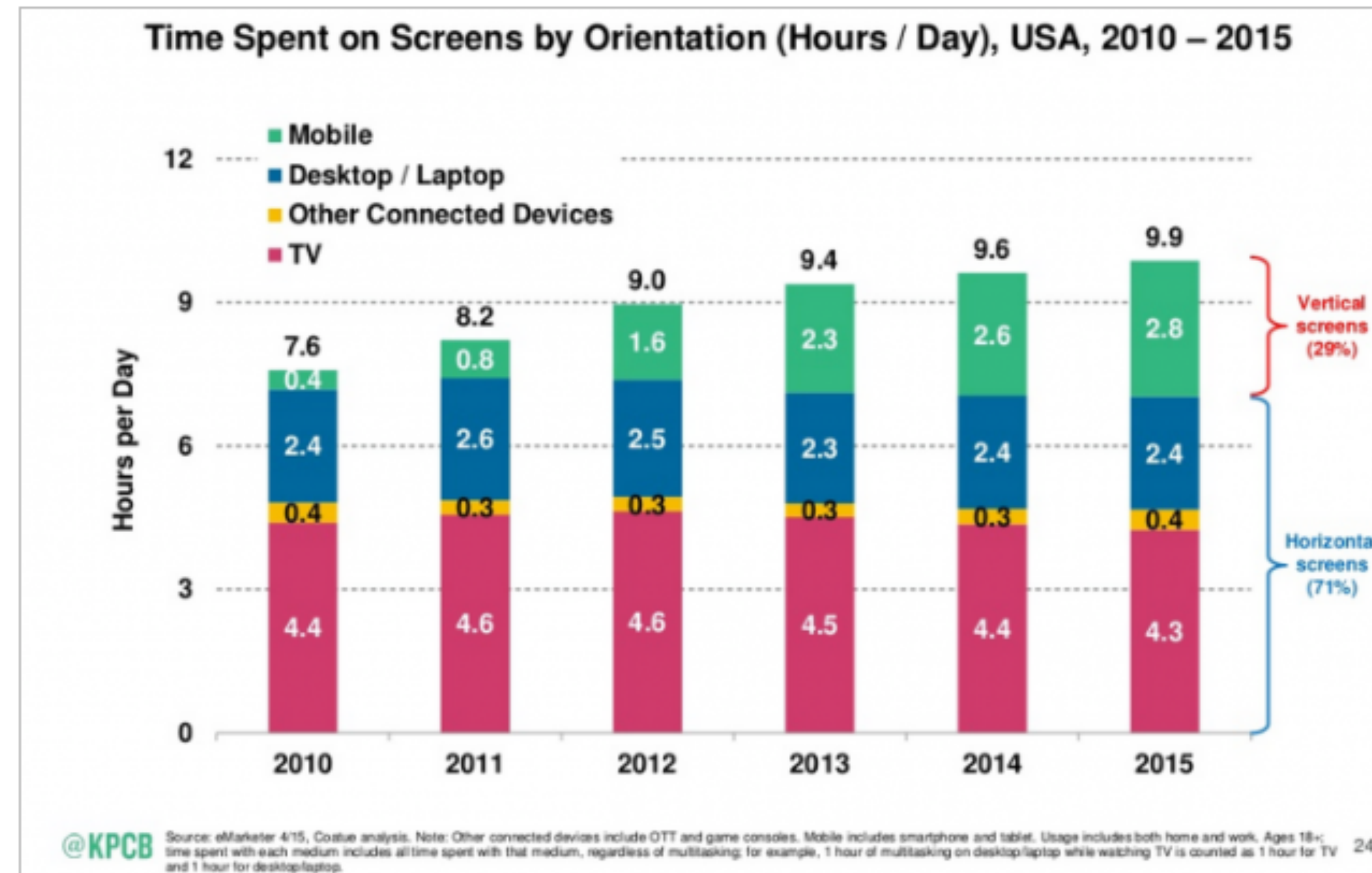
70,3% der Benutzer verwenden Windows als Betriebssystem, 8,2% MAC OS X und 2,0% Linux. Das Mobile Betriebssystem iOS von Apple wird von 12,2% der Benutzer verwendet und Android von 6,3%. Insgesamt erfolgen also 18,5% der Internet-Zugriffe über ein mobiles Gerät.

## Entwicklung



Windows ist das klar am meisten verwendete Betriebssystem. Allerdings nahm der Anteil aller anderen Betriebssysteme im Vergleich über das letzte Jahr hinweg zu.

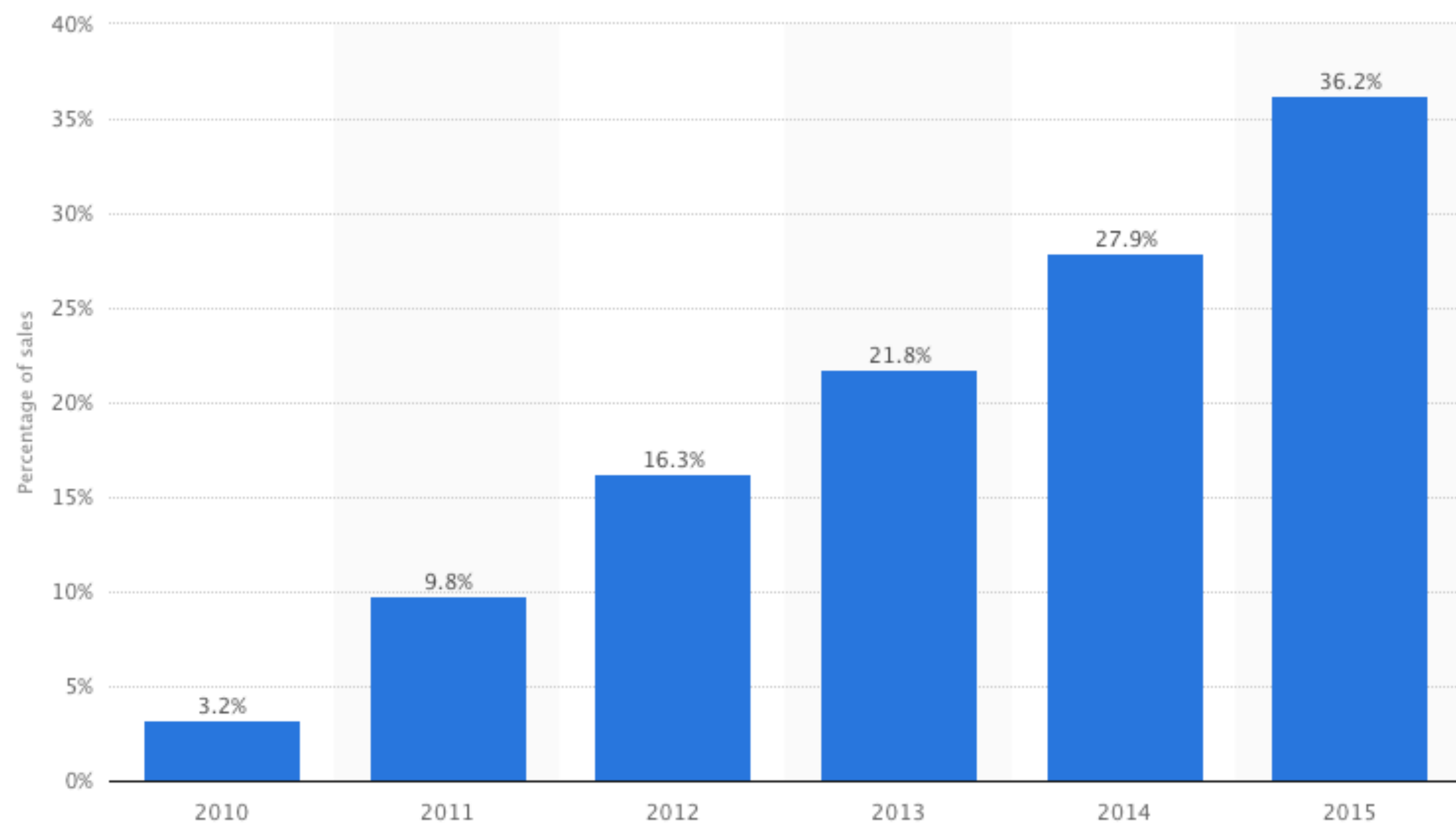






## Share of mobile online sales on Black Friday from 2010 to 2015

This statistic gives information on the percentage of mobile online sales on Black Friday from 2010 to 2015. On Black Friday 2015, 36.16 percent of online sales were generated via mobile devices, up from 27.91 percent in the previous year.



© Statista 2015

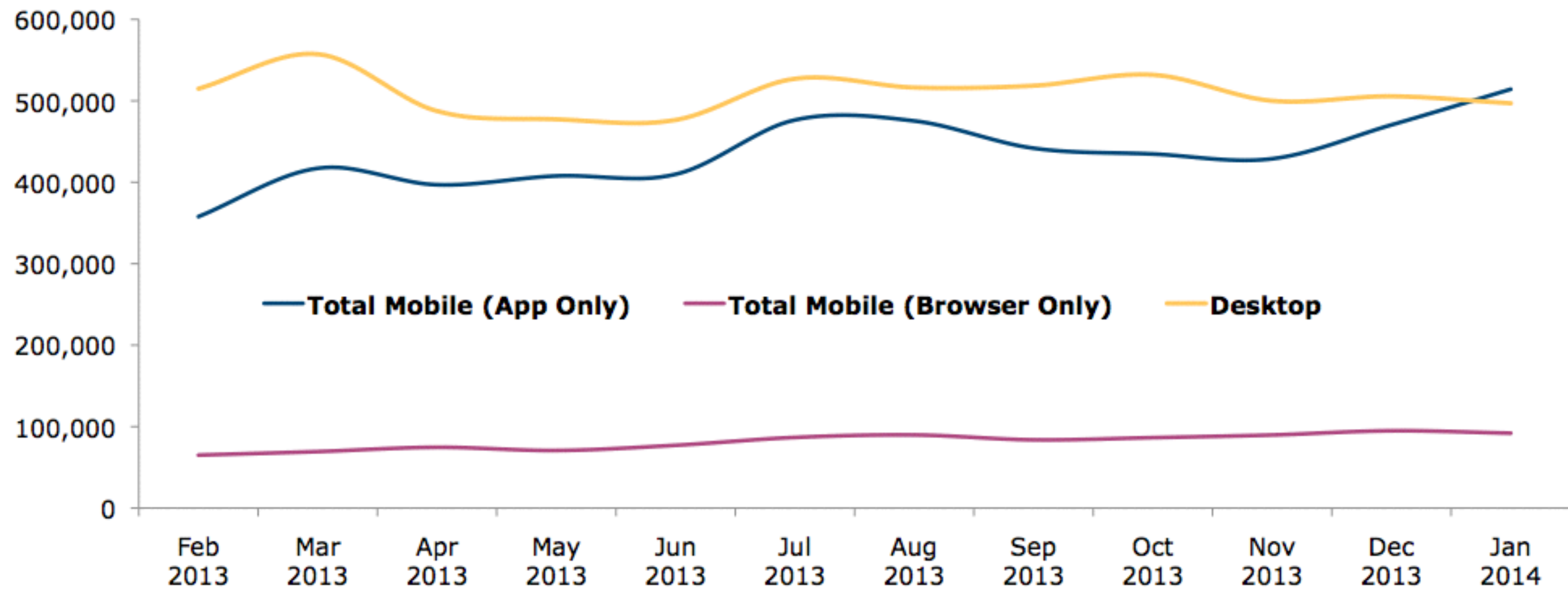
[Show further information](#)

[Show sources information](#)

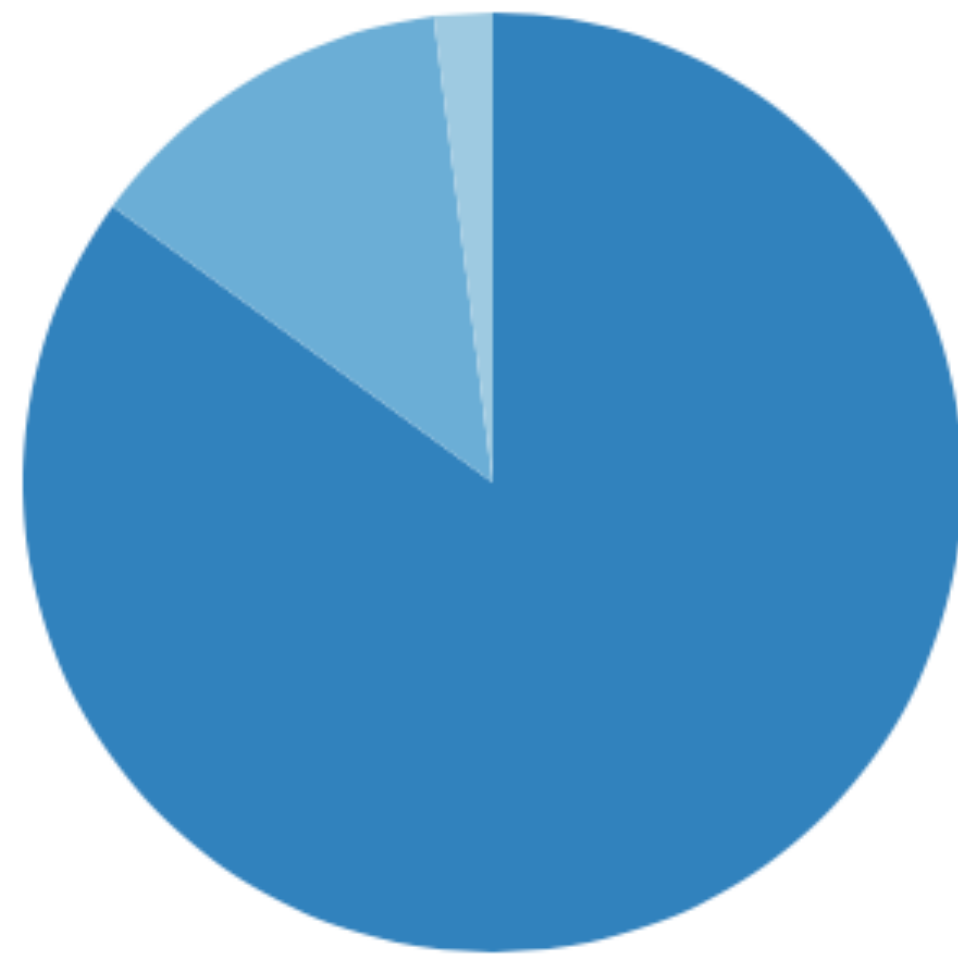
# Time Spent With the Internet, by Device, in the US

total minutes (mm) per month

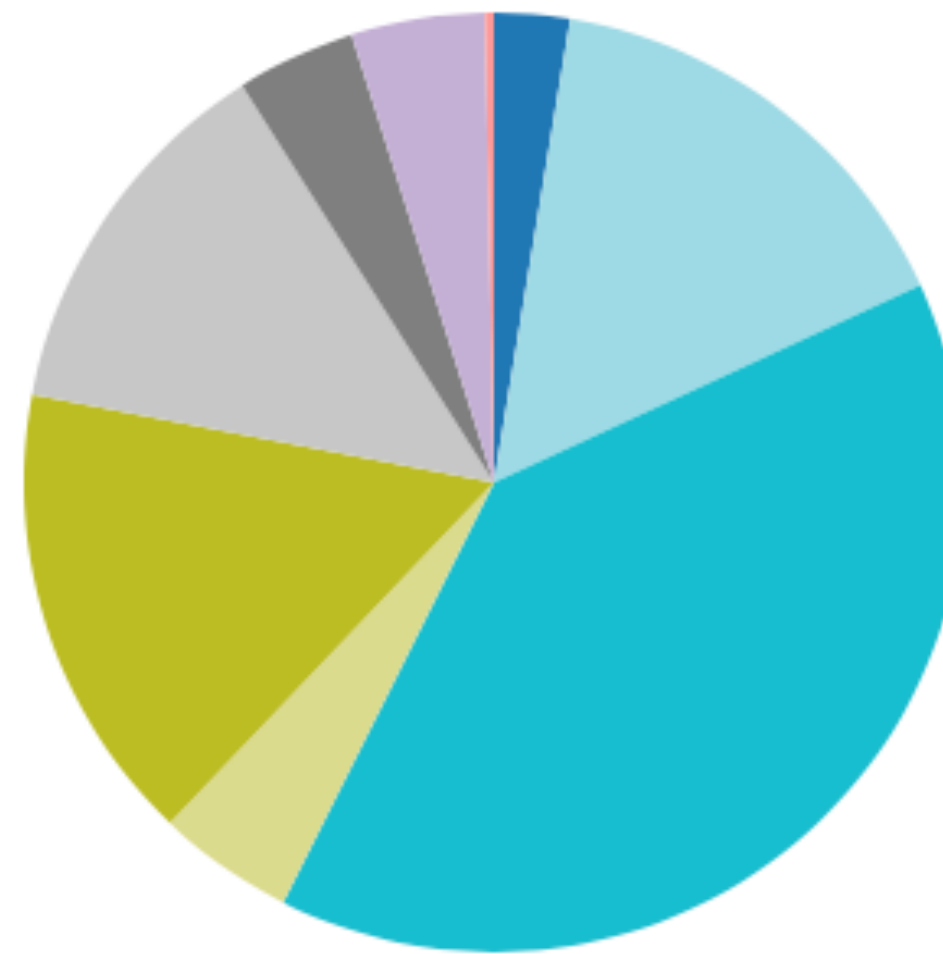
**February 2013 - January 2014**



## COMPARISON WITH IOS

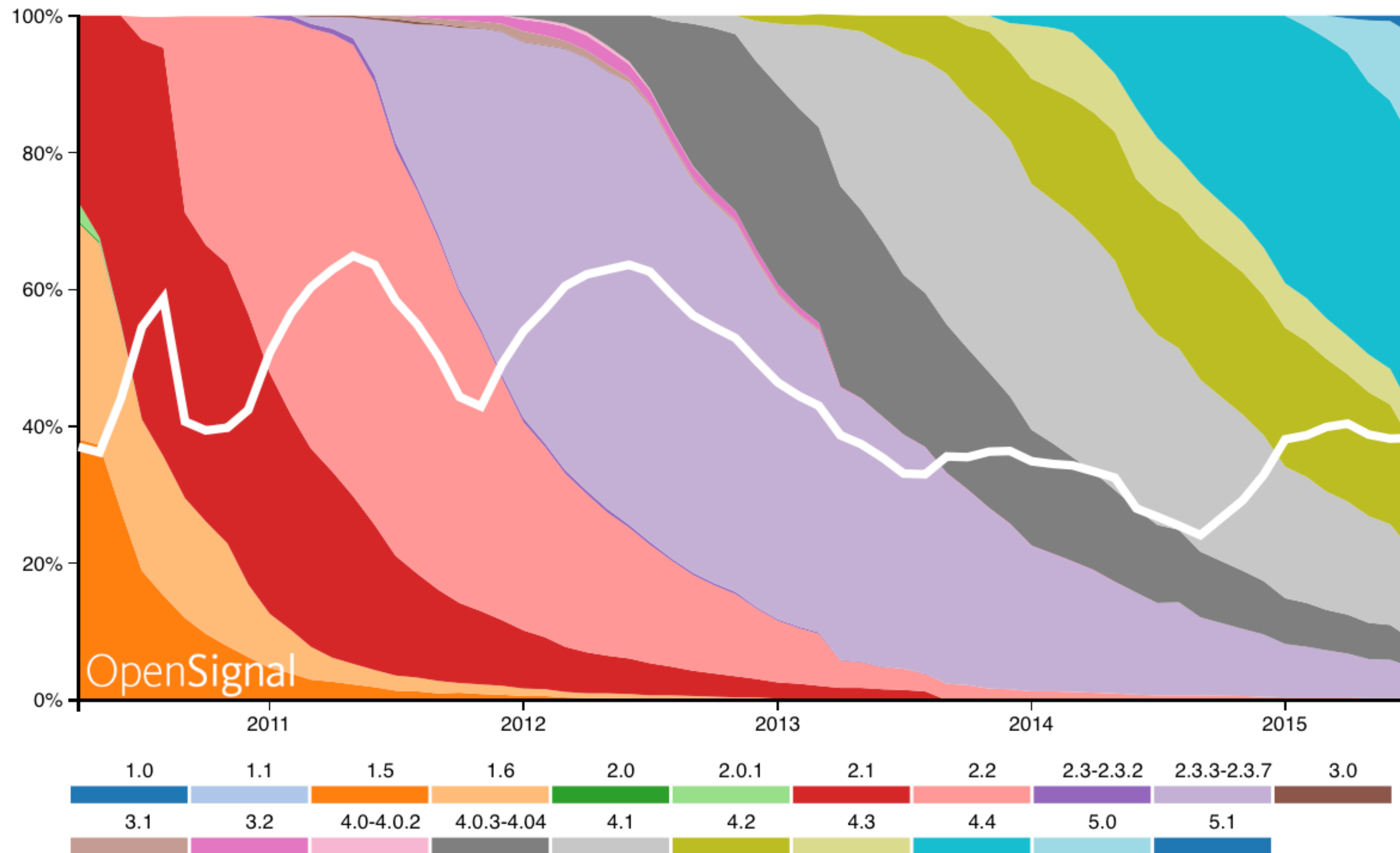


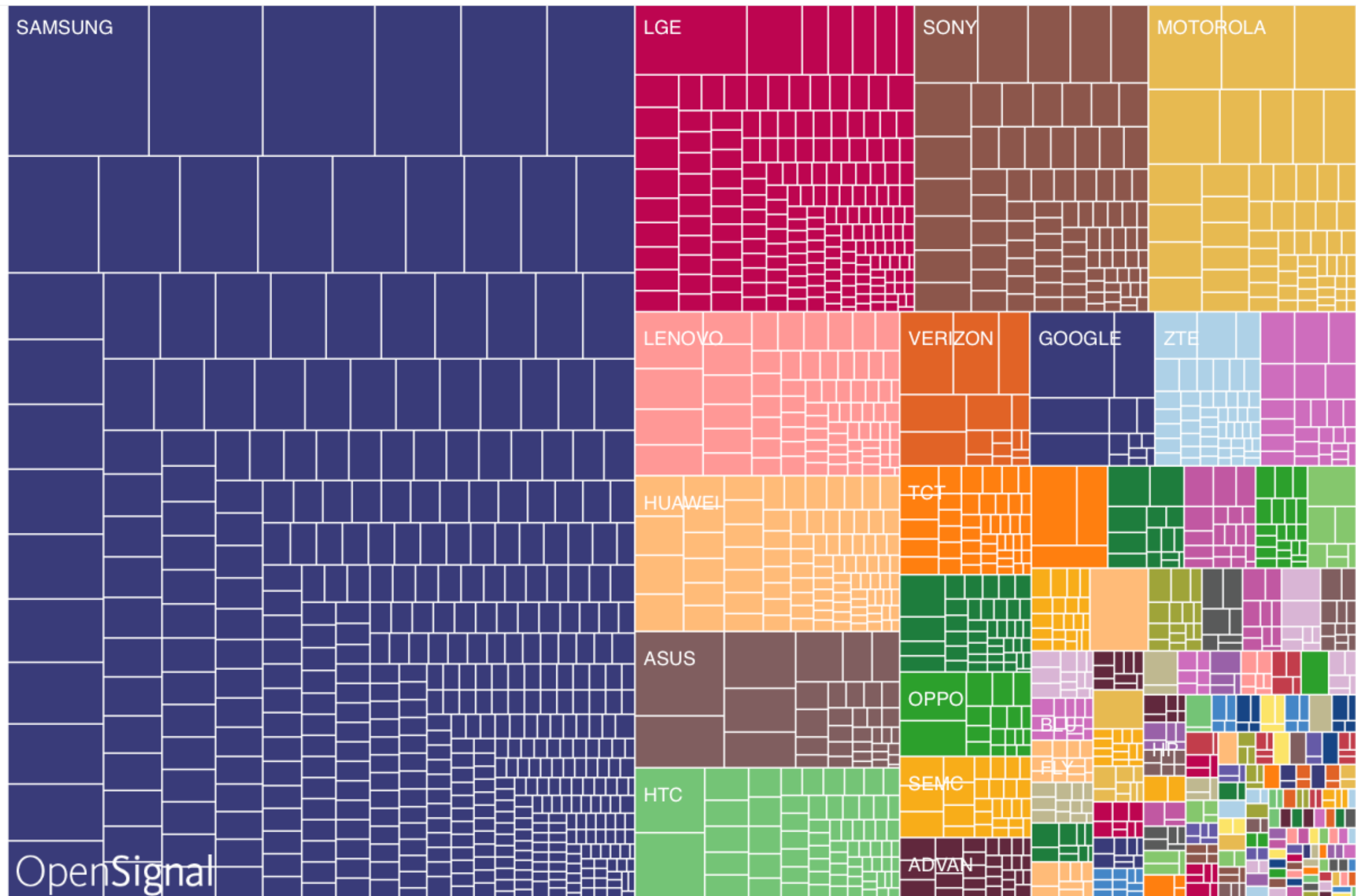
iOS 8 (85%)  
iOS 7 (13%)  
Earlier Version (2%)



5.1 (Lollipop) (2.6%)  
5.0 (Lollipop) (15.5%)  
4.4 (Kit Kat) (39.3%)  
4.3 (Jelly Bean) (4.7%)  
4.2 (Jelly Bean) (15.9%)  
4.1 (Jelly Bean) (13%)  
4.0.3 - 4.0.4 (ICS) (4.1%)  
2.3.3-2.3.7 (Gingerbread) (4.6%)  
2.2 (Froyo) (0.3%)

# ANDROID OPERATING SYSTEM FRAGMENTATION







em and %

The em is simply the font size. In an element with a 2in font, 1em thus means 2in. Expressing sizes, such as margins and paddings, in em means they are related to the font size, and if the user has a big font (e.g., on a big screen) or a small font (e.g., on a handheld device), the sizes will be in proportion. Declarations such as 'text-indent: 1.5em' and 'margin: 1em' are extremely common in CSS.

# Media Queries

# Media Queries

```
media_query_list: <media_query> [, <media_query> ]*
media_query: [[only | not]? <media_type> [ and <expression> ]*]
             | <expression> [ and <expression> ]*
expression: ( <media_feature> [: <value>]? )
media_type: all | aural | braille | handheld | print |
            projection | screen | tty | tv | embossed
media_feature: width | min-width | max-width
              | height | min-height | max-height
              | device-width | min-device-width | max-device-width
              | device-height | min-device-height | max-device-height
              | aspect-ratio | min-aspect-ratio | max-aspect-ratio
              | device-aspect-ratio | min-device-aspect-ratio | max-device-aspect-ratio
              | color | min-color | max-color
              | color-index | min-color-index | max-color-index
              | monochrome | min-monochrome | max-monochrome
              | resolution | min-resolution | max-resolution
              | scan | grid
```

# Responsive Design

$l / \text{parent font size (px)} \times \text{required pixels} = \text{em}$



# JavaScript Facts / History

# Polyfills

# HTML 5 -> JavaEE Integration

# CORS

- Cross-Origin Resource Sharing
- Browser and Server Solution
- Required For Cross-Domain Communication
- Access-Control-Allow-Origin, Access-Control-Allow-Methods

React, Angular 2,  
WebComponents and  
Co.

# Adam Bien's Workshops

Munich (MUC) Airport Workshops, 13th, Winter Edition:

Java EE 7 Bootstrap, December 12th, 2016

also available as: [Streaming / Download Edition]

Effective Java EE 7, December 13th, 2016

also available as: [Streaming / Download Edition]

Java EE 7 Architectures, December 14th, 2016

Microservices With Java EE 7 and Java 8, December 15th, 2016

also available as: [Streaming / Download Edition]

Java EE 7 Testing, Deployment, Automation and Code Quality,  
December 16th, 2016

also available as: [Streaming / Download Edition]

Dedicated Virtual Workshops [on demand]

NEW:

Building HTML 5 Applications With React, October 24th, 2016

NEW:

Building HTML 5 Applications With Angular 2, October 25th,  
2016

[adam-bien.com](http://adam-bien.com)



# References

Input types: <https://html.spec.whatwg.org/multipage/forms.html#states-of-the-type-attribute>

HTML 5: <http://www.w3.org/TR/html/>

Web storage: <http://dev.w3.org/html5/webstorage/>

Geo Location: <http://dev.w3.org/geo/api/spec-source.html>

WebSockets: <http://dev.w3.org/html5/websockets/>

Microdata: <http://www.w3.org/TR/microdata/>

Offline apps: <http://www.w3.org/TR/2011/WD-html5-20110525/offline.html>

Canvas: <http://www.w3.org/TR/2dcontext/>

DOM 3 Spec: <http://www.w3.org/TR/DOM-Level-3-Core/>

# Thank You!

[blog.adam-bien.com](http://blog.adam-bien.com)  
[twitter.com/AdamBien](https://twitter.com/AdamBien)