

HTML 5

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I'm working as Java EE/SE developer, consultant,
sometimes author, speaker and trainer with
Java since 1995...

...and still really enjoying it!

Java Programming Language rocks!

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Real World Java EE Night Hacks

Dissecting the Business Tier

[Iteration One]



X-RAY

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Foreword by James Gosling



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REAL WORLD

JAVA EE PATTERNS

RETHINKING BEST PRACTICES

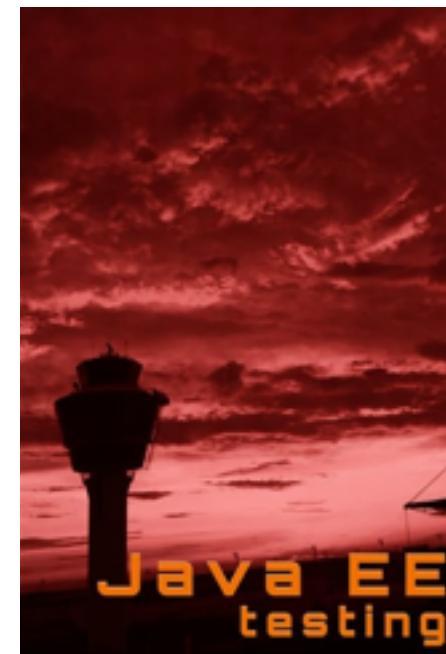
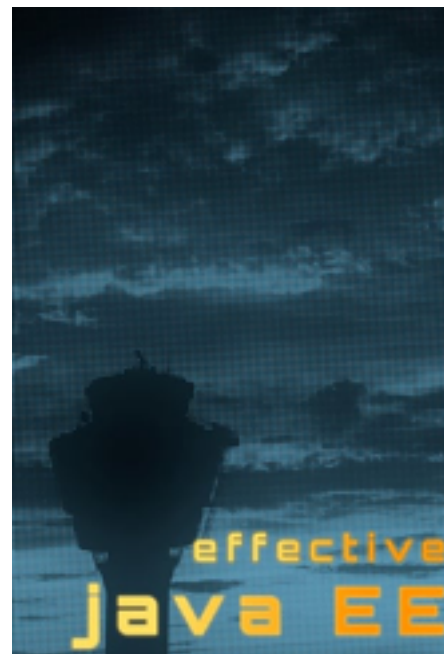
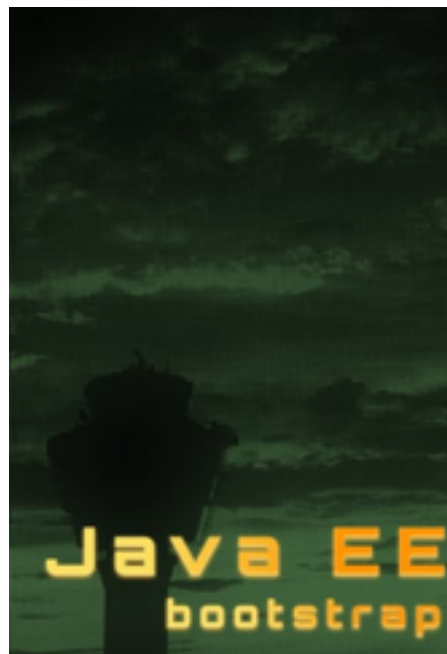


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realworldpatterns.com



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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 ()
- inline-block
- none

box model

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

position

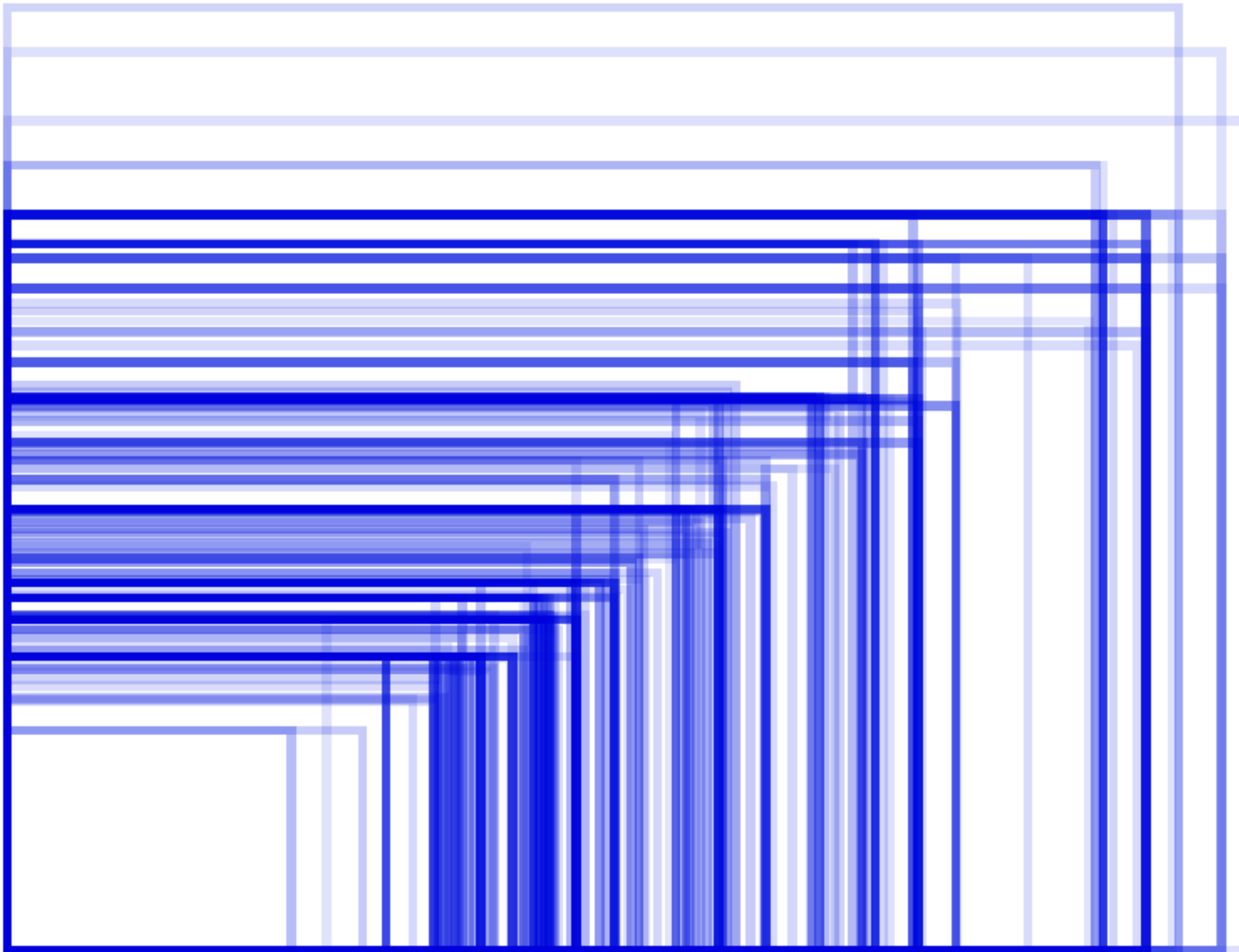
- static (default, not positioned)
- fixed (stays at the same place)
- absolute (fixed and relative to the nearest positioned ancestor)
- relative (top, left, right, bottom)

float

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

CSS Surviving With BEM

The Gadget Trouble



Distinct Android devices seen this year

Distinct Android devices seen last year

Devices surveyed for this report.

Samsung's share of those devices.

Android versions still in use

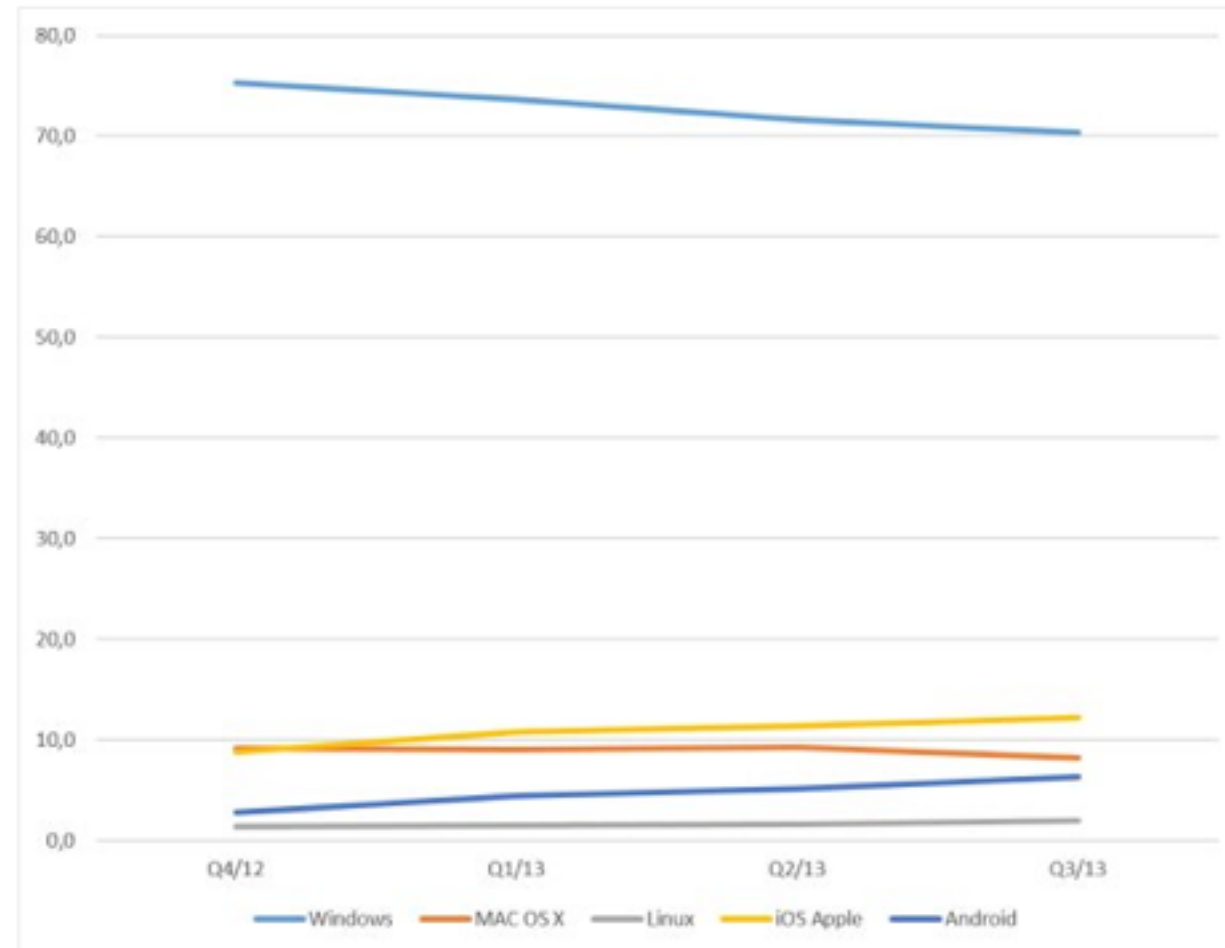
Android users on Jelly Bean

Betriebssystem

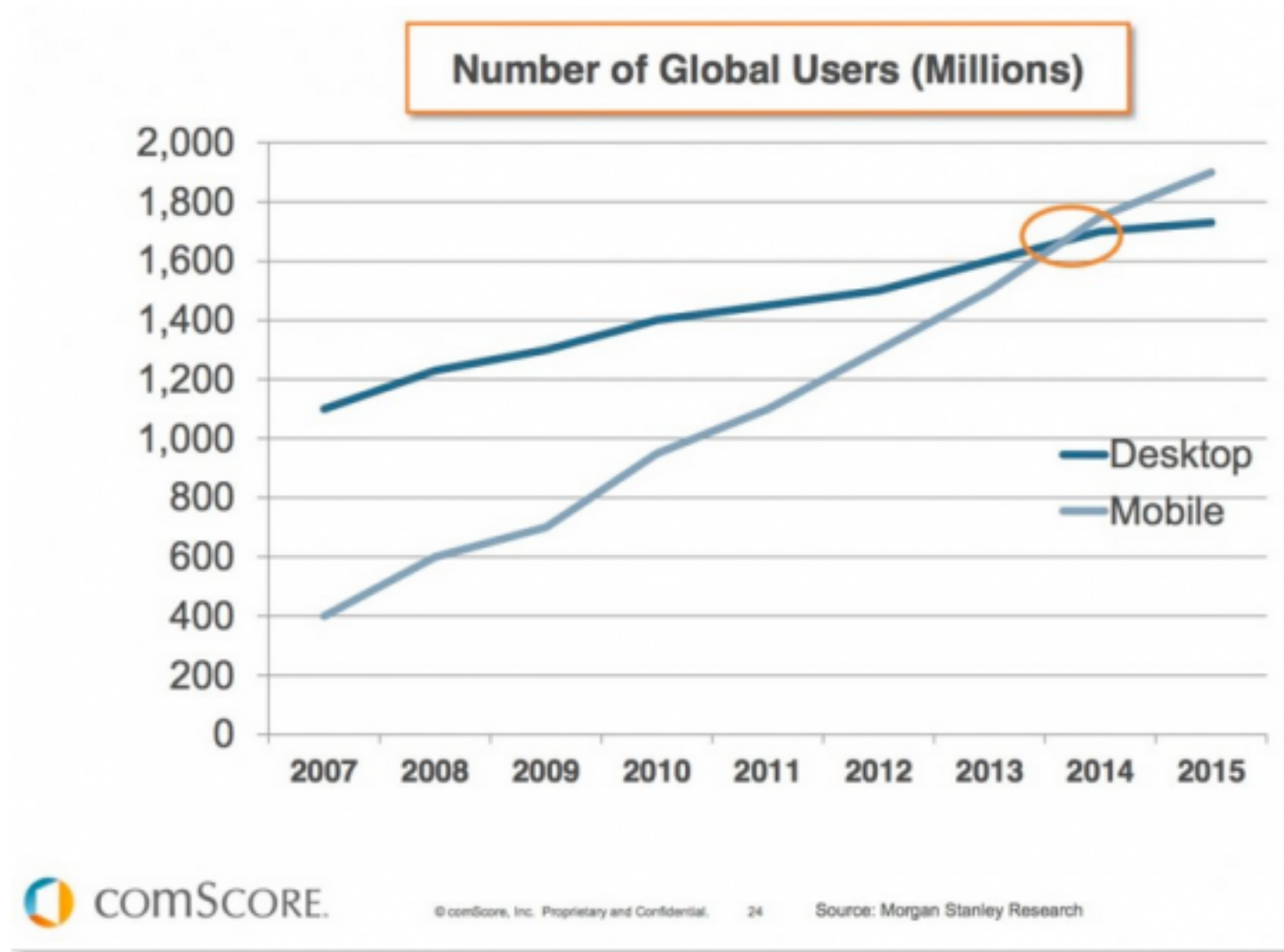
3. Quartal 2013

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

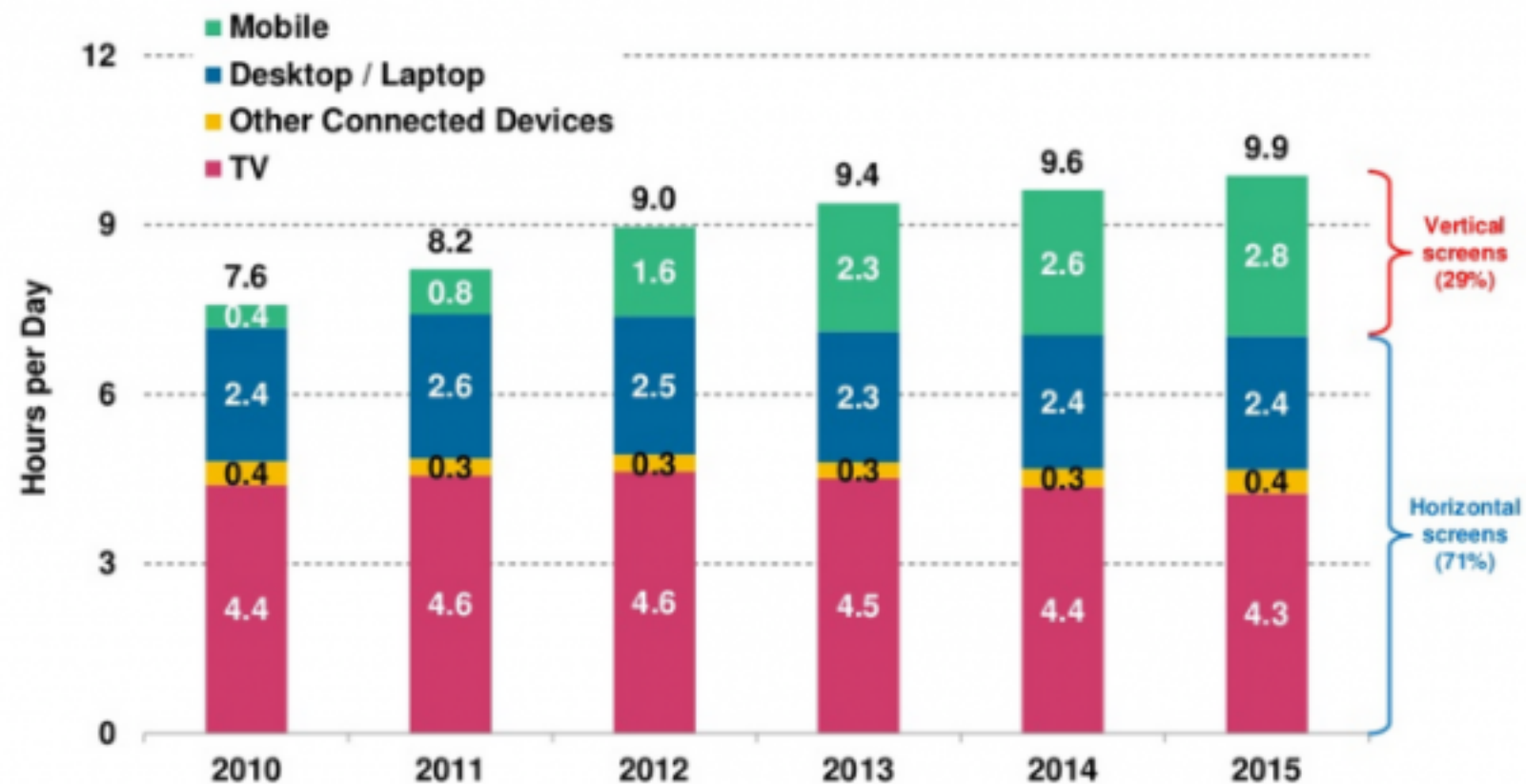


Windows ist das klar am meisten verwendete Betriebssystem. Allerdings nahm der Anteil aller anderen Betriebssysteme im Vergleich über das letzte Jahr hinweg zu.



<http://www.smartinsights.com/mobile-marketing/mobile-marketing-analytics/mobile-marketing-statistics/>

Time Spent on Screens by Orientation (Hours / Day), USA, 2010 – 2015



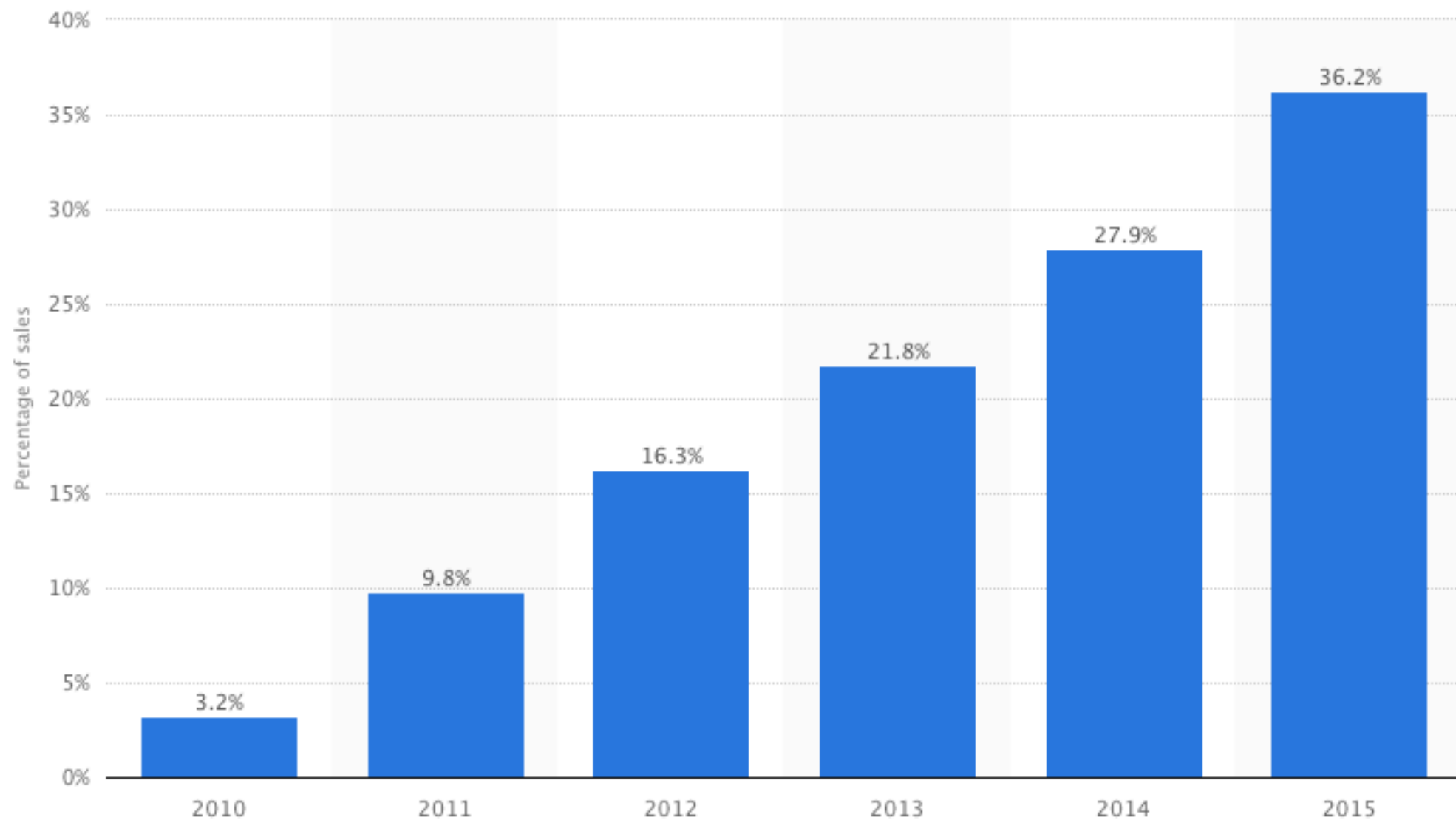
@KPCB

Source: eMarketer 4/15, Costius analysis. Note: Other connected devices include OTT and game consoles. Mobile includes smartphone and tablet. Usage includes both home and work. Ages 18+; time spent with each medium includes all time spent with that medium, regardless of multitasking; for example, 1 hour of multitasking on desktop/laptop while watching TV is counted as 1 hour for TV and 1 hour for desktop/laptop.

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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.



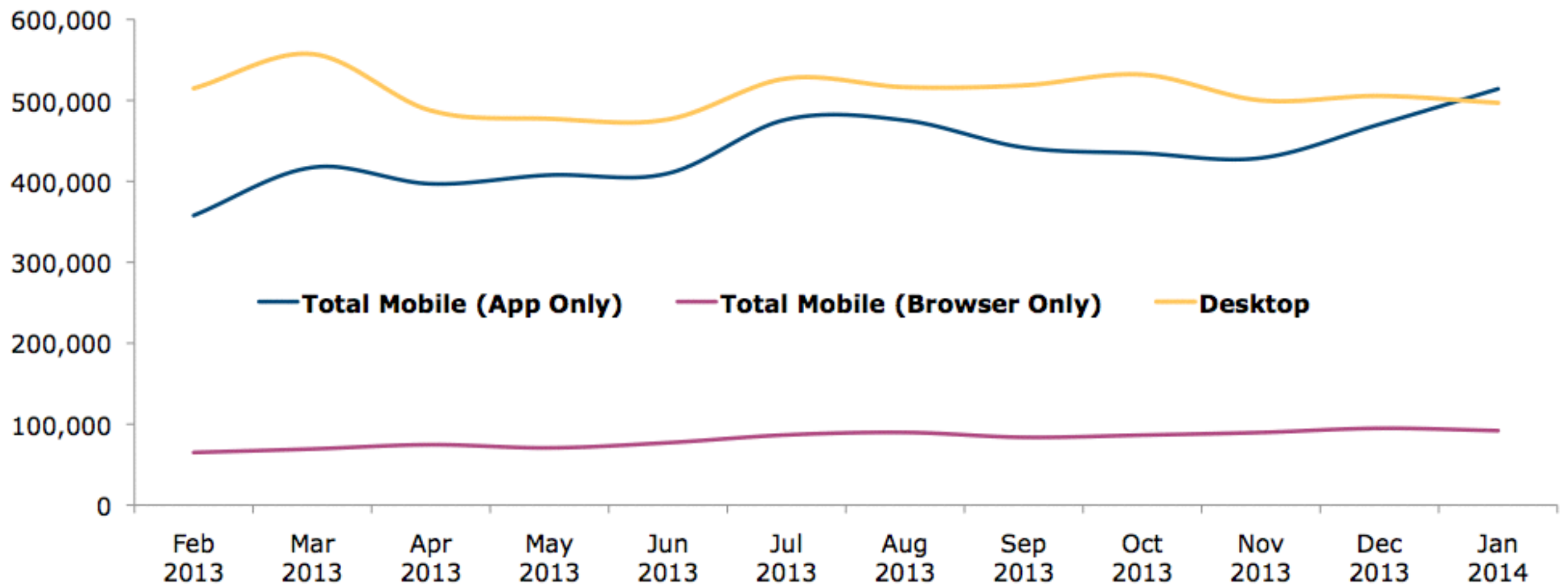
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Time Spent With the Internet, by Device, in the US

total minutes (mm) per month
February 2013 - January 2014



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

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

Progressive Enhancement

JavaScript or Java?

JavaScript Basics

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

Tooling Testing and Productivity

Static Site Generators

Cross Platform Frameworks

- phonegap
- titanium appcelerator
- codenameone
- javafxports.org

Templating Strategies

- Serverside
- Clientside
- Hybrid

Communication Styles

- Pull
- Push
- Quasi Push / Comet

Architectures for task oriented and problem solving applications

- Data binding with rich and anemic domain models
- Input validation strategies

Data Binding

Structuring JavaScript Applications

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/>

Adam Bien's Workshops

Munich (MUC) Airport Workshops, 11th, Spring Edition:

Java EE 7 Bootstrap, Monday, April 4th, 2016

also available as: [Streaming / Download Edition]

Effective Java EE 7, Tuesday, April 5th, 2016

also available as: [Streaming / Download Edition]

Java EE 7 Architectures, Wednesday, April 6th, 2016

Dedicated Virtual Workshops [on demand]

Collateral materials from previous editions.

Special Event: Microservices With Java EE 7 and Java 8, January 25th, 2016

Special Event: Continuous Java EE 7 Testing, Deployment and Code Quality, January 26th, 2016

also available as: [Streaming / Download Edition]

Thank You!

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