

January 5th, 2010

The lines between computers, phones, browsers and operating systems are blurring. Nowhere is this more apparent than in the growth of the Smartphone market and the rapid rise of mobile consumption of the 'real' web – not the browsing of specialized, simplified sites watered-down for yesterday's mobile phones, but the consumption of the mainstream Internet, on mobile computing platforms that are increasingly going toe-to-toe with our desktop PCs.

Every month Quantcast directly measures more than 200 billion requests for Internet content. A growing portion of these requests originate from networked mobile devices, allowing us to explore their rapid emergence and understand the relative share of the various vendors, models and software platforms used around the world.

This report focuses on how new generations of mobile computing platforms are complementing our traditional deskbound devices. Specifically, we're not focusing on specialized, mobile websites, or even web service based applications for specific mobile platforms, but rather the Internet at large – the same sites that you visit every day from your home and office.

An initial examination of the shift in the share of web content served to smartphone platforms highlights the rapid and accelerating rise of mobile web consumption. The figure below outlines the beginning of this transformation over the past three years.

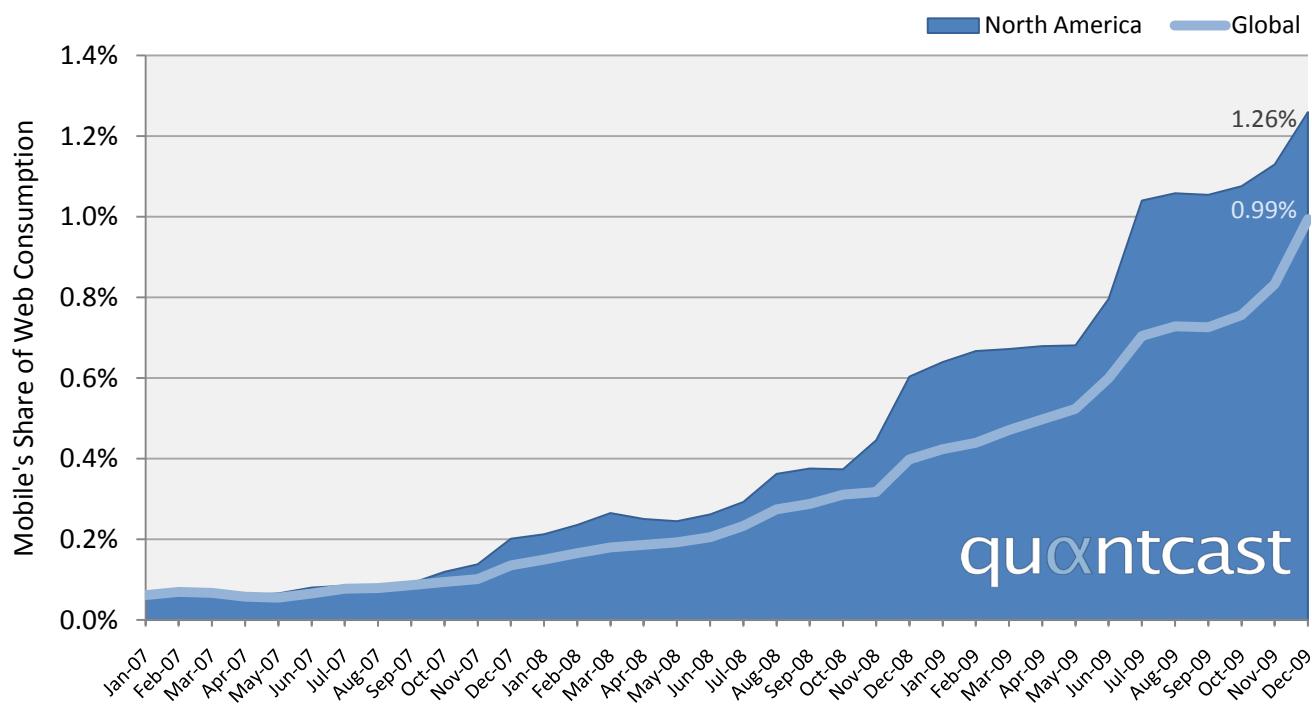


Figure 1: Quantcast's Mobile Pageview Observations

Highlights

- North American mobile web share up 110% in 2009 (Dec '09 vs. Dec '08)
- Global mobile web consumption share up 148% in 2009
- Apple continues to dominate, though market share has declined as increased competition emerges
- Android supports over 12% of North American mobile web pageviews, overtaking RIM's Blackberry
- Motorola's Android based Droid is the most impressive market entry since the iPhone and is largely responsible for a 10x improvement in Motorola's North American mobile web share
- Apple, Nintendo, Motorola and HTC saw the largest 'stocking stuffer' bounce this past holiday season, and
- Pre-launch web visibility points to a wide variety of new devices from Motorola, HTC, Blackberry and others in 2010

Background

Quantcast provides a free audience measurement service that is used extensively worldwide. The [Quantified Publisher program](#) uses a measurement pixel embedded in the HTML of a web page that causes visitors' web browsers to request content from a Quantcast measurement server. By the end of 2009, in excess of 200 billion of these measurement pixels were being served every month by Quantcast, with a growing proportion originating from mobile devices.

Each measurement pixel record captures standard HTTP headers containing information relating to the Internet browser's [User Agent](#). To compile this report, we looked at the distribution of User Agent entries throughout 2007, 2008 and 2009 to explore the trends in mobile web access and the relative market share of the major vendors and their models as well as the Operating Systems and Web Browser software in use.

Measuring Market Share

Quantcast launched in September 2006 and has experienced rapid publisher adoption. Today millions of web destinations, including over half of the United States's top ad-supported websites, use Quantcast. As a result, the daily volume of web consumption events observed has increased from 50 million in January 2007, to over 7.5 billion per day today. The number of pixels served to mobile devices has grown at an ever higher rate.

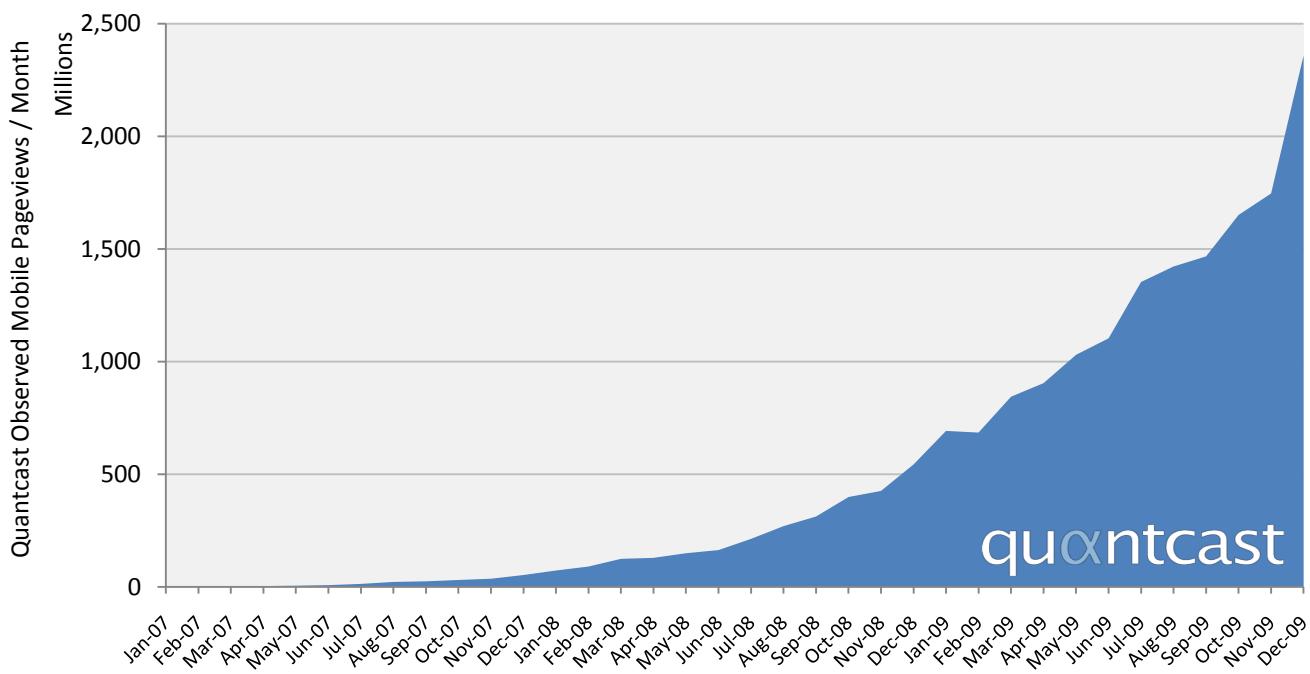


Figure 2: Quantcast's Mobile Pageview Observations

To account for the constant flow of new participating publishers, the analysis is presented in respect of the market share of pageviews served to given devices/platforms. We consider this to be the best measure of mobile web consumption as it captures the amount of web content consumed on the platform and our belief is that the devices/platforms that make it easy to consume large quantities of web content will come to dominate the market.

What's in a name? Device manufacturers often use multiple names for the same device to provide distinctive branding for particular carriers and regions. We have attempted to map these names back to a single model number, but are still some way short of what we might term 'success'. If you can help, please contact us at mobile@quantcast.com.

If you have any questions, observations or comments relating to this report, please let us know at mobile@quantcast.com.

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Global Mobile Web Usage is Accelerating

It probably won't surprise you to find out that mobile usage has been on a tear the past three years, while still only representing a small portion of overall web traffic (1.3% of all North American pageviews in December 2009), the pace of development in mobile devices, operating systems and browser software continues to push the limits of what can be achieved on the move.

Worldwide, the share of Internet pageviews originating from mobile devices increased 148% in the year to December '09

North America's mobile share of pageviews rose 110% in 2009

While different regions are at different points on the mobile web adoption curve, it's plain to see that the trend is a truly global phenomenon with accelerating share worldwide.

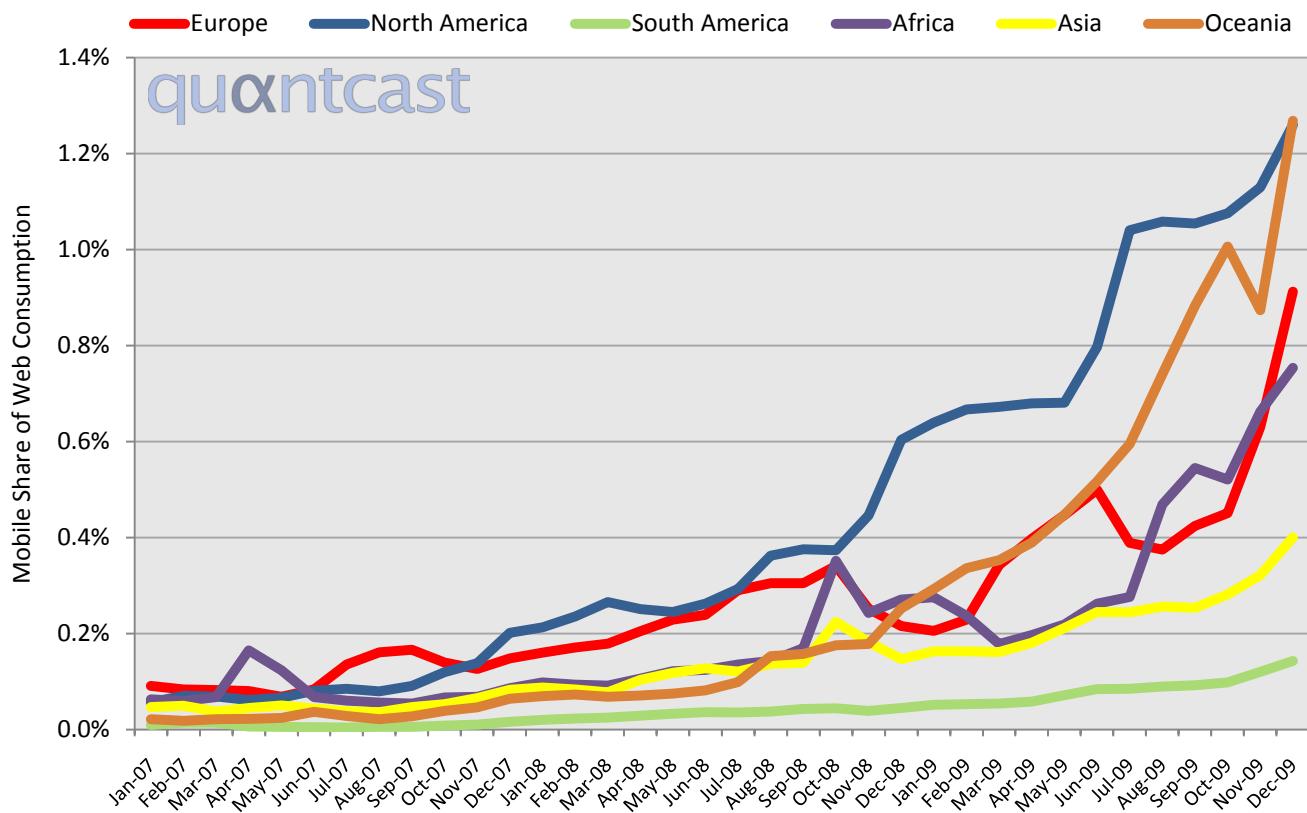


Figure 3: Mobile Share of Pageviews by Continent

Ranking the Vendors

With a market that's widely considered to grow massively over the next few years, competition among the mobile device manufacturers is fierce. The last three years have seen numerous innovations in support for mobile web consumption from phone vendors, computer manufacturers and even mobile gaming consoles have been getting in on the act.

Here we compare the respective market share, as measured by the proportion of Internet pageviews attributable to their devices, of each of the major equipment vendors. For each region assessed we highlight the vendors that have had the most market share in recent years, with all others been grouped with unidentifiable devices¹ as 'Unknown/Other'.

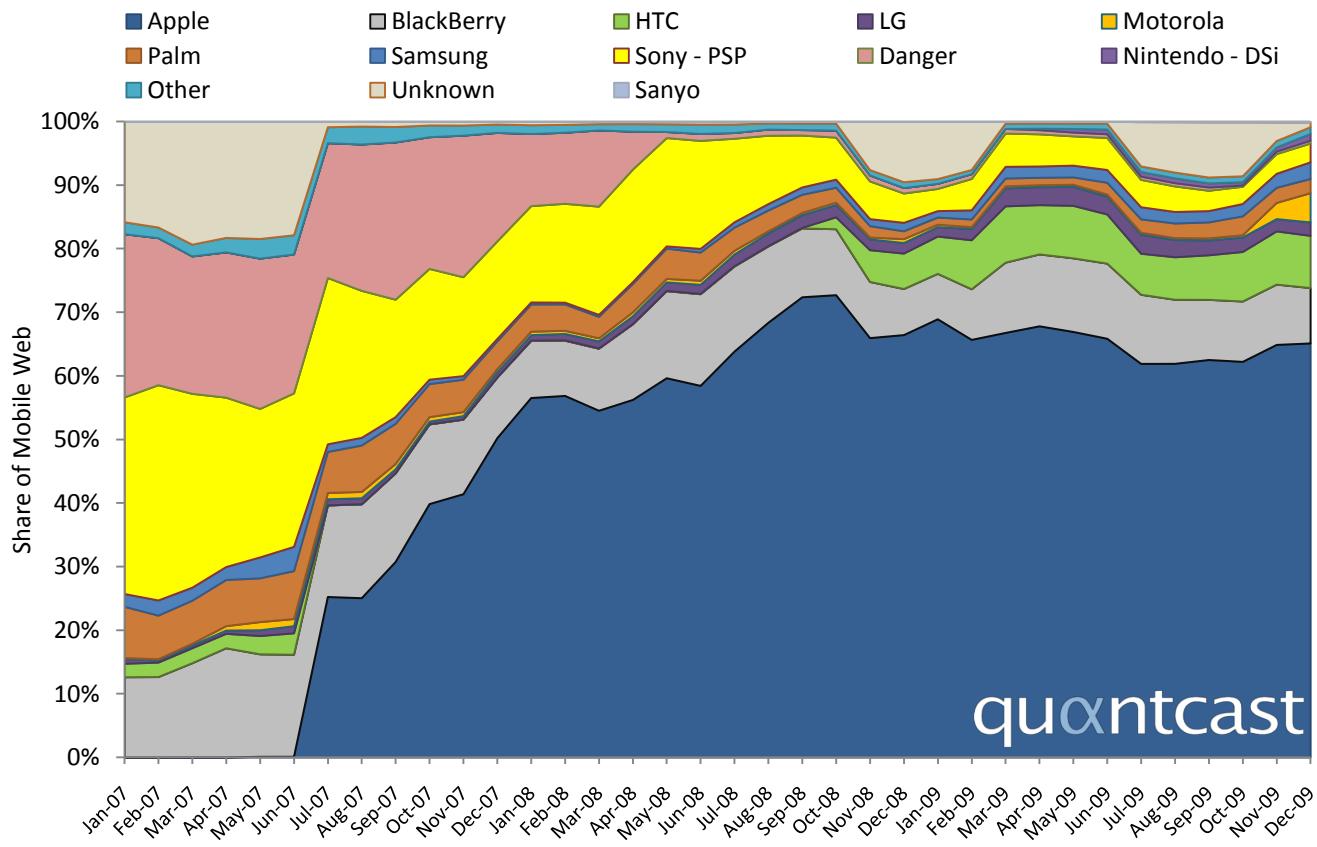


Figure 4: Vendor Share of Mobile Web (North America)

¹ The majority of devices can be identified from examination of user agents, though a subset cannot be attributed to any particular manufacturer.

A quick glance at the chart confirms the transformative impact that Apple has had on the mobile web in North America. The ease with which Apple devices enable mobile web consumption led to heavy usage and rapid market share adoption, undoubtedly spurring other vendors to up their game.

The same is true worldwide.

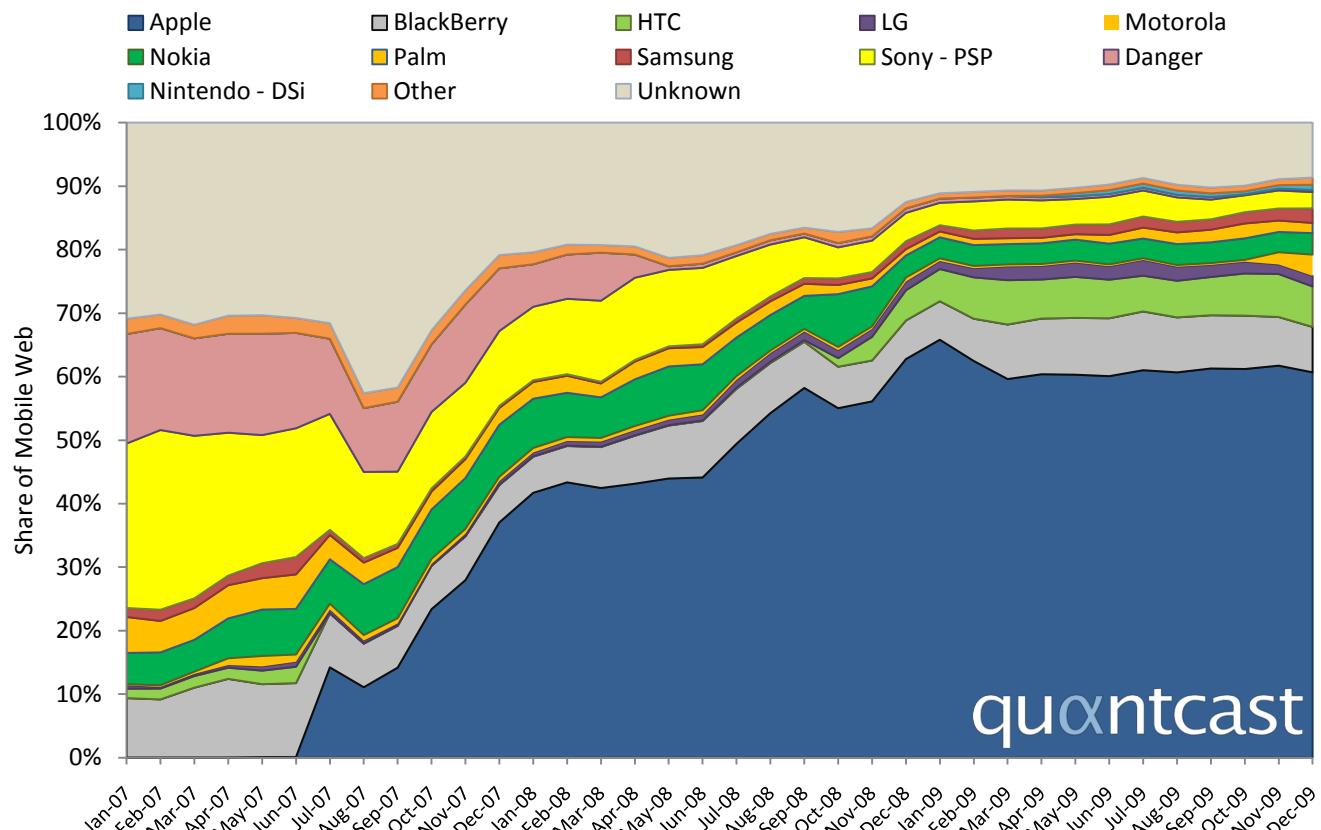


Figure 5: Vendor Share of Mobile Web (Global)

Following the iPhone's launch in the U.S. on June 29th, 2007, Apple took the top share of pageviews in July – an astounding market entry clearly demonstrating the demand for devices that make it painless to surf the web wirelessly.

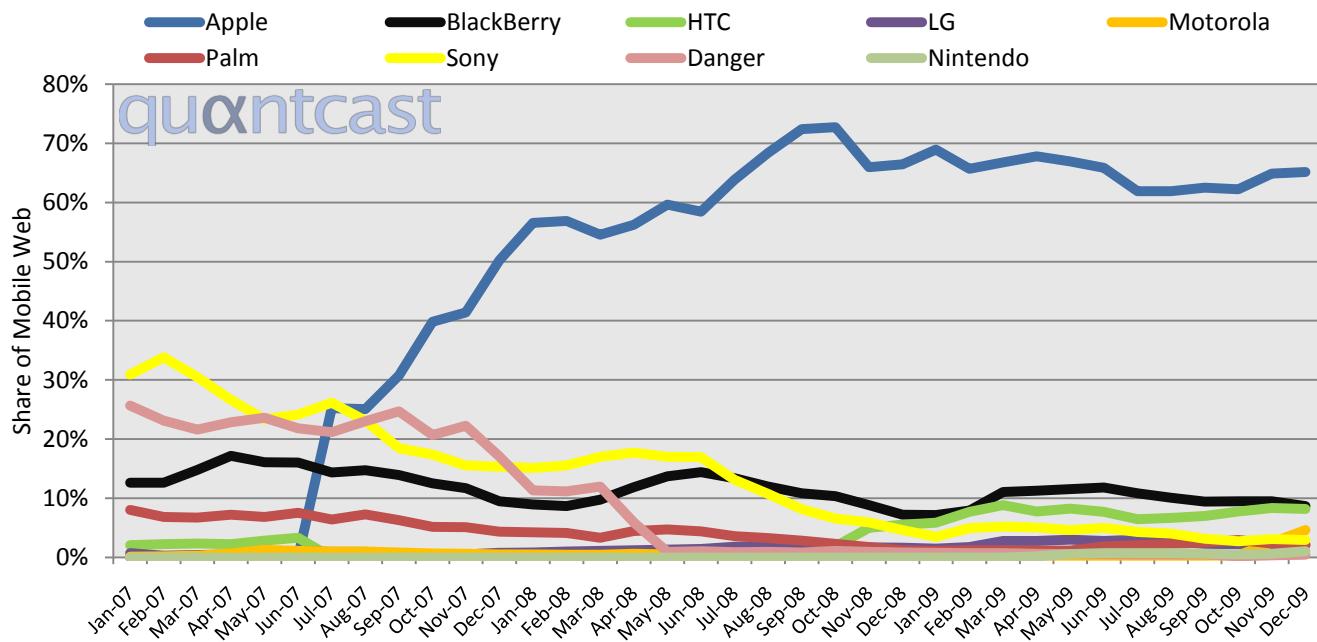


Figure 6: Vendors Head To Head Market Share (North America)

Worldwide leadership followed later that year.

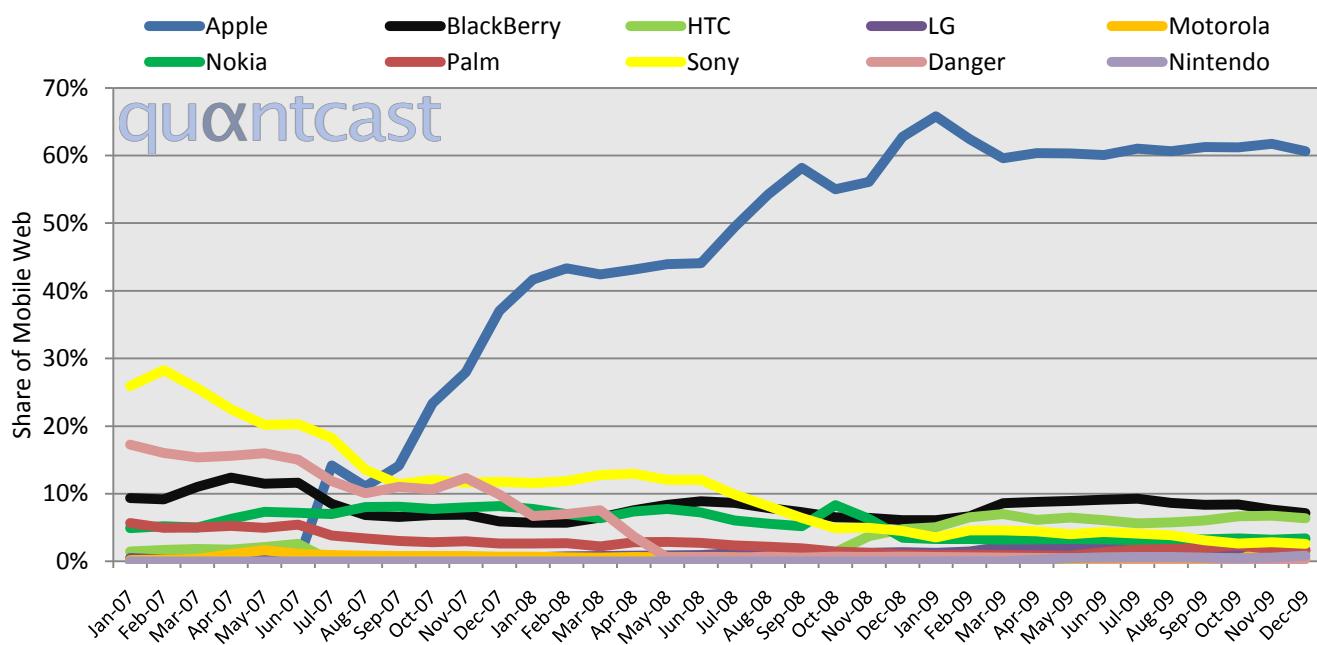


Figure 7: Vendors Head To Head Market Share (Global)

But, Apple's dominance has declined a little in both North America and globally this past year and their leadership position is not universal. Take India for example, an important market for mobile given the comparatively lower penetration of fixed line telecommunication services, while Apple has gained steadily, Nokia still commands a significant lead in share of mobile web.

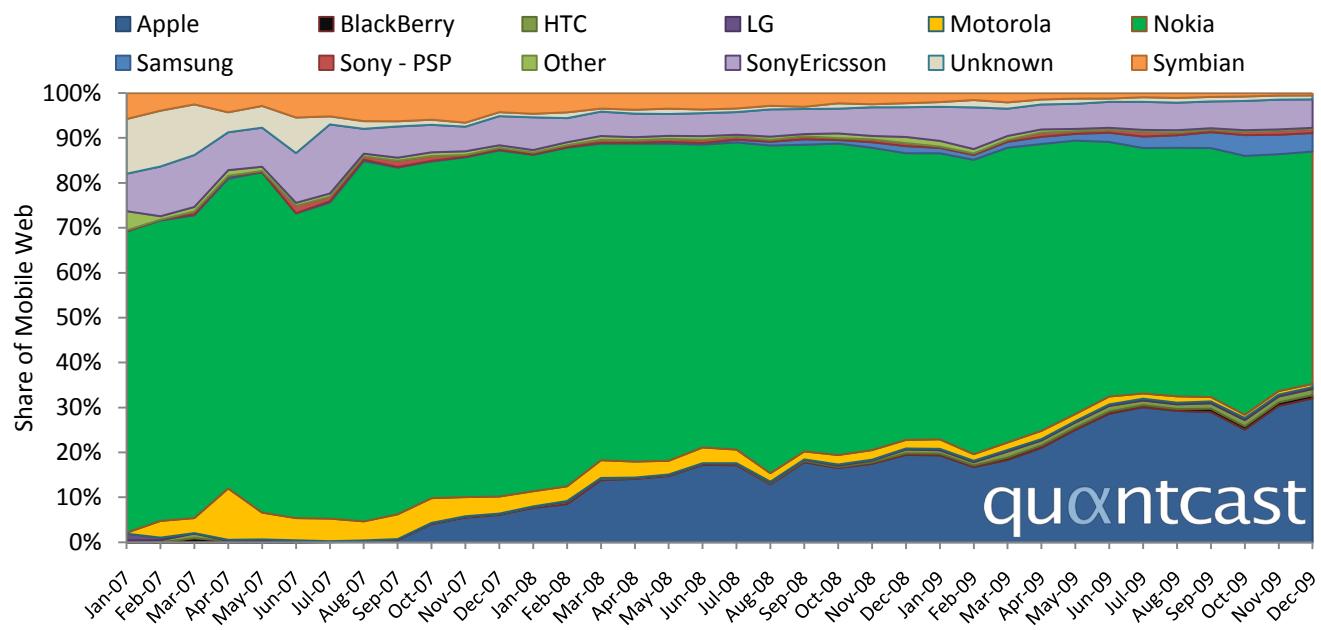


Figure 8: Vendors' Share of Mobile Web (India)

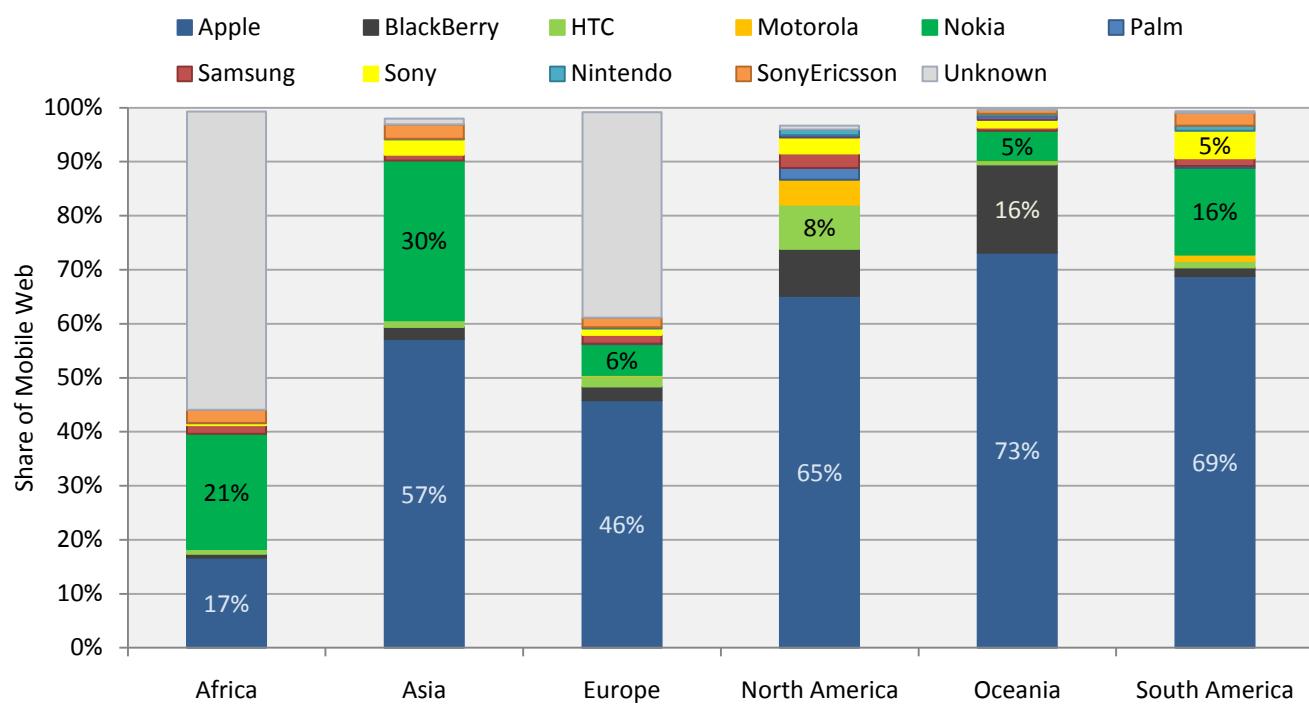


Figure 9: Vendors Share of Worldwide Mobile Web (Dec '09)

Mobile Operating Systems

Just like their desktop counterparts, mobile computing devices have operating systems that handle user interaction and the various applications that reside on the device. As they own their whole stack, it's no surprise to learn that Apple comes out on top here too.

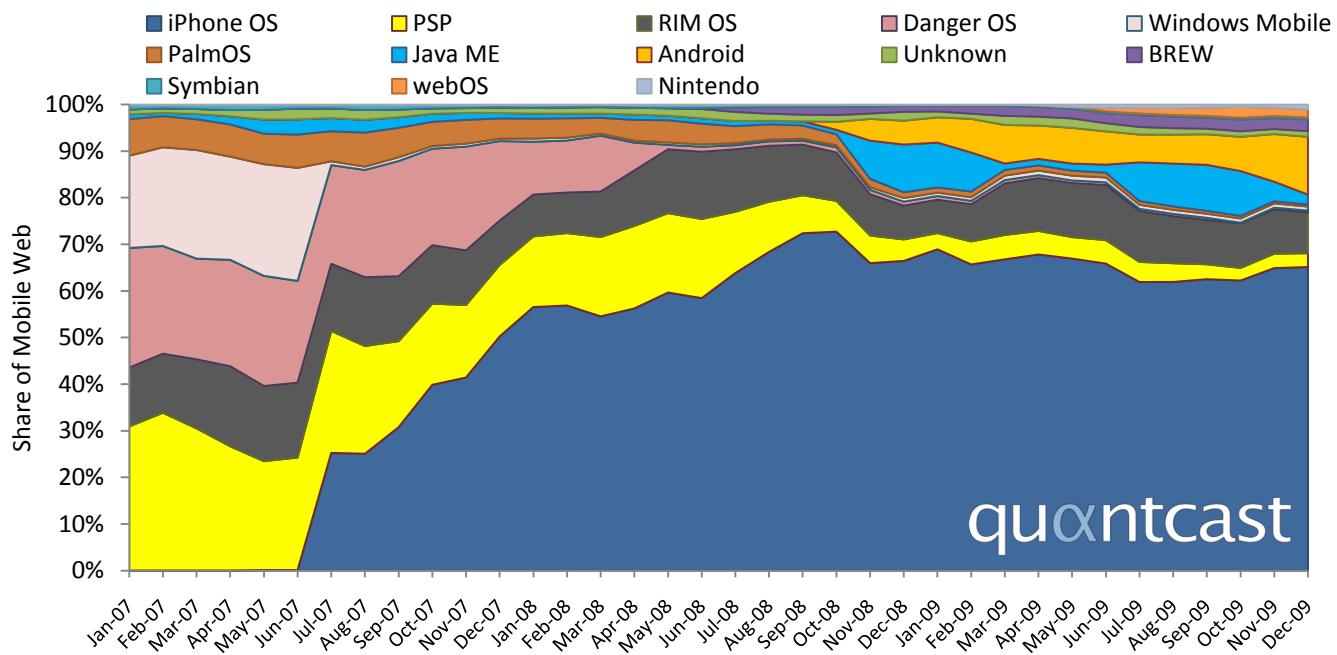


Figure 10: Operating System Share of Mobile Web (North America)

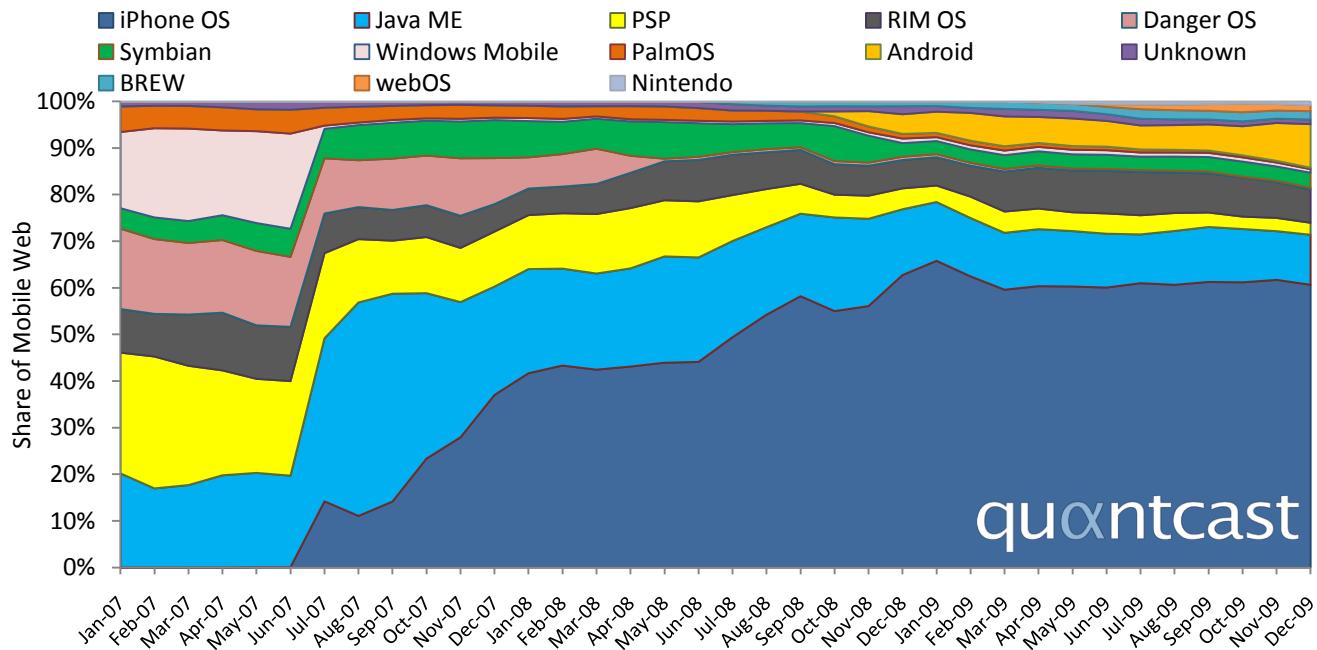


Figure 11: Operating System Share of Mobile Web (Global)

The following shows the respective share of the various operating systems for December 2009. Not all vendors are represented therefore the numbers do not sum to 100%.

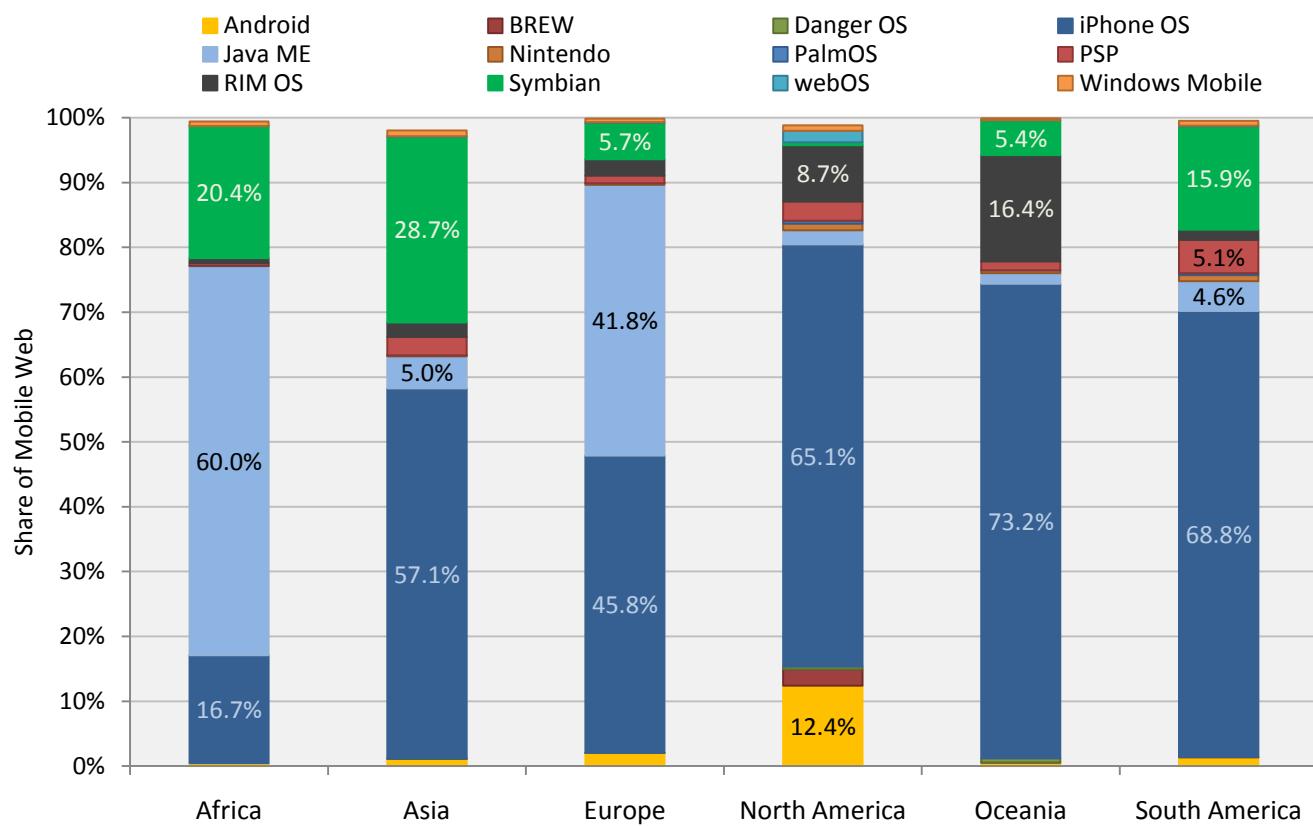


Figure 12: Operating System Share of Worldwide Mobile Web (Dec '09)

Battle of the Browsers

Browser software enables you to surf the web and as the iPhone/iPod browser, Apple's Safari leads the way.

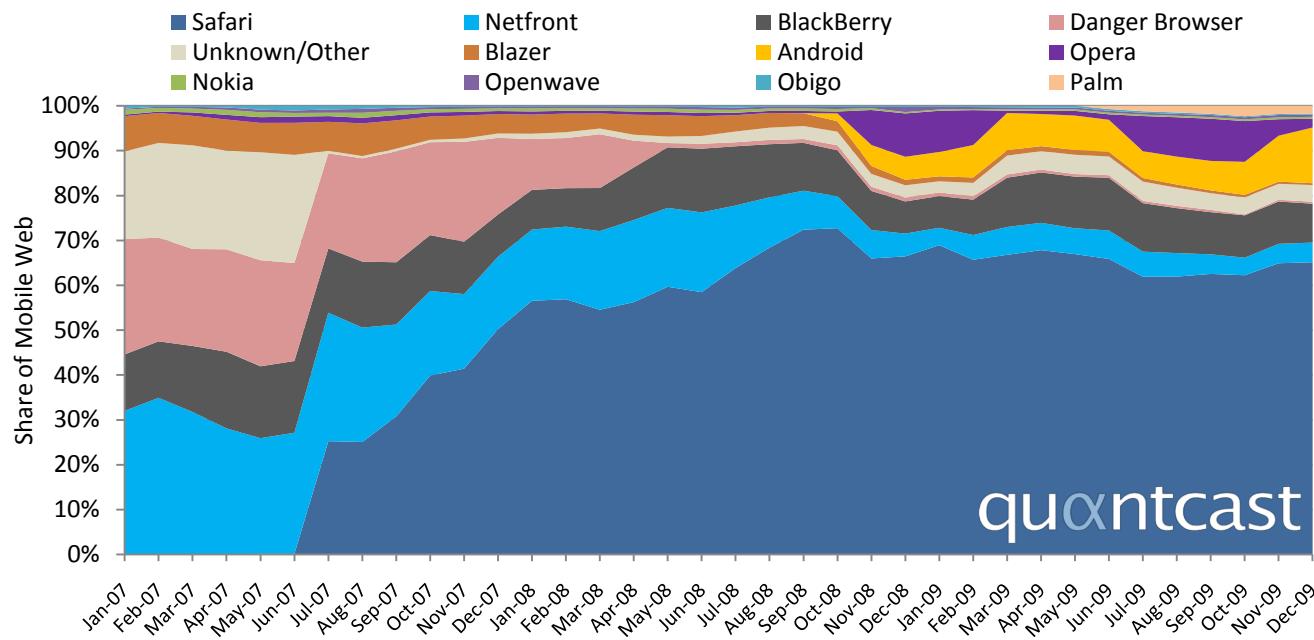


Figure 13: Browser Share of Mobile Web (North America)

Note: Opera data for individual countries can be unreliable because the browser uses a proxy service to compress and deliver web content, thus masking the true origin of the requests.

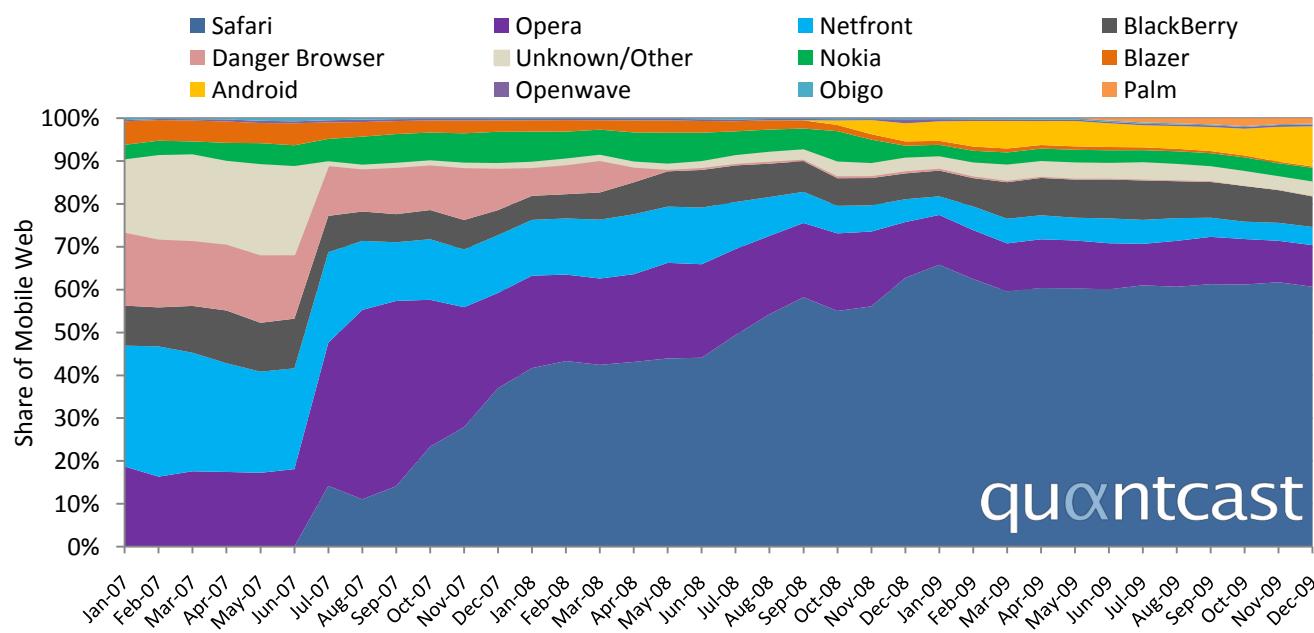


Figure 14: Browser Share of Mobile Web (Global)

Below we highlight the relative share of consumption that the leading browsers are responsible for across the globe (note small vendors are left out so the totals do not sum to 100%)

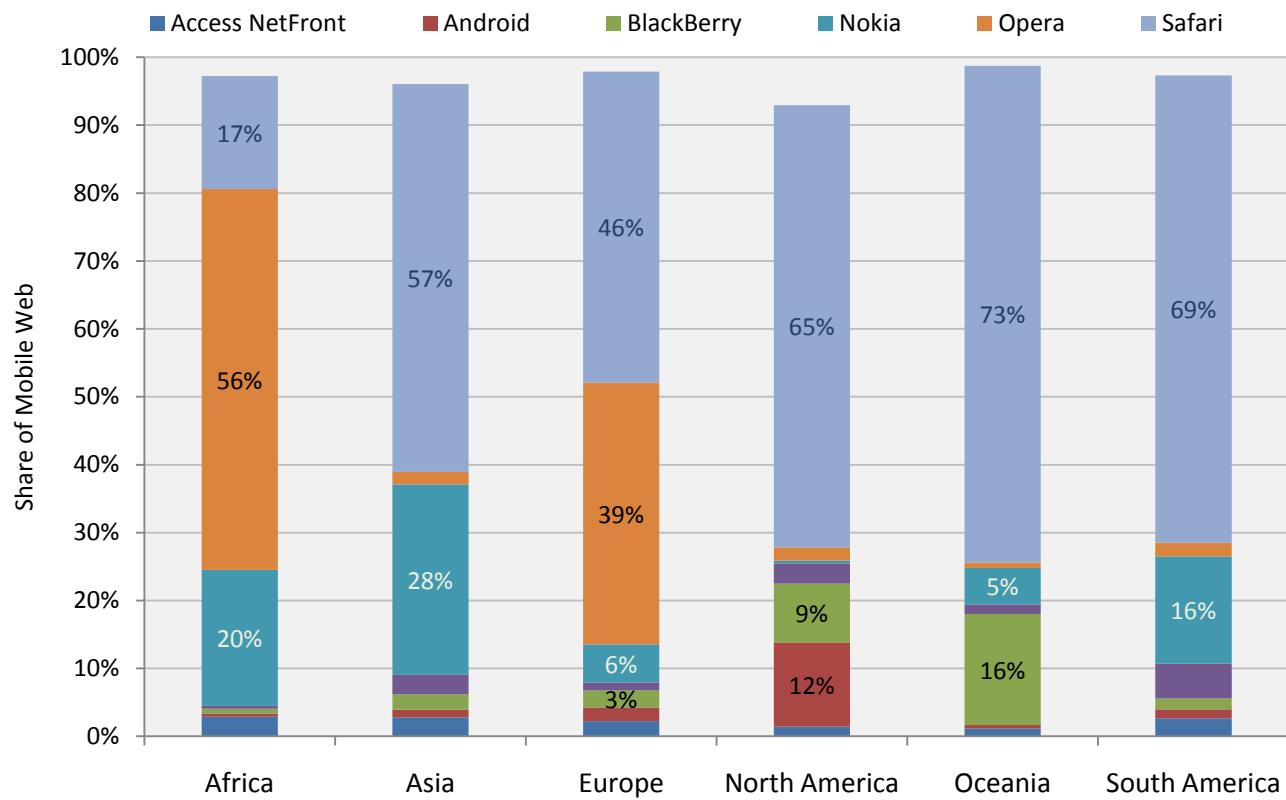


Figure 15: Browser Share of Worldwide Mobile Web (Dec '09)

Vendor Spotlight – Apple

Everyone knows Apple is the segment's star performer, but what does that performance look like and how is it divided between the iPod and iPhone?

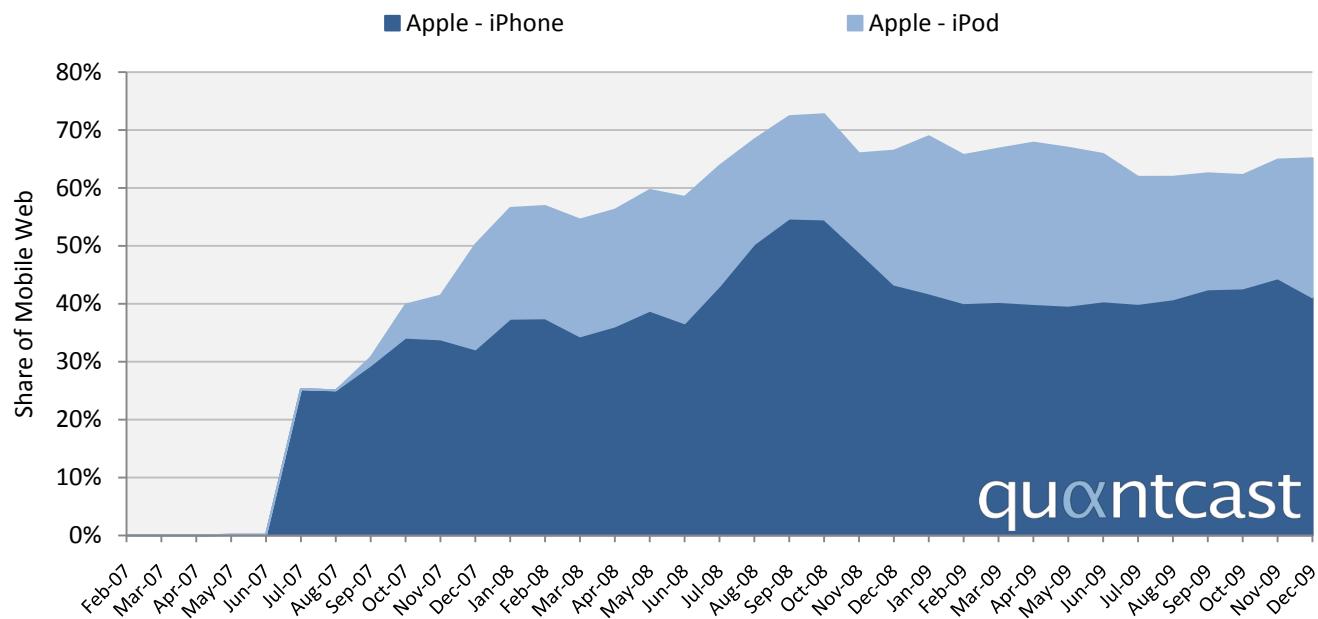


Figure 16: Apple Share of Mobile Web (North America)

Here we examine the relative proportion of Apple's market share attributable to their two devices.

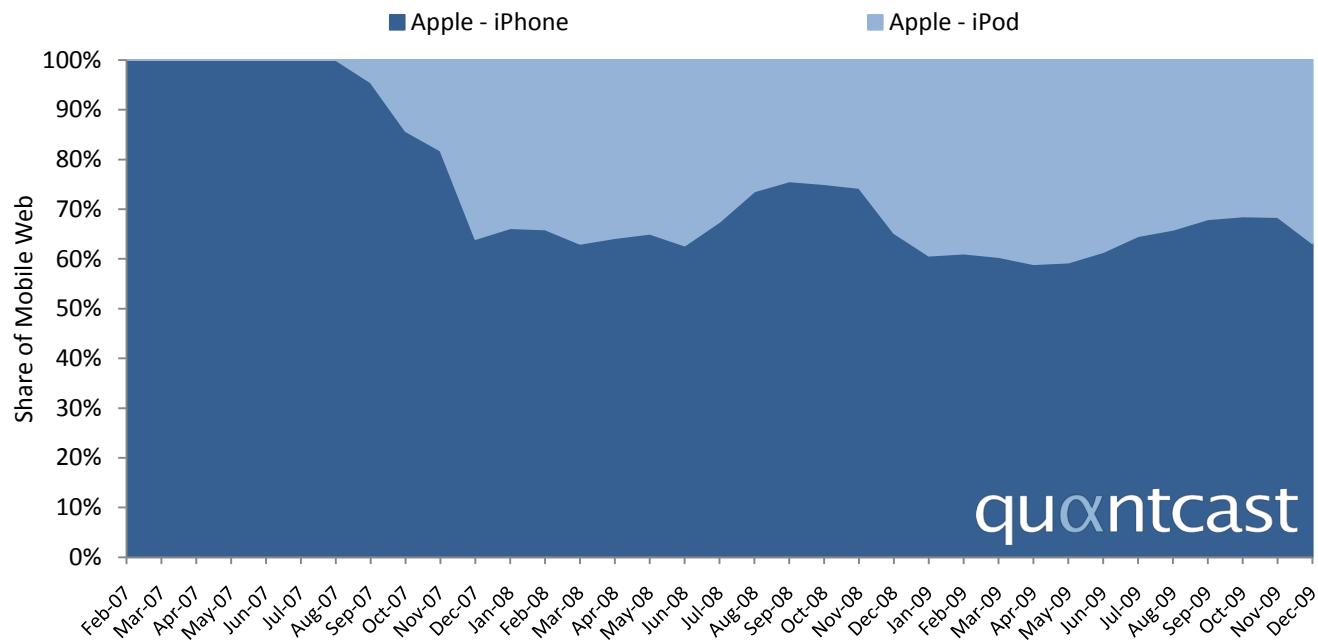


Figure 17: Apple Relative Model Share (North America)

Globally, things look quite similar.

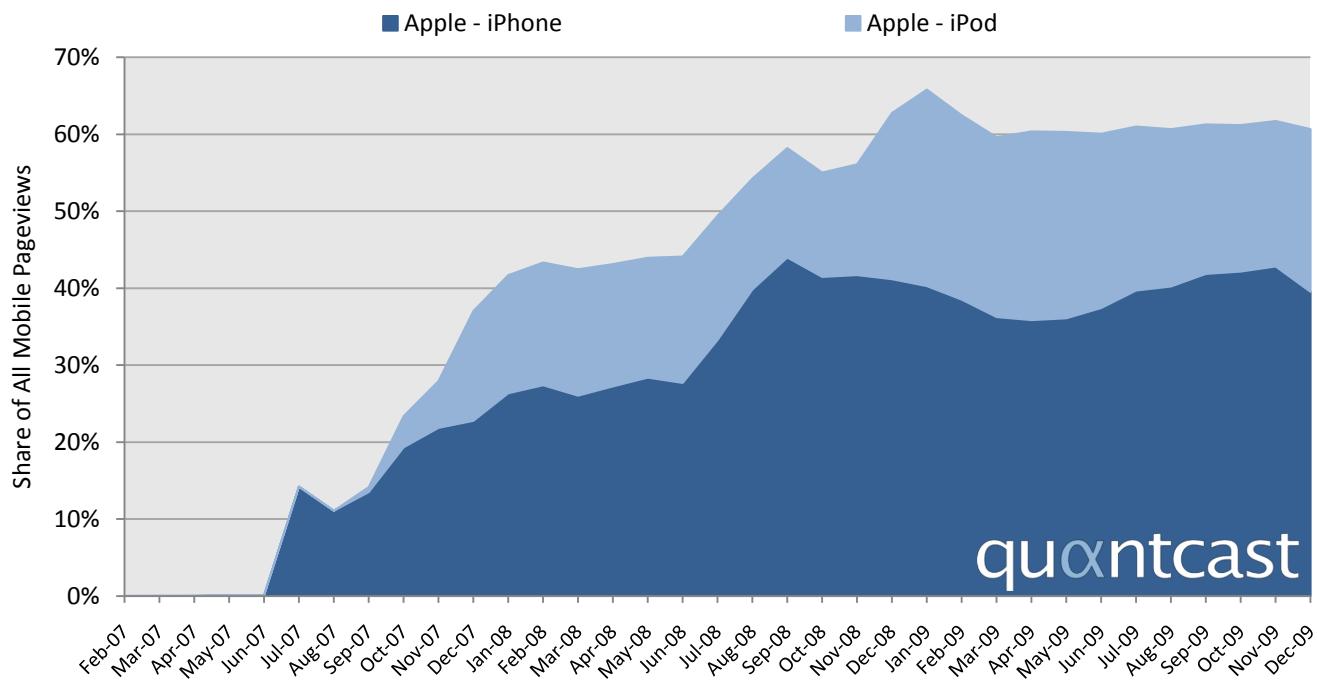


Figure 18: Apple Share of Mobile Web (Global)

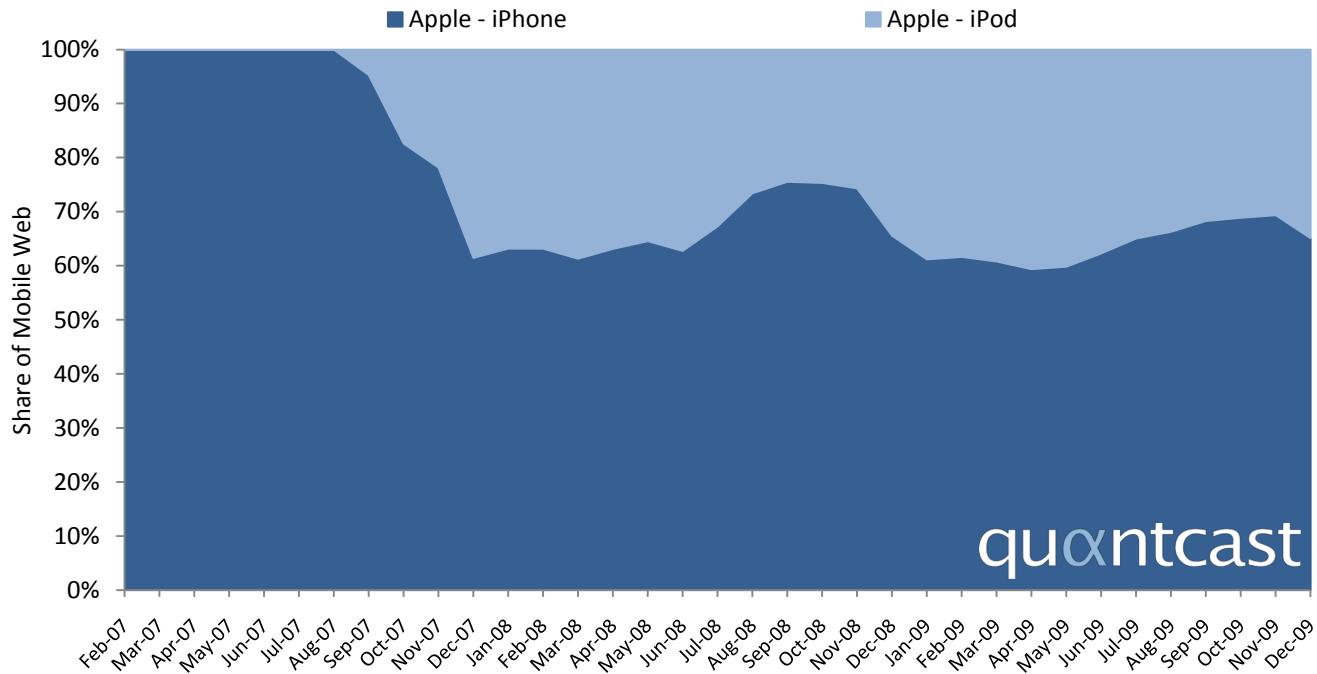


Figure 19: Apple Relative Model Share (Global)

Apple still has some way to go to achieve the same dominance in Europe and Africa that it has in the rest of the world.

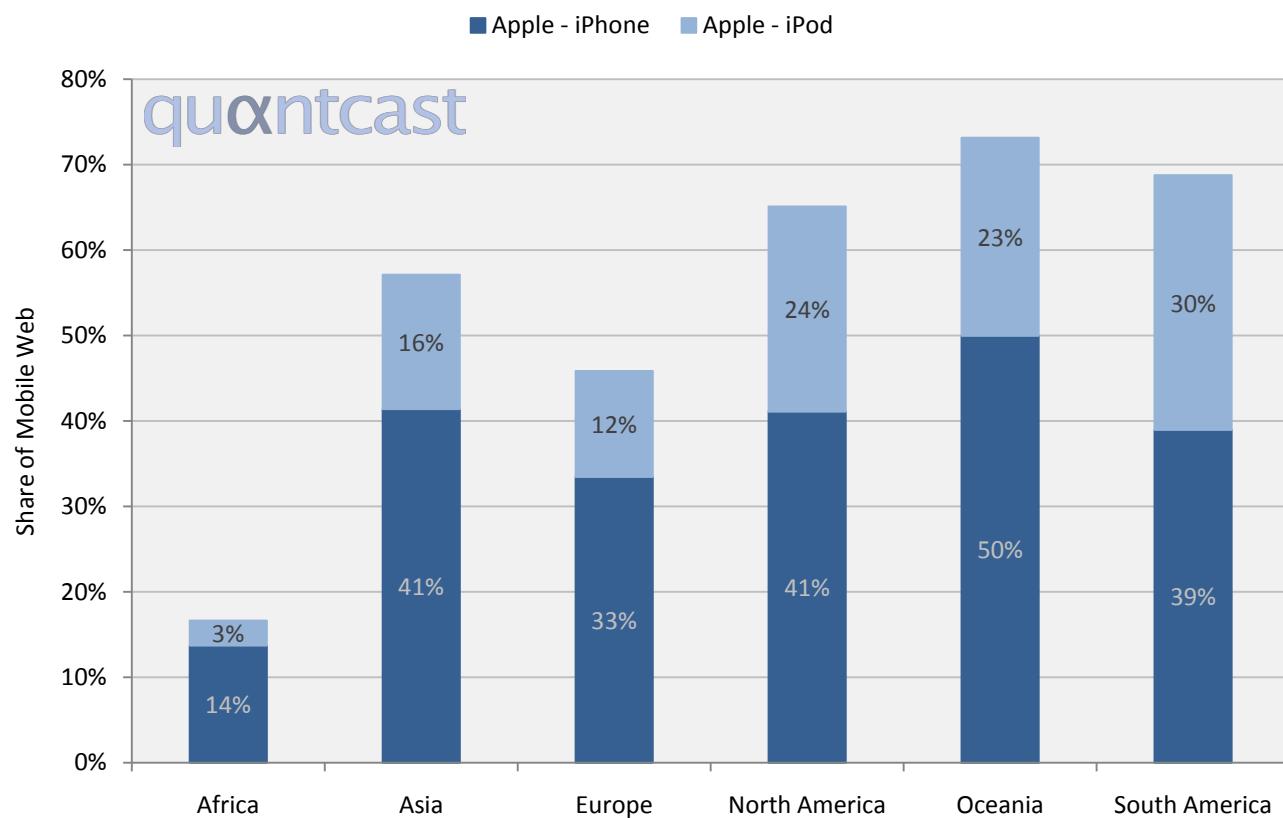


Figure 20: Apple Share of Worldwide Mobile Web (Dec '09)

Vendor Spotlight – Google's Android

Android, Google's mobile device Operating System, is now 15 months old, getting widespread developer support and has several manufactures producing Android powered devices.

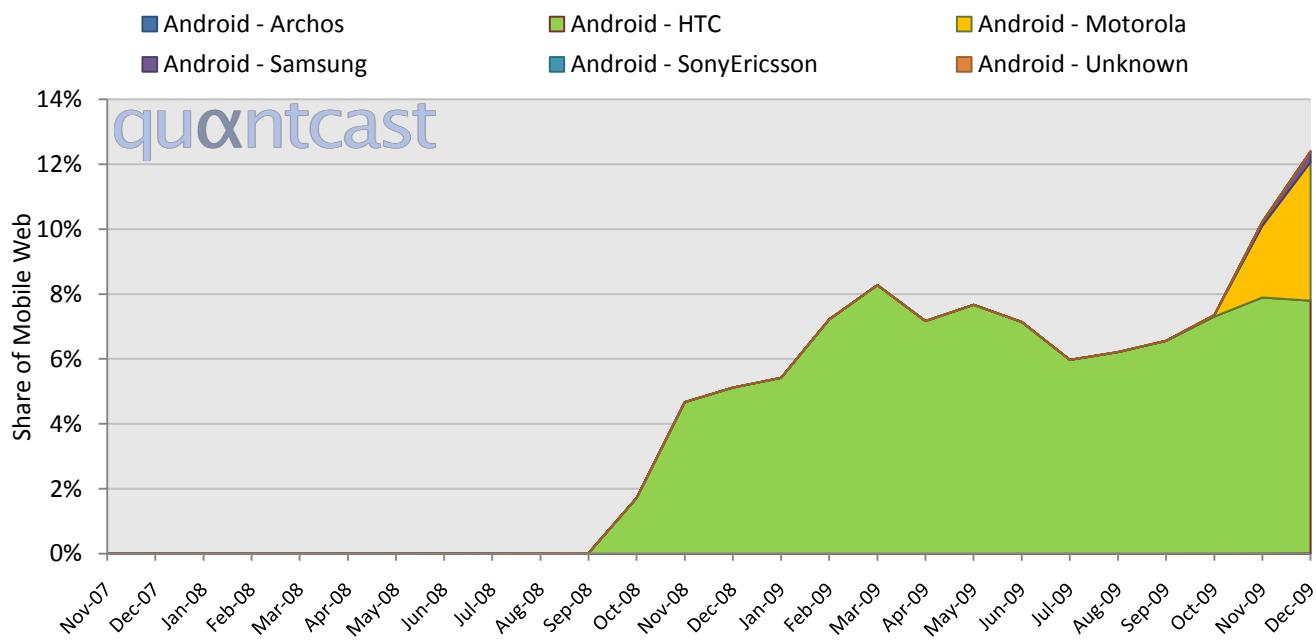


Figure 21: Android Share of Mobile Web (North America)

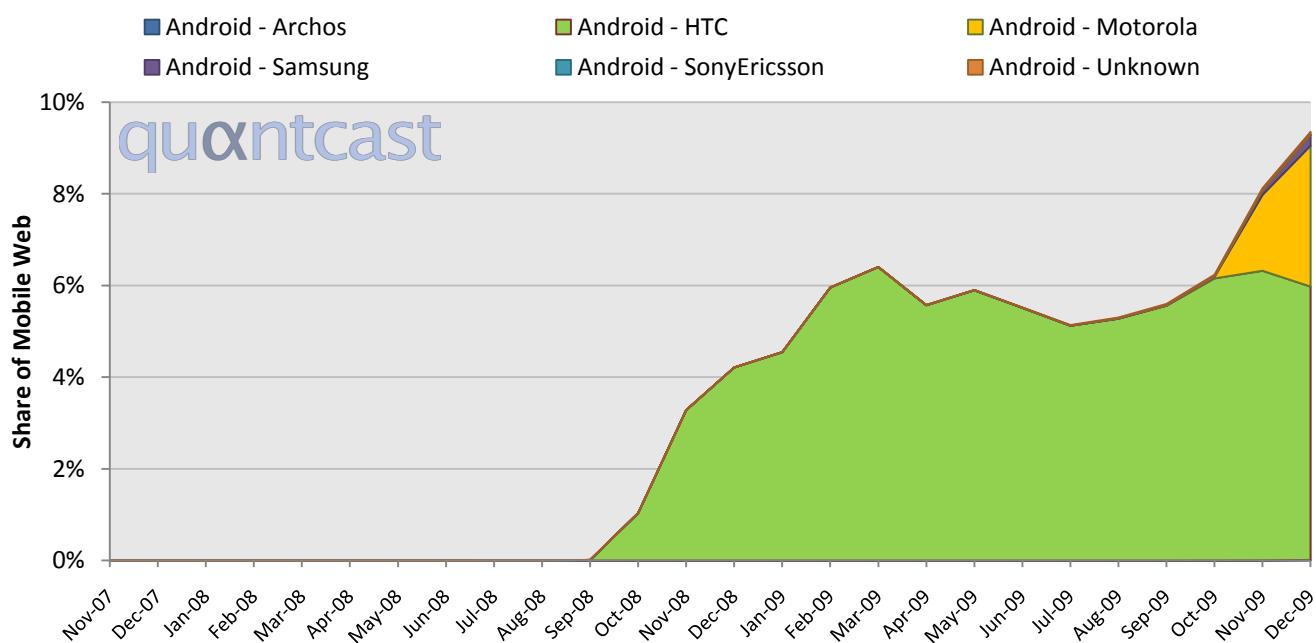


Figure 22: Android Share of Mobile Web (Global)

Currently, Android has seen its strongest adoption in North America.

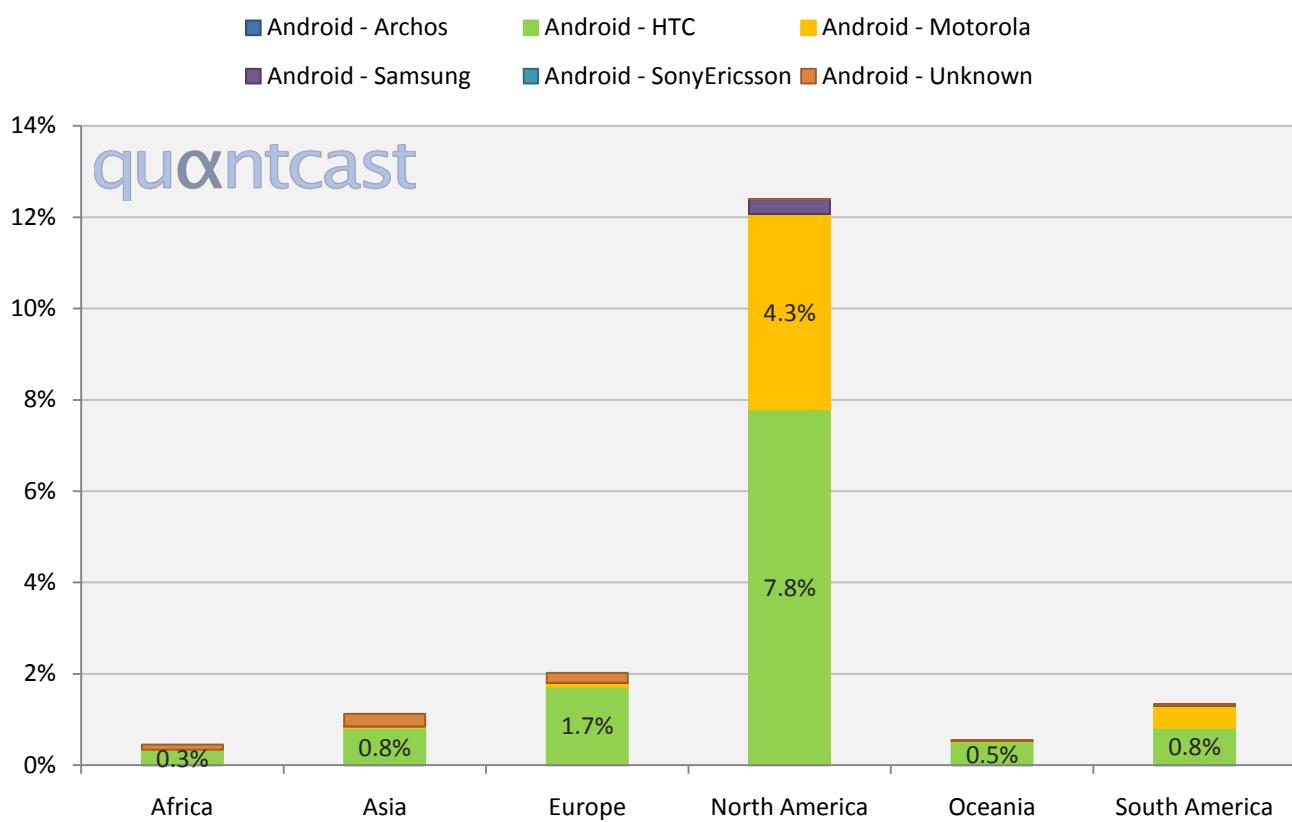


Figure 23: Android Share of Worldwide Mobile Web (Dec '09)

Vendor Spotlight – Motorola

A Droid Fueled Comeback?

When, in 2008, Motorola announced that they would focus exclusively on Android and Windows Mobile powered devices, many industry observers thought it risky considering that Motorola was too far behind rivals such as HTC.

Jump forward one year, Motorola now has two Android powered devices in market in North America and the early data suggests that their bold bet might well be paying off.

Having limped along at approximately 0.5% market share of pageviews throughout 2009, the MB200 (aka Cliq) alone more than doubled Motorola's North American share. However, the standout performer is the Droid, capturing almost 4% of the market share in its first full month since release and giving Motorola 10x the U.S. mobile web market share that it had just one quarter earlier.

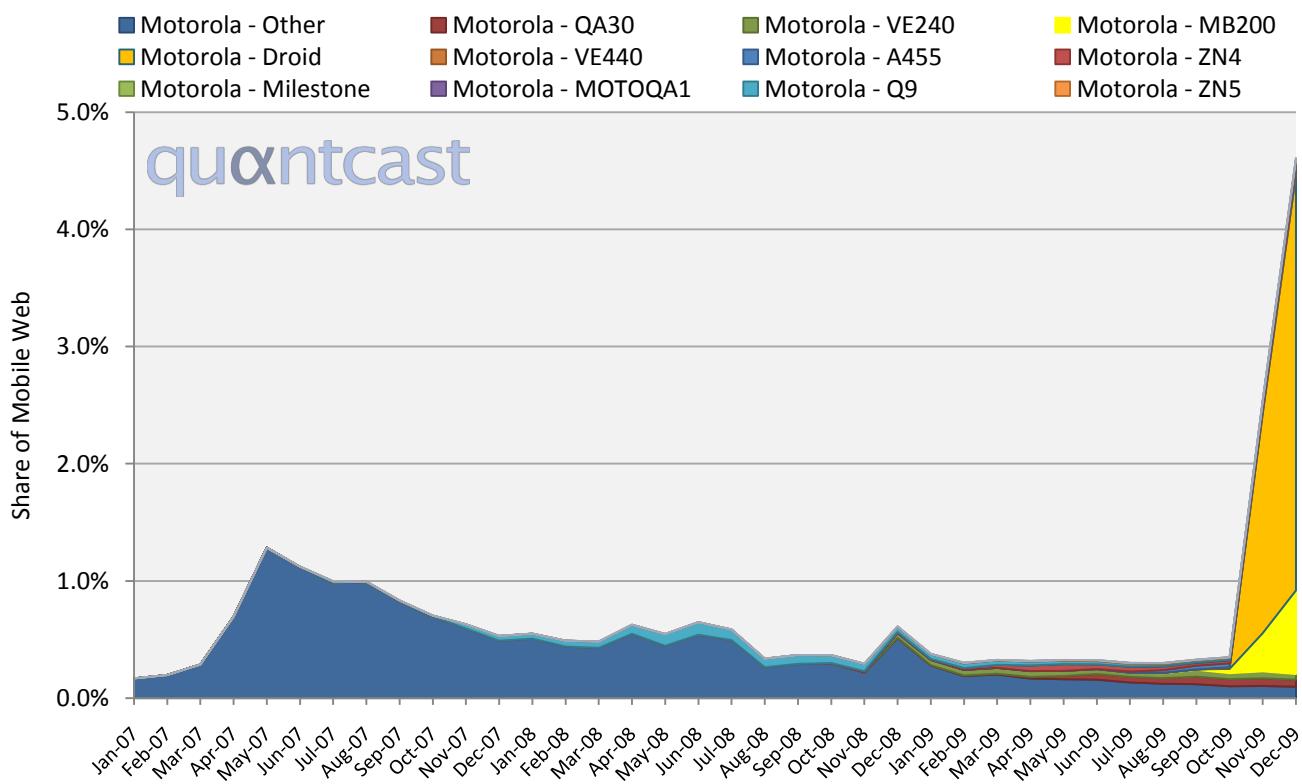


Figure 24: Motorola Share of Mobile Web (North America)

Motorola's Droid is the most impressive entry into the mobile web market since the iPhone and represents a huge boost for Google's Android operating system.

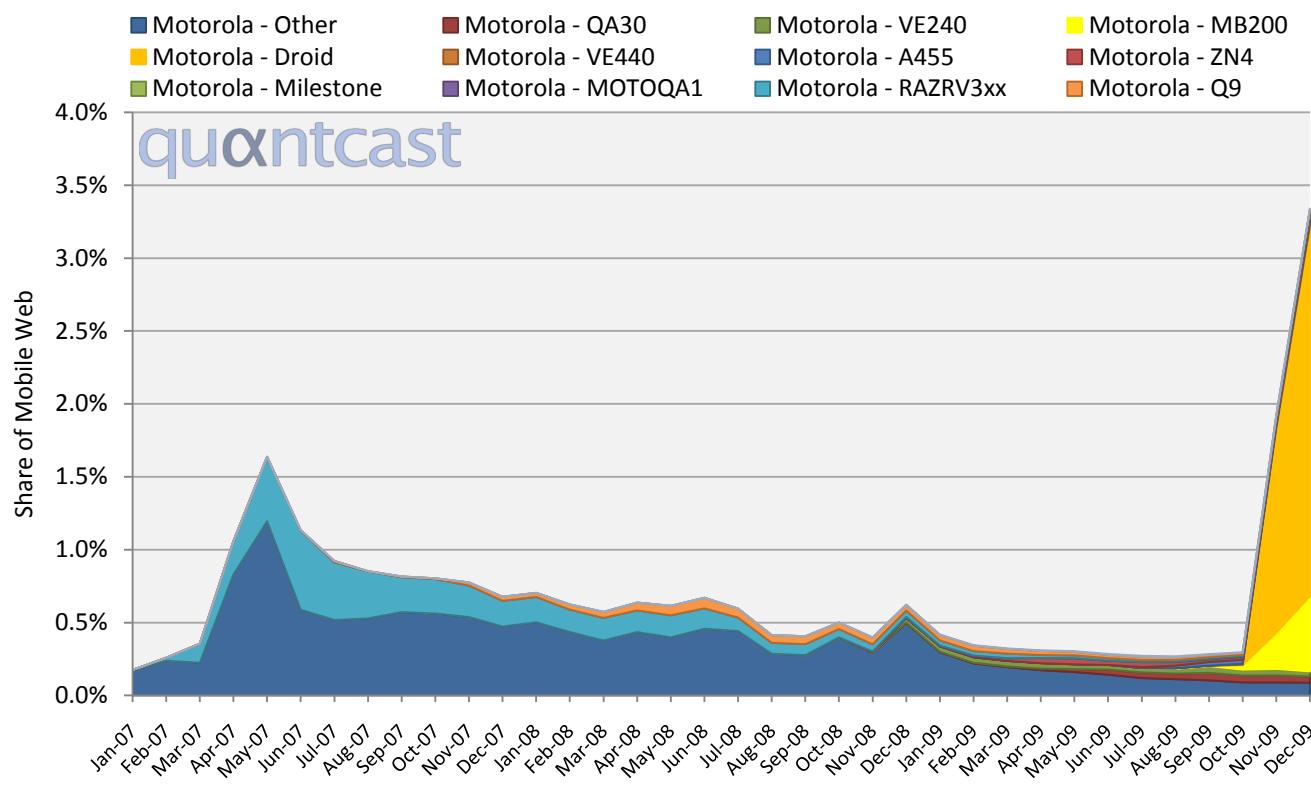


Figure 25: Motorola Share of Mobile Web (Global)

Look for more Droid (and droid-like) devices from Motorola in 2010.

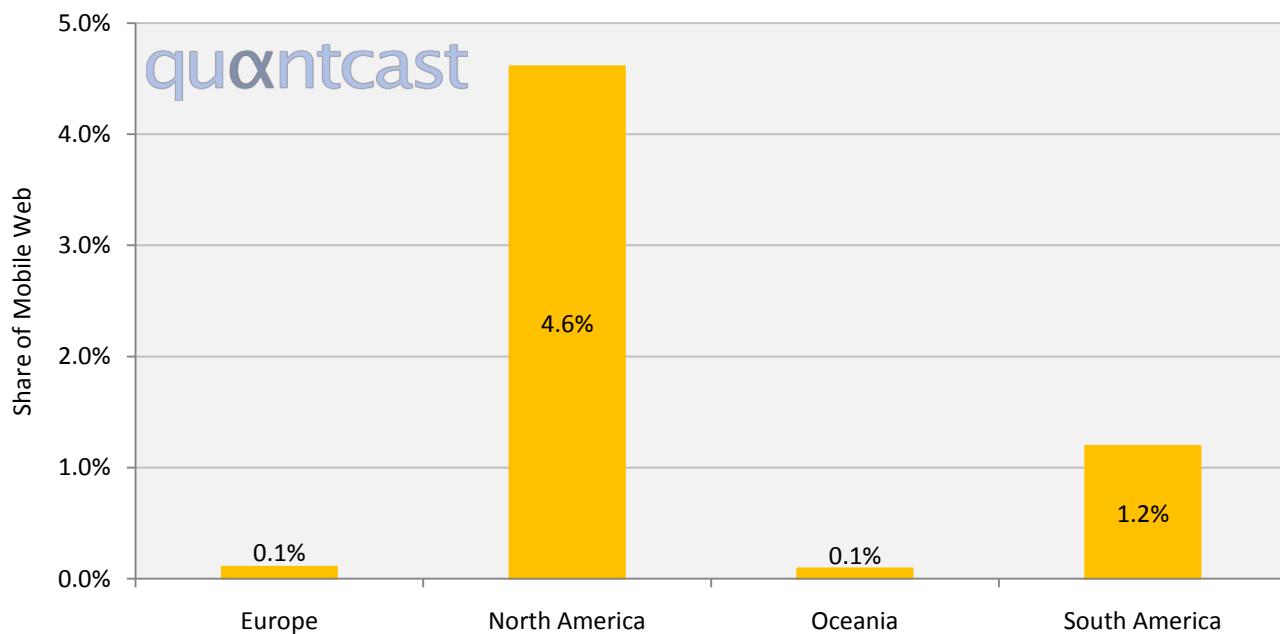


Figure 26: Motorola Share of Worldwide Mobile Web (Dec '09)

Vendor Spotlight – RIM/Blackberry

Long a favorite for the business set, 2009 saw the beginning of a concerted push at the consumer market from Research in Motion.

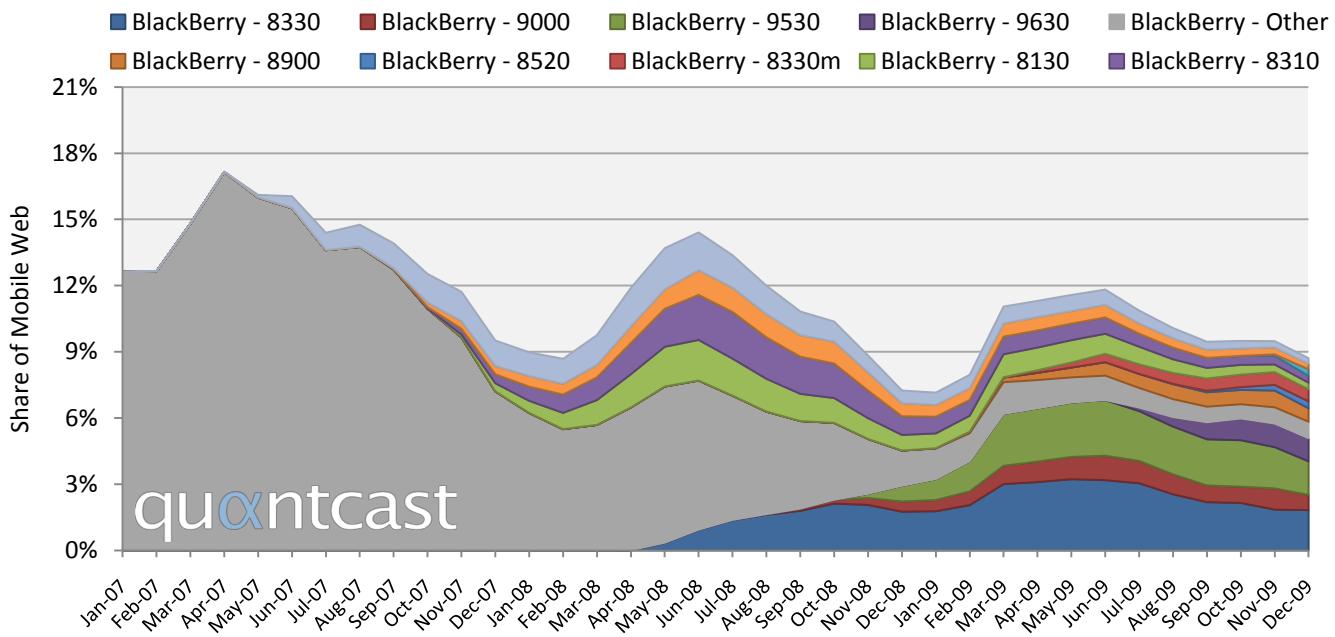


Figure 27: BlackBerry Share of Mobile Web (North America)

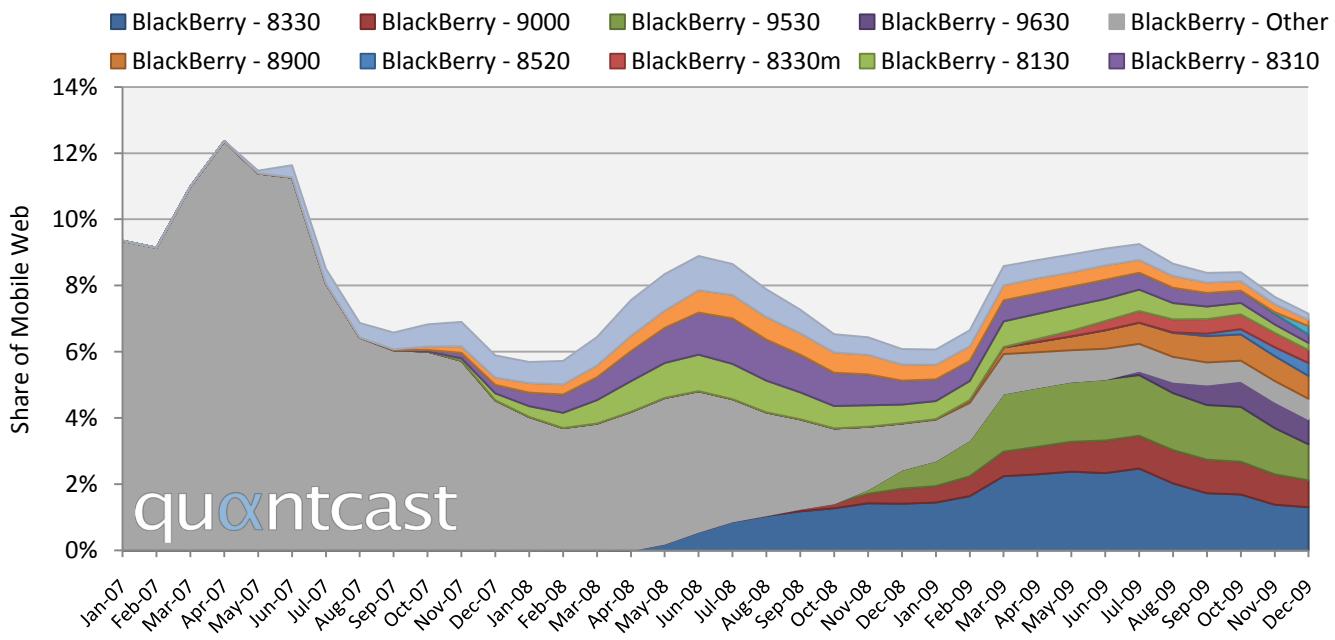


Figure 28: BlackBerry Share of Mobile Web (Global)

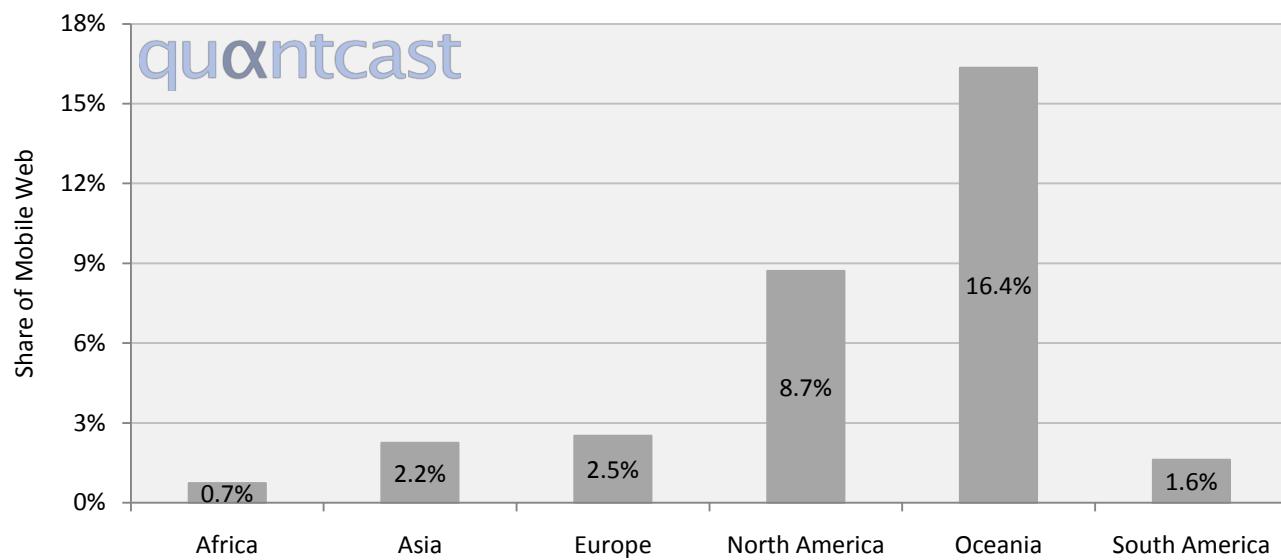


Figure 29: Blackberry Share of Worldwide Mobile Web (Dec '09)

Like Apple, Research In Motion controls the entire stack on their popular line of mobile devices. Unlike Apple, RIM doesn't have a market leading, competitive mobile web browsing experience. Just look at the speed at which Android powered devices have overtaken Blackberry devices in North American mobile pageview share.

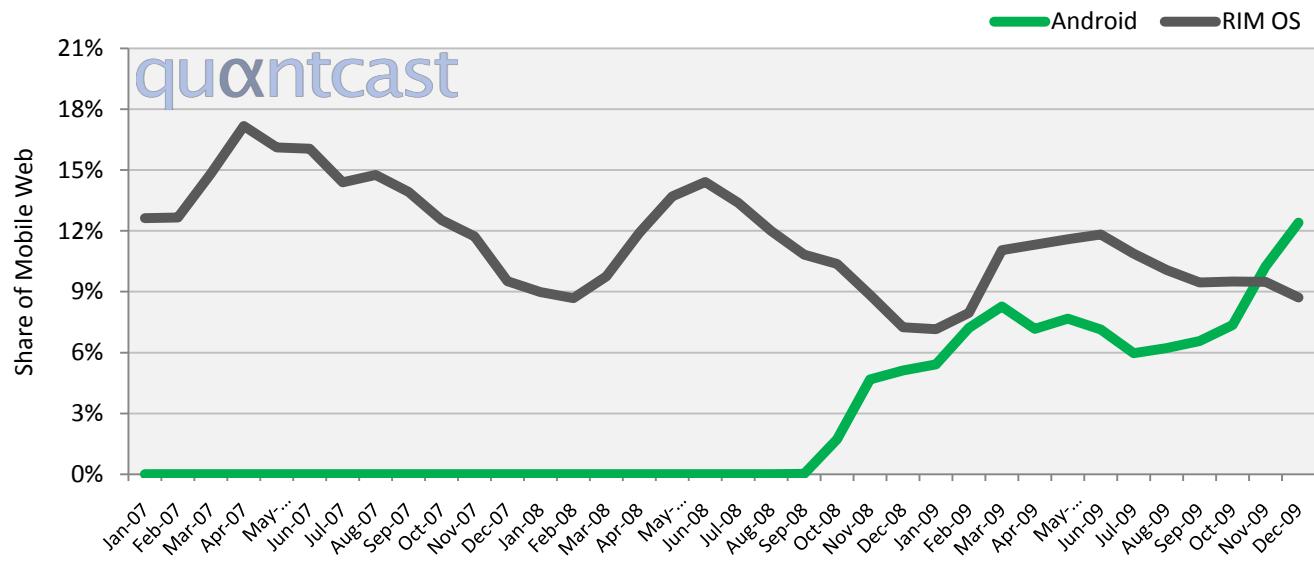


Figure 30: Android Vs. RIM OS Share of Mobile Web (North America)

If email's your thing, then a Blackberry just can't be beat, (your author is never without his), however, as we expect our handhelds to do more on the web, in order to stay competitive...

RIM needs a better browser experience, and they need it quickly

Vendor Spotlight – HTC

It seems like HTC is making devices for everyone, from Google to your mobile carrier, and that has enabled them to quickly capture significant Mobile Web share.

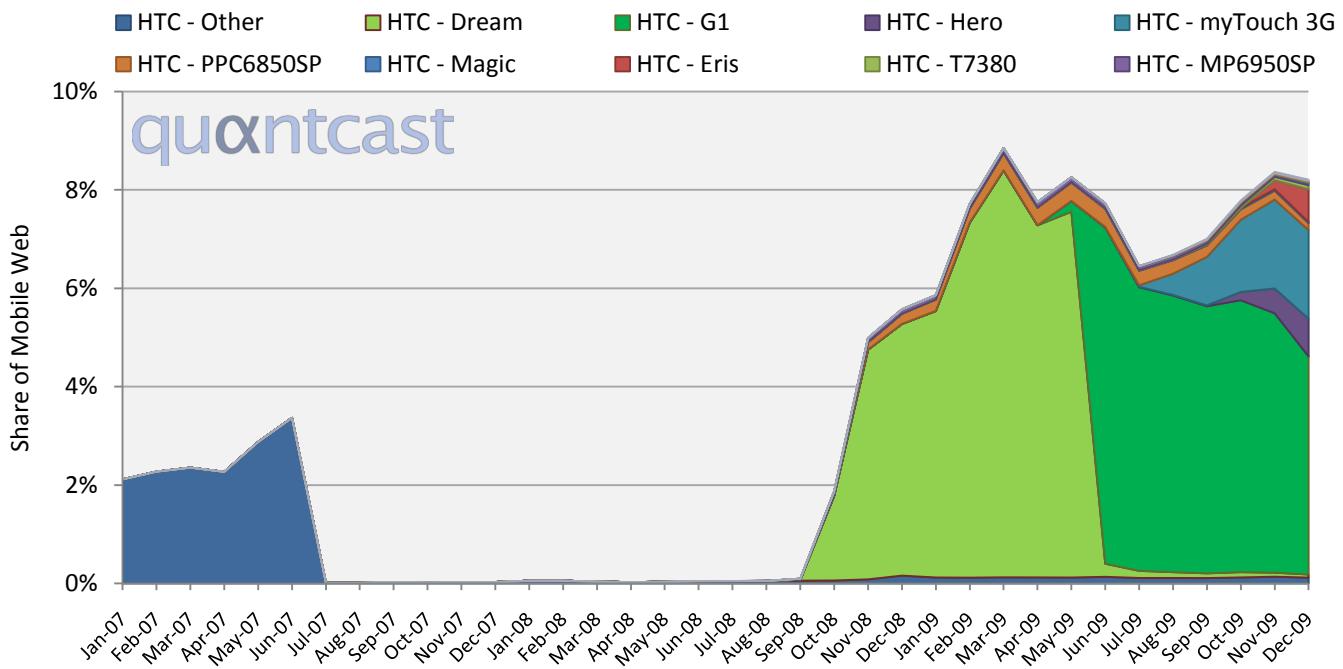


Figure 31: HTC Share of Mobile Web (North America)

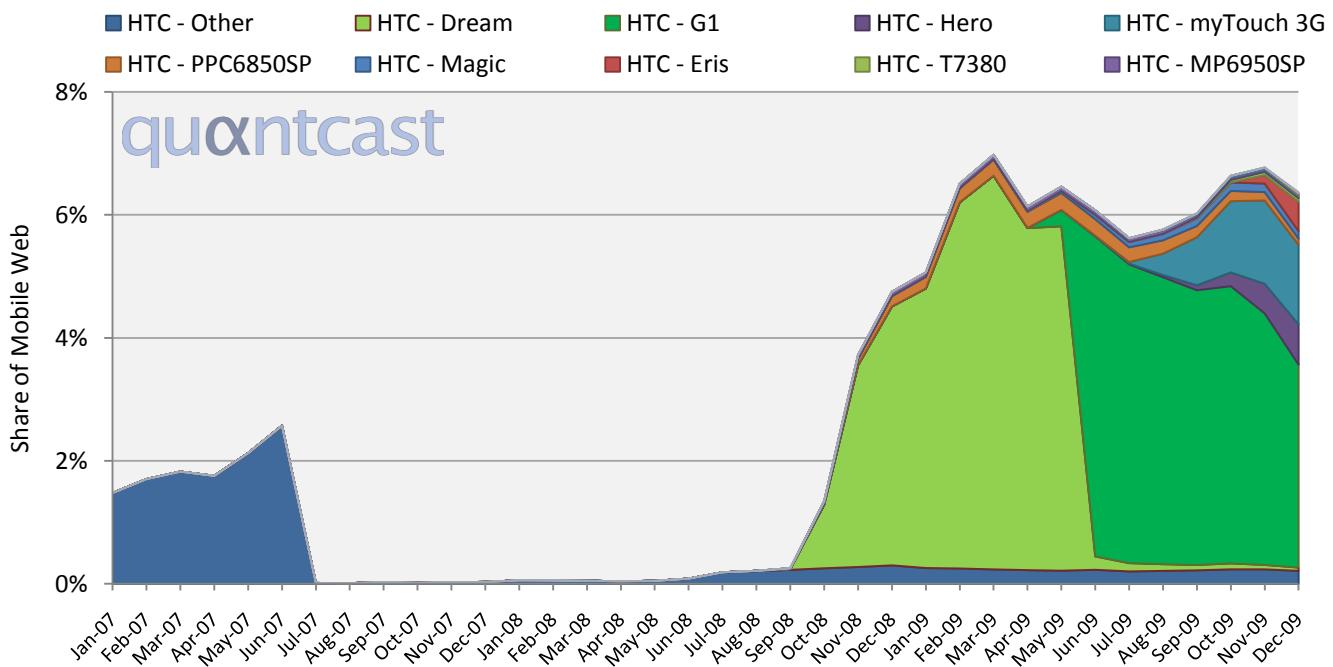


Figure 32: HTC Share of Mobile Web (Global)

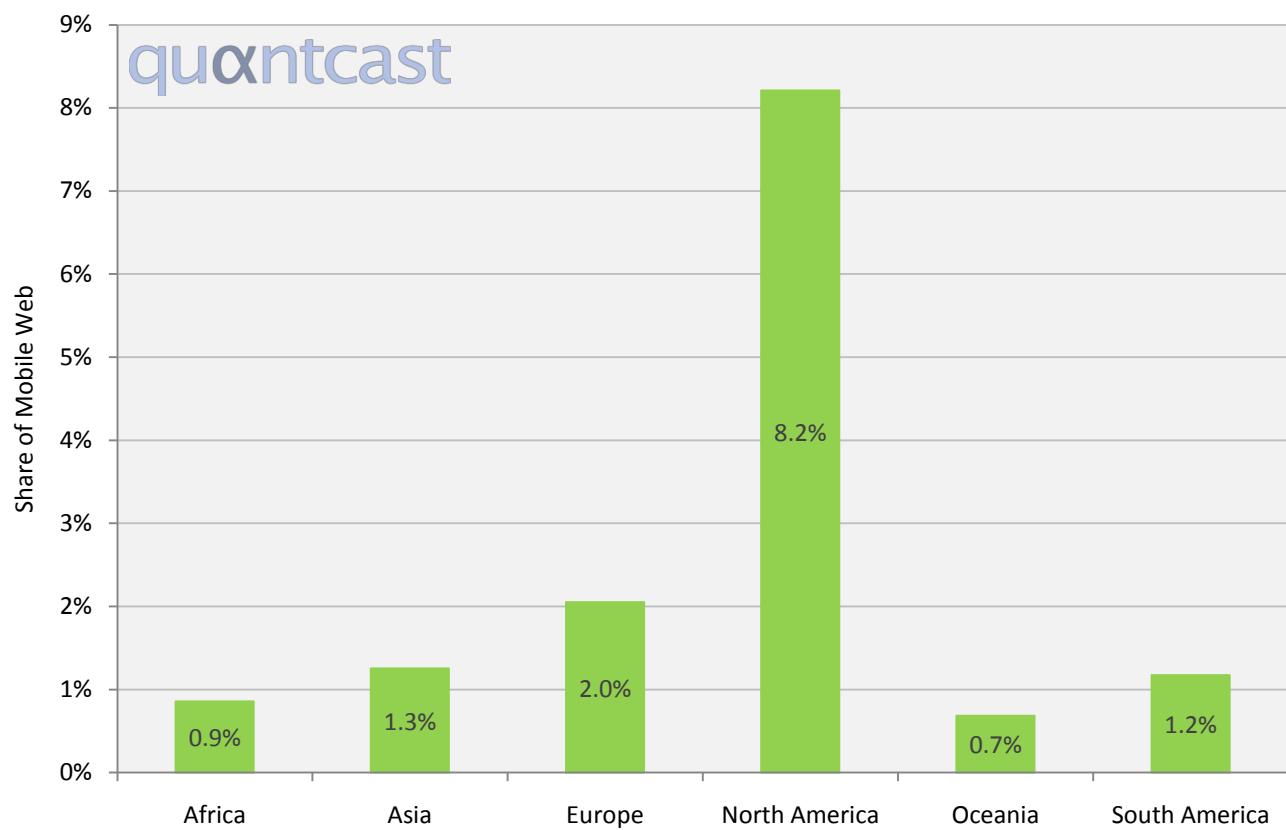


Figure 33: HTC Share of Worldwide Mobile Web (Dec '09)

Vendor Spotlight – Palm

The original pioneer of the handheld mobile computer, Palm has been in decline for some time, but, does the introduction of some attractive new devices mean they're on their way back?

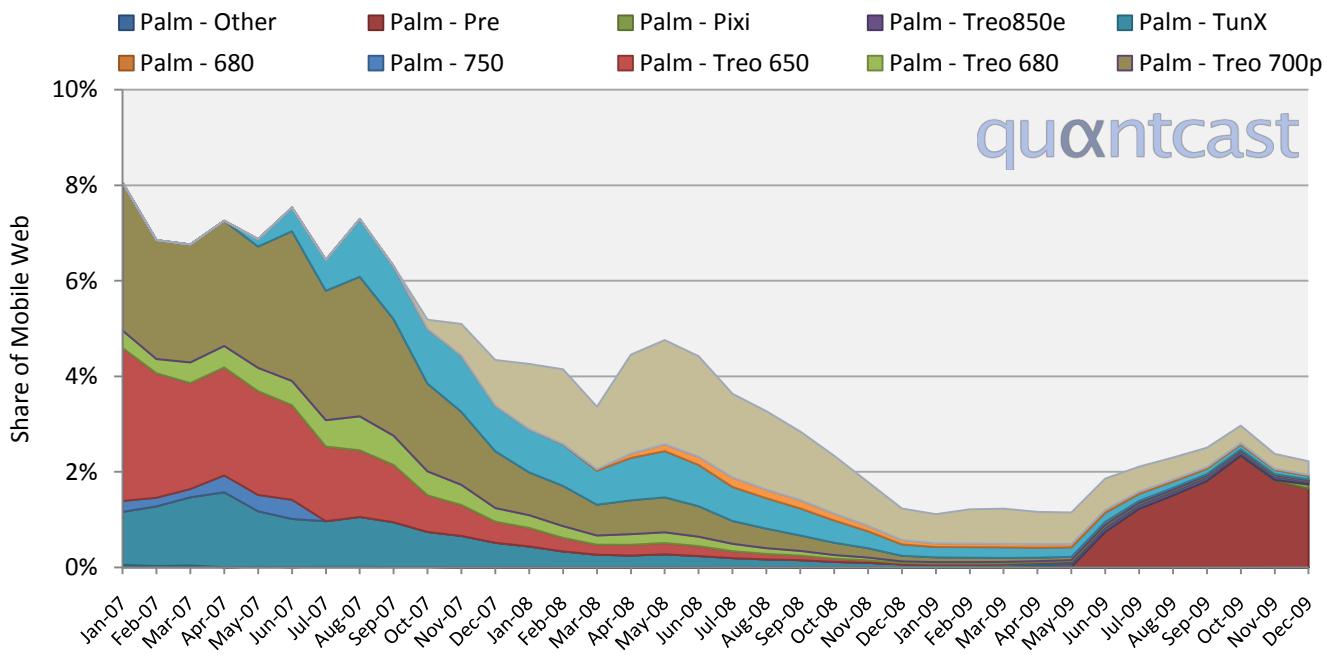


Figure 34: Palm Share of Mobile Web (North America)

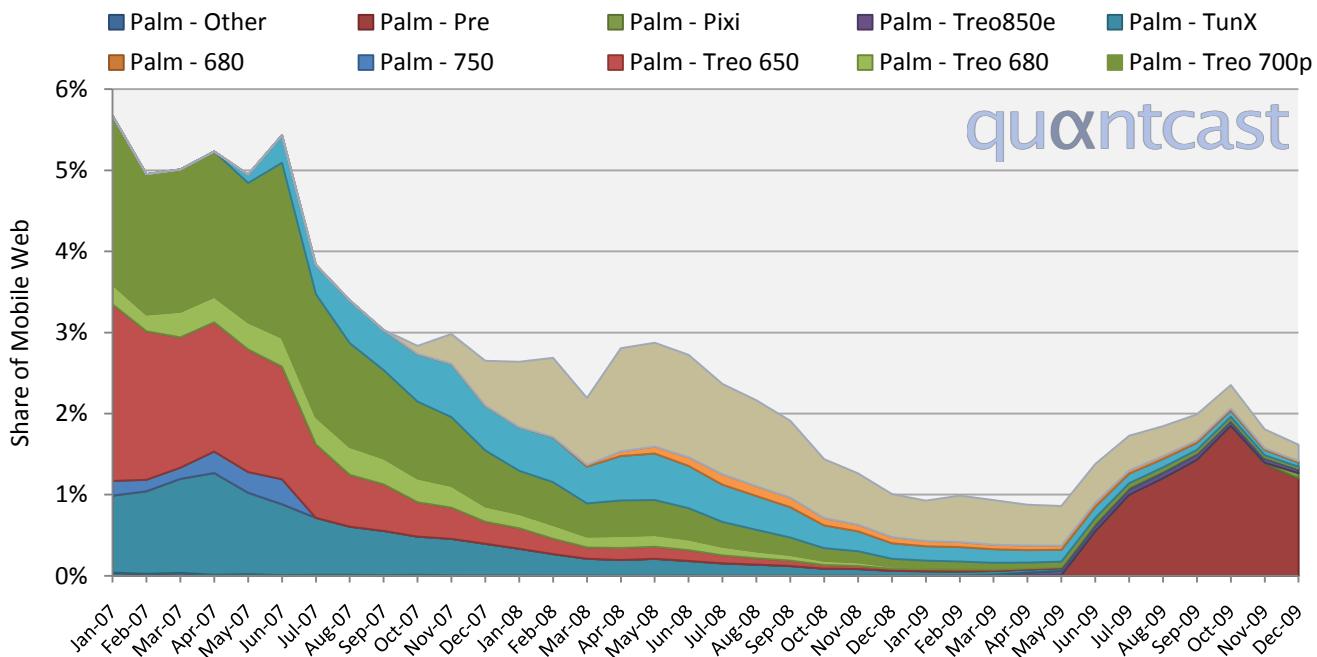


Figure 35: Palm Share of Mobile Web (Global)

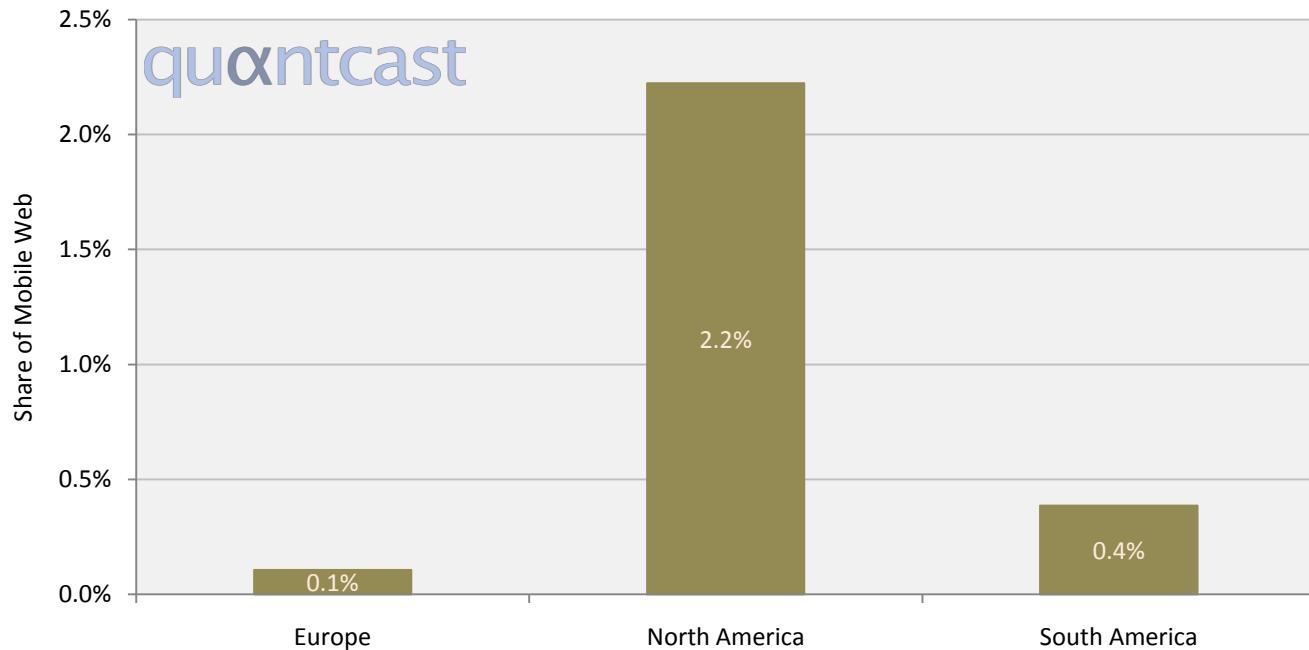


Figure 36: Palm Share of Worldwide Mobile Web (Dec '09)

With minimal penetration outside of North America, Palm's flagship Pre has a new fight on its hands from Motorola's Droid on the Android Platform.

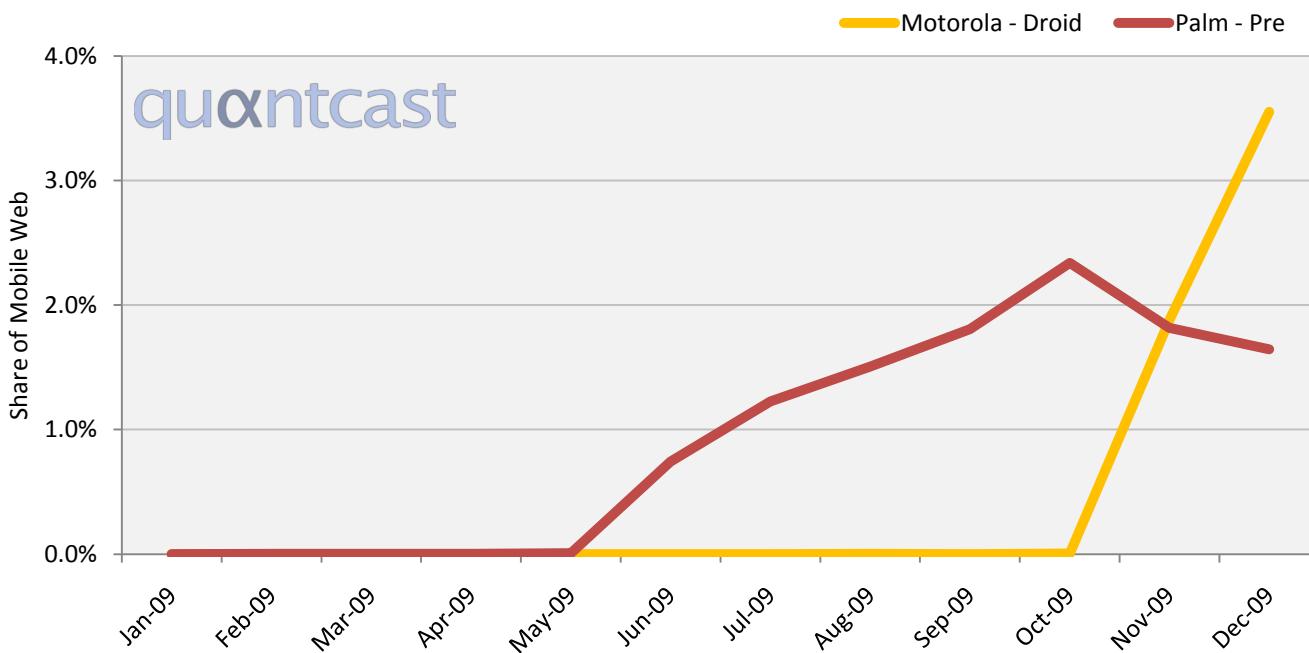


Figure 37: Palm Pre Vs. Motorola Droid Mobile Web Share (North America)

Vendor Spotlight – Symbian

The Symbian OS powers many Nokia phones along with devices from a few other manufacturers, but it has limited traction in North America.

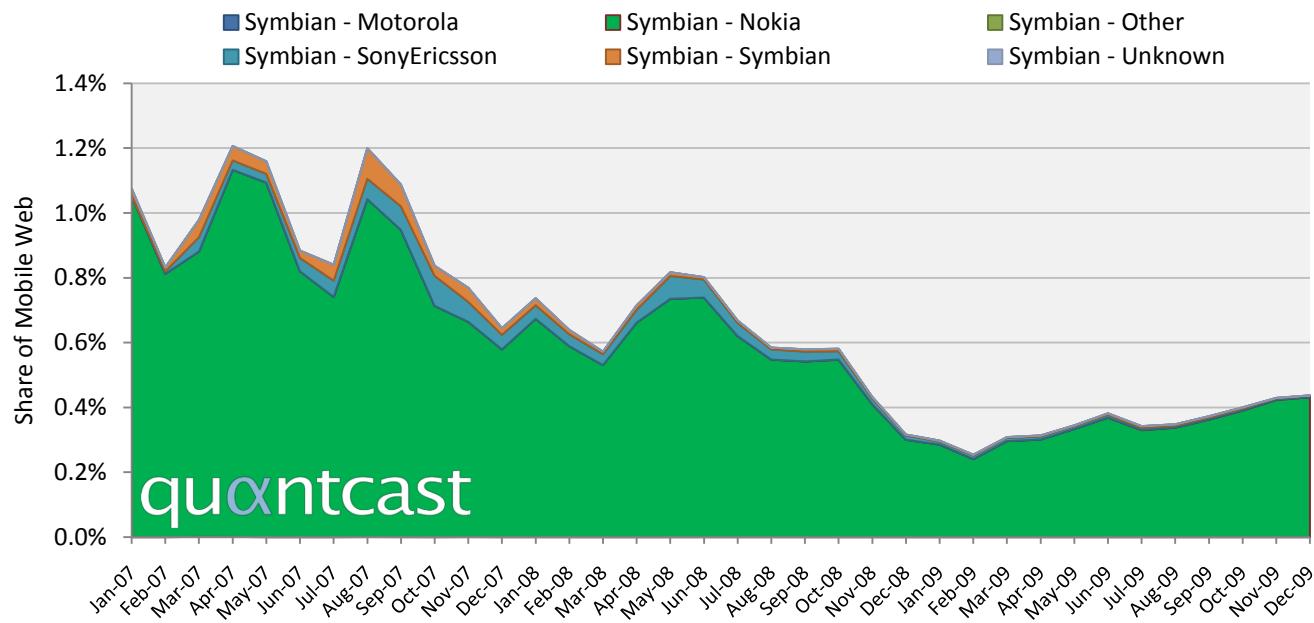


Figure 38: Symbian Share of Mobile Web (North America)

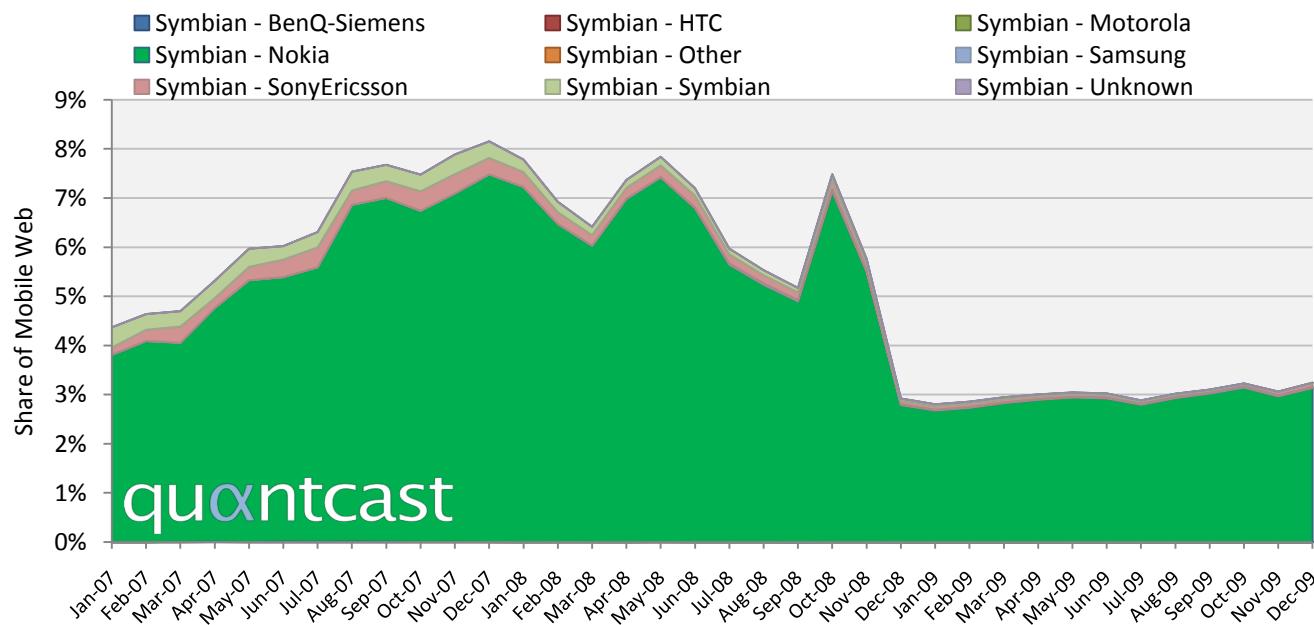


Figure 39: Symbian Share of Mobile Web (Global)

Nokia needs a superb smartphone to do anything noteworthy in North America

Stocking Stuffers 2009

While only certain parts of the world celebrate on December 25th, we still thought it would be fun to see what our data tells us about Santa's mobile device preference for the 2009 holiday season.

To gauge the most popular gifts, we compared the volume of mobile pageviews in the week of December 18th-24th, with the volume for the same devices in the following week, December 25th-31st.

By comparing the share of web consumption before and after, we are pleased to present the Quantcast Holiday Mobile Movers and Shakers List for 2009. Because we don't want a specific model taking the prize by going from 10 to 100 pageviews, nor do we want a behemoth being recognized for only 1% growth, we've applied some [nifty math](#) to account for the differences in absolute pageview volumes between models.

Below we list the top stocking stuffers for the United States and, for comparison, you can see what Santa dropped off in the United Kingdom a few hours earlier.

Rank	Vendor	Model
1	Apple	iPod
2	Nintendo	DSi
3	Apple	iPhone
4	Motorola	Droid
5	HTC	Eris
6	Motorola	MB200 (aka Cliq)
7	Sony	PSP
8	HTC	myTouch 3G
9	HTC	Hero
10	BlackBerry	9700
11	Palm	Pixi
12	Palm	Pre
13	Samsung	SPH-M900
14	Samsung	SGH-A797
Quantcast Holiday Mobile Movers and Shakers List (United States)		

Rank	Vendor	Model
1	Apple	iPod
2	Apple	iPhone
3	Nintendo	DSi
4	Nokia	5530
5	Nokia	5800
6	Sony	PSP
7	BlackBerry	9700
8	BlackBerry	8520
9	HTC	Hero
10	SonyEricsson	W350
11	Samsung	GT-S5230
12	Nokia	N97
13	SonyEricsson	U1i
14	BlackBerry	9000
Quantcast Holiday Mobile Movers and Shakers List (United Kingdom)		

Apple had a very good holiday period, with the iPod showing a remarkable 47% increase in web activity in the week immediately following Christmas.

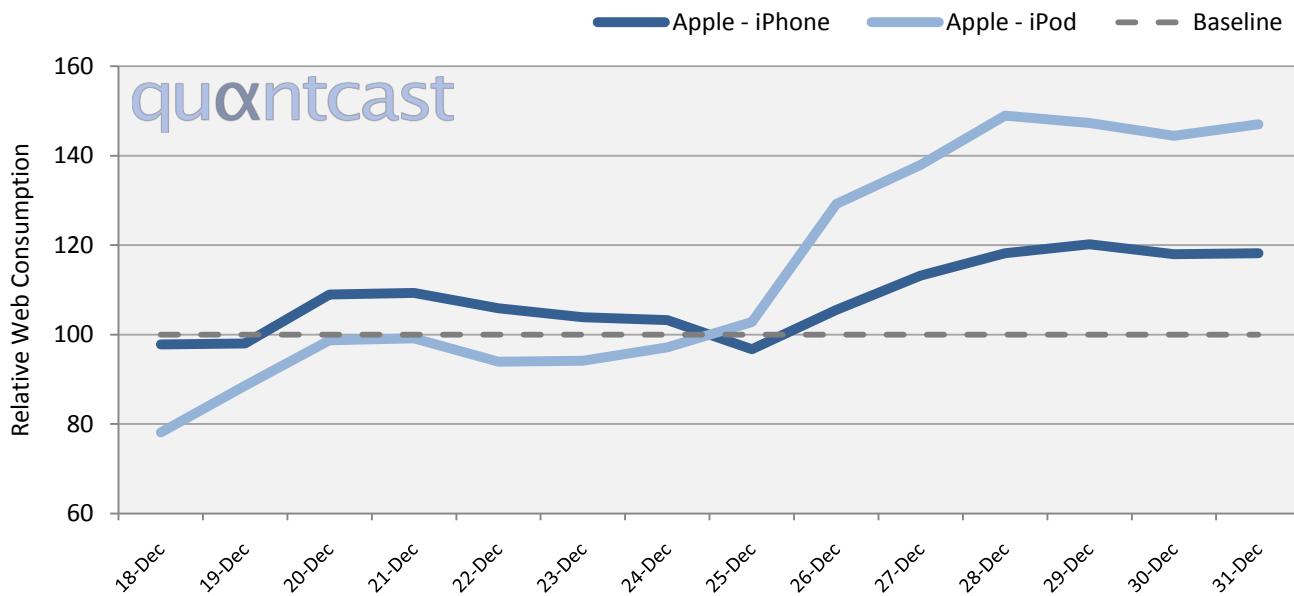


Figure 40: Apple's Holiday Performance 2009 (United States) – Baseline = 100

The Nintendo DSi was a popular gift on both sides of the pond.

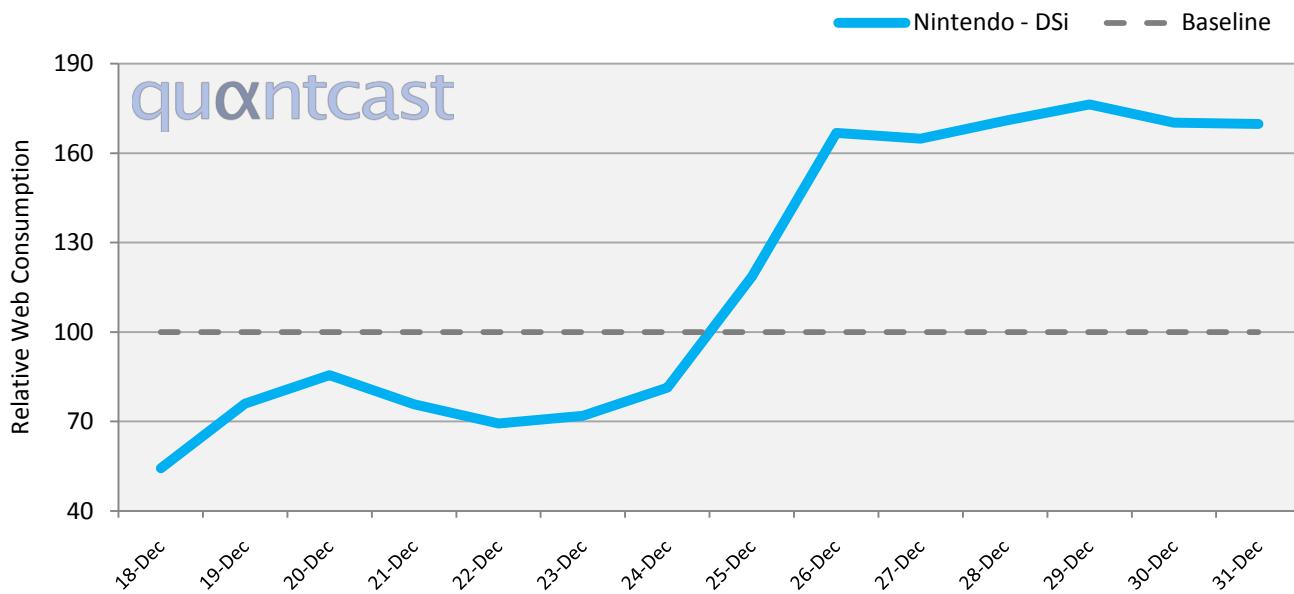


Figure 41: Nintendo DSi's Holiday Performance 2009 (United States) – Baseline = 100

Motorola's Droid was strong (as was the HTC Droid Eris, aka Desire ADR6200).

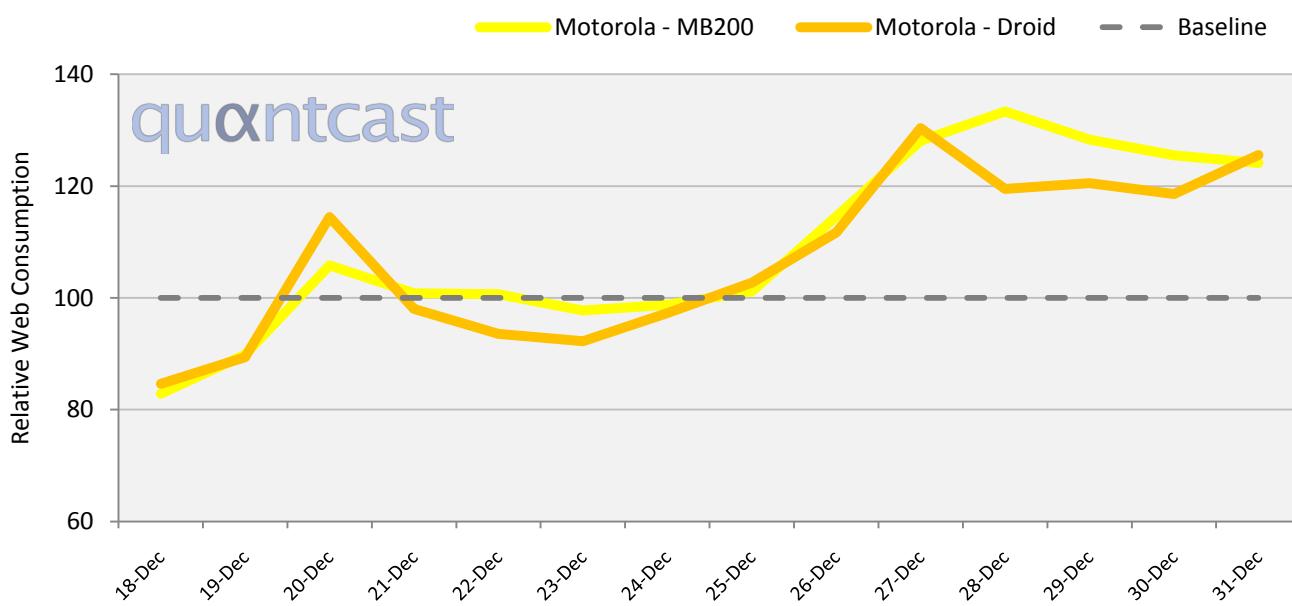


Figure 42: Motorola's Holiday Performance 2009 (United States) – Baseline = 100

Palm also saw some traction, the Pixi had a 62% increase and the Pre 11%, though the Pixi did start with a smaller base.

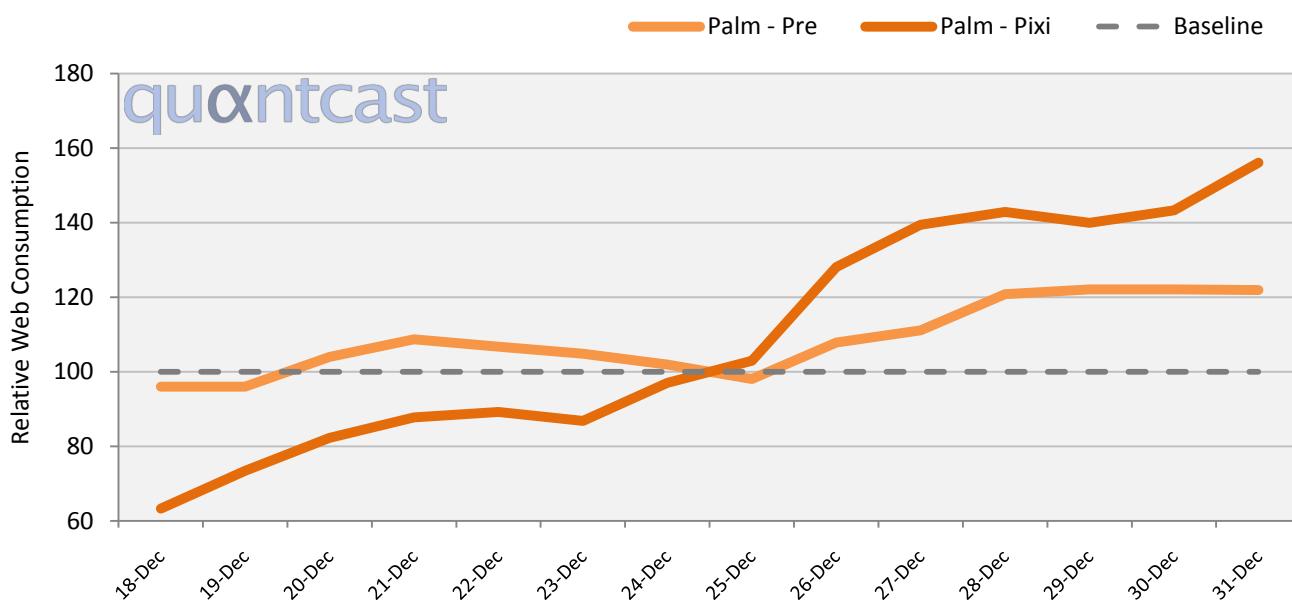


Figure 43: Palm's Holiday Performance 2009 (United States) – Baseline = 100

The 2009 holiday season also saw a promising return for Archos' new Android powered device, the Archos5.

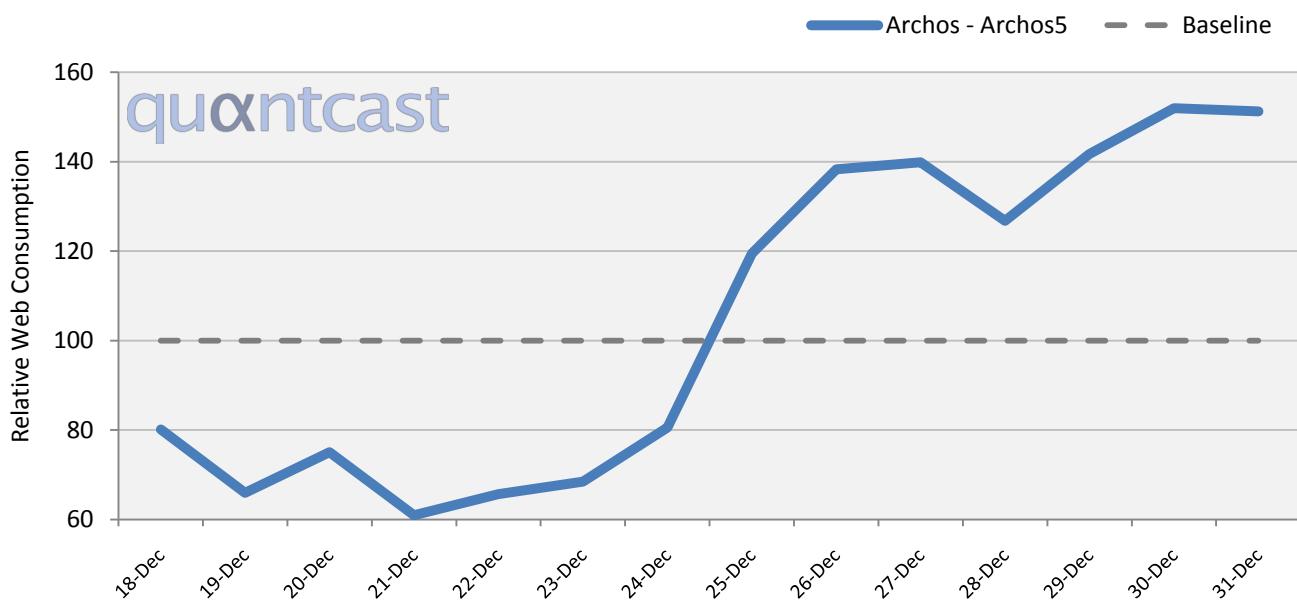


Figure 44: Archos5's Holiday Performance 2009 (United States) – Baseline = 100

A Sneak Peak at 2010

It's an easy call to predict that mobile web usage will continue to grow its share of overall web activity in 2010, but the big question is, by how much? Based on our data and the growth rates that it indicates, we expect that:

Mobile's share of pageviews in North American will grow a whole percentage point to 2.3% by the end of 2010

Globally we estimate an increase from 0.95% to over 1.8%.

However, the boundary between mobile and PC is blurring and Apple's much anticipated tablet is likely to complicate the distinction further, while pushing web access on the go to new levels.

One thing's for sure, we'll be seeing many new mobile devices contributing to this trend and Quantcast's massive Internet visibility gives us the ability to spot new devices in the wild long before they are announced.

We saw our first iPhone in February 2007, almost 5 months before its launch. Android devices were spotted a full year before the official October 2008 launch and Palm's Pre was surfing the web six months before its official launch.

By now, everyone's heard of the Nexus One, aka the Google Phone, but also look out for these and more in 2010:

Numerous Motorola models including the Sholes Tablet (aka XT701), Opus One, Zeppelin and Motus

HTC Espresso, Bravo, Paradise, Liberty, Legend and Photon

SonyEricsson X3 (aka SO-01B, Rachael), X4 (aka Robyn) and Susan.

A mysterious trio of new Blackberry devices with codenames picked from the BBC's Doctor Who –Tardis, Davros and Jasper.

Notes

At Quantcast we strive to deliver the most accurate data possible, but we ask that you consider the following in respect of the analysis contained in this report.

While Quantcast has massive Internet visibility (over 200 billion media consumption events each month), we're only able to analyze data relating to web properties that have chosen to join our free Quantified Publisher program. While this program includes millions of distinct web destinations it does not include every site, and therefore may contain biases specific to the sites who do participate.

Historically our service has been primarily focused on U.S. audiences, therefore the margins of error in our data are likely higher for other regions, and potentially more so for non English speaking countries.

Measuring the mobile Internet is hard, loss rates for measurement pixels differ across the various platforms and the use of user agents for identifying vendors, models, operating systems and browser software is complex.

See http://en.wikipedia.org/wiki/Usage_share_of_web_browsers#Accuracy.

Questions/Comments?

If you have any questions, suggestions, observations or just want to find out more about Quantcast, please let us know at mobile@quantcast.com.