



Tuck School of Business  
at Dartmouth

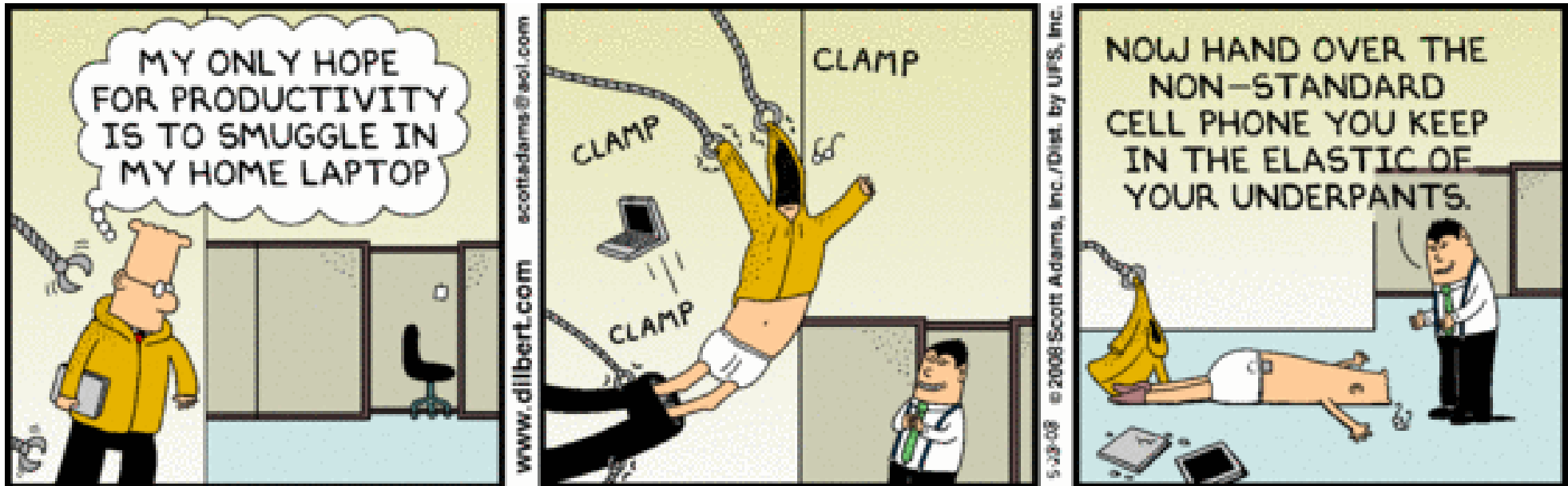
# Consumerization of IT

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**MBA Fellow Project**  
**Center for Digital Strategies**  
**5 May 2011**

# Agenda

- What is consumerization of IT?
- What's the hype? And why now?
- Media tablets in the enterprise

# Is this your approach to consumerization?



# What is the consumerization of IT?

## **Definition:**

“The specific impact that consumer-originated technologies can have on enterprises;  
Reflects how enterprises will be affected by, and can take advantage of, new technologies and models that originate and develop in the consumer space, rather than in the enterprise IT sector”

Source(s): Gartner, 2010

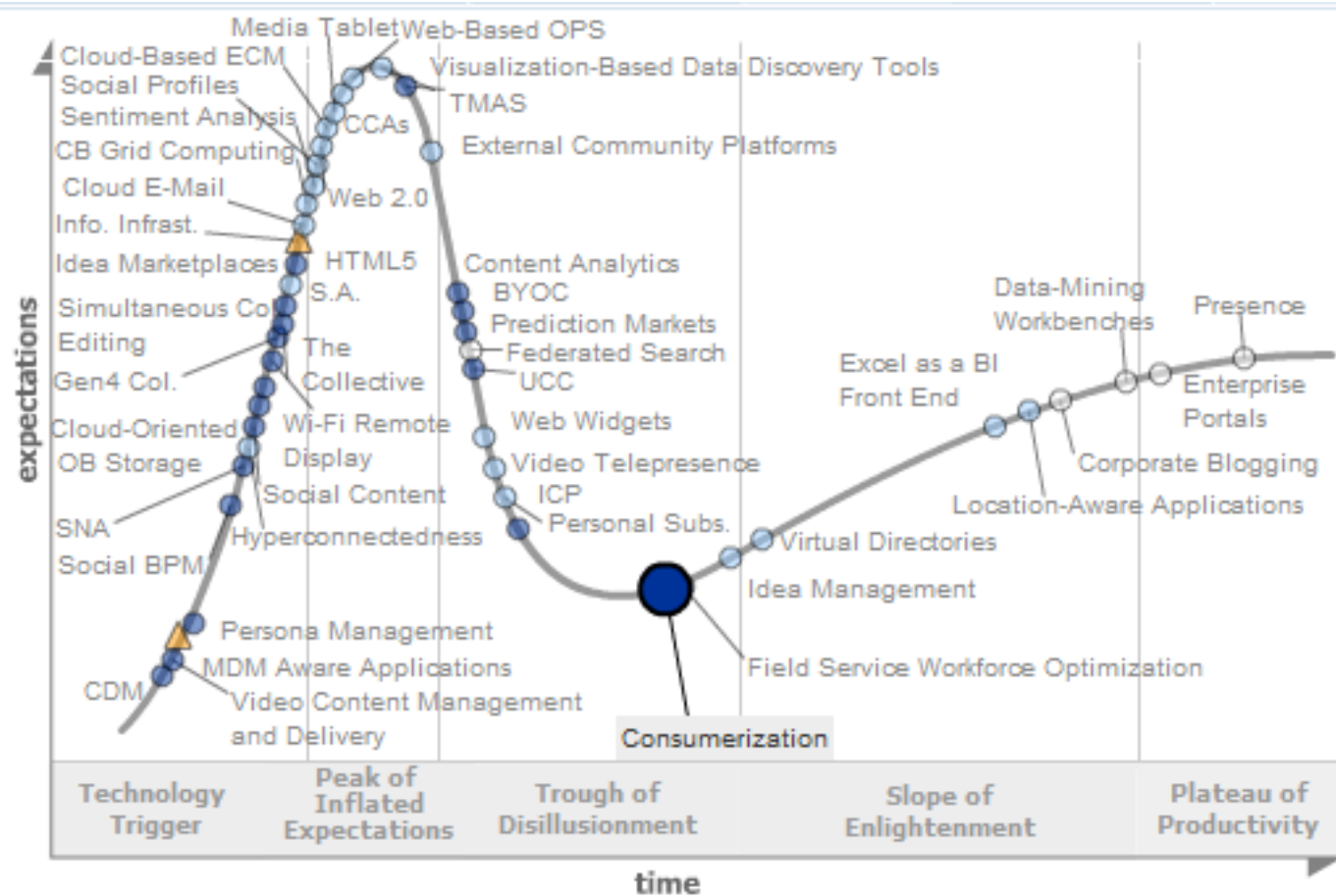
# Shifting focus of the market

"Consumers today are the No. 1 users of semiconductors; they passed over IT and government in 2004. That's a big change; prior to that period, most people developing silicon in the industry were focused on the main market--the enterprise and IT. Today, most of us are focused on the consumer market as drivers."

- *Intel CEO Paul Otellini, November 2007*

# Gartner Hype Cycle: High-Performance Workplace

- Gartner believes it will take 5-10 years for consumerization to reach its potential in the workplace
- Note that many SaaS trends are nearing the “Peak of Inflated Expectations,” but are expected to reach their potential in 2-5 years.



Source(s): Gartner, 2010

# What makes consumerization possible?

- Consumer-driven IT innovation
- Consumer market scale and lower business margins
- Smarter workforce
- Reliable global network
- Introduction of infrastructure variable cost services
- Development of free services model
- Global 3rd party service providers
- Lower switching costs

Source(s): <http://simplybetterit.com>

# Consumerization challenges CIO's, but offers opportunity for start-ups

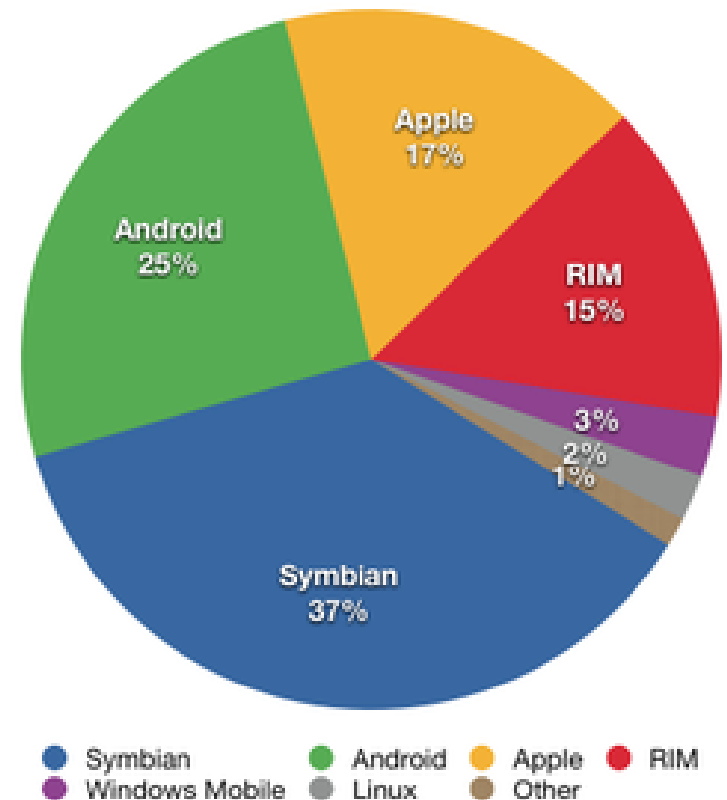
“A growing range of consumer applications and services for consumer devices (such as Dropbox) with viral adoption potential are **challenging established systems and security approaches**, and require attention, not only for limiting possible exposures, but also for **identifying new efficient and economic mechanisms** to support collaboration for the mobile workforce.”

Source(s): Gartner, 2011

# Trend: Device-agnostic solutions

- The market share of smartphone operating systems remains fragmented, with Symbian at 37%, Android at 25%, Apple at 17%, and RIM at 15%
- IT departments are realizing the value of device-agnostic solutions as consumerization moves into the enterprise

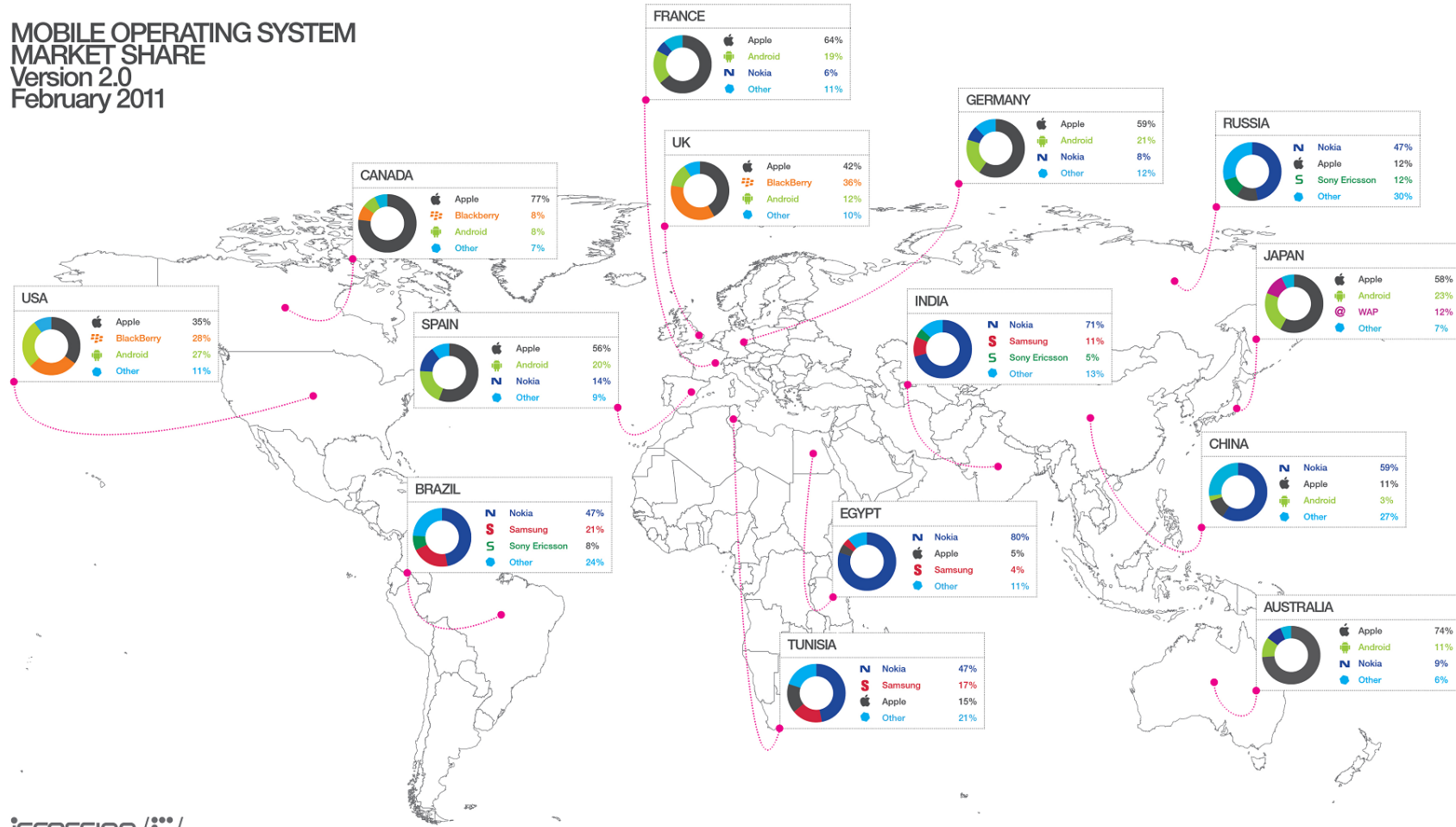
**Gartner Q2 2010: Share of Smartphone Sales to End User By OS**



Source(s): Gartner

# Fragmentation in mobile OS market share drives device-agnostic app development

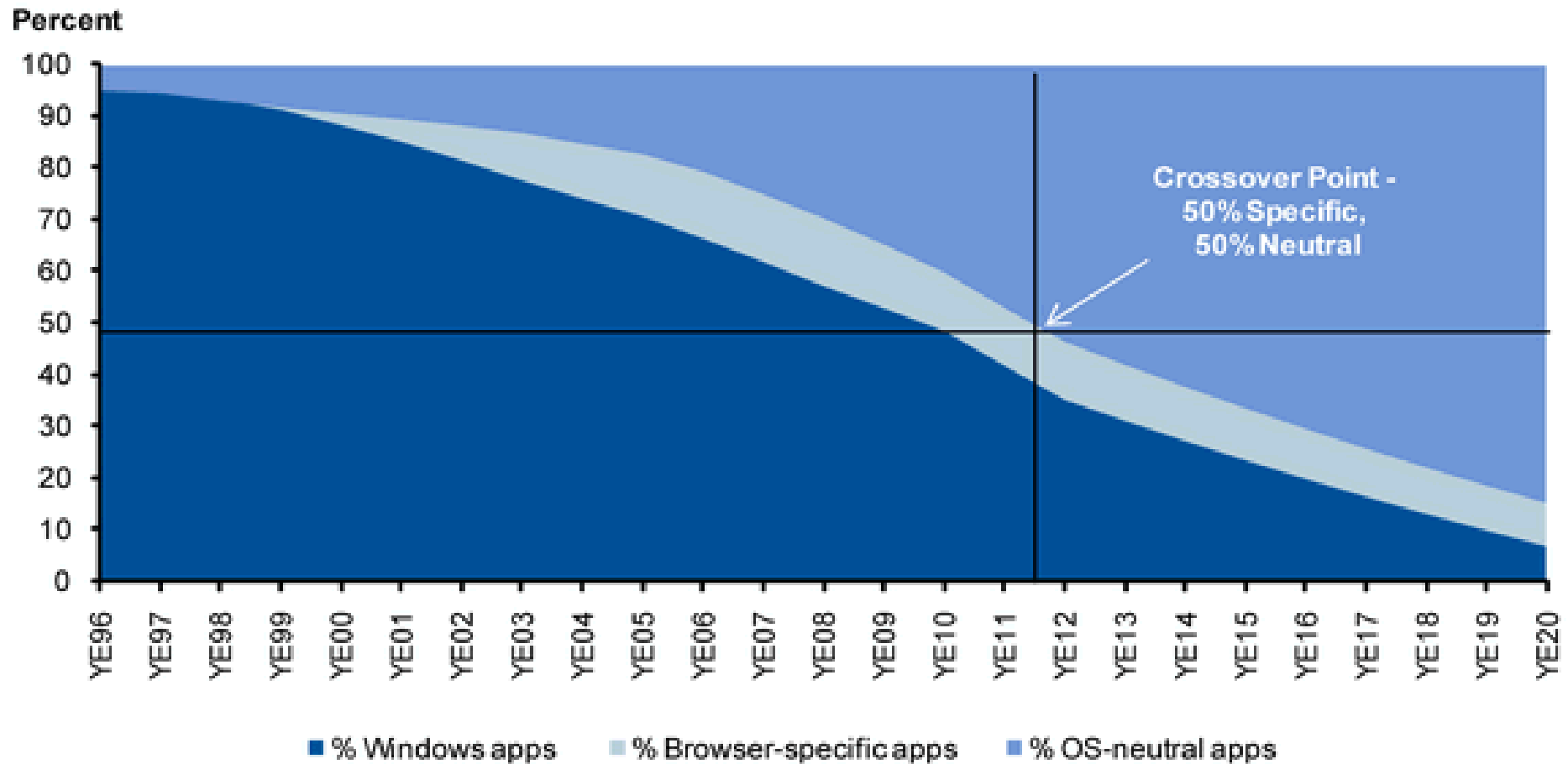
MOBILE OPERATING SYSTEM  
MARKET SHARE  
Version 2.0  
February 2011



icrossing /::/

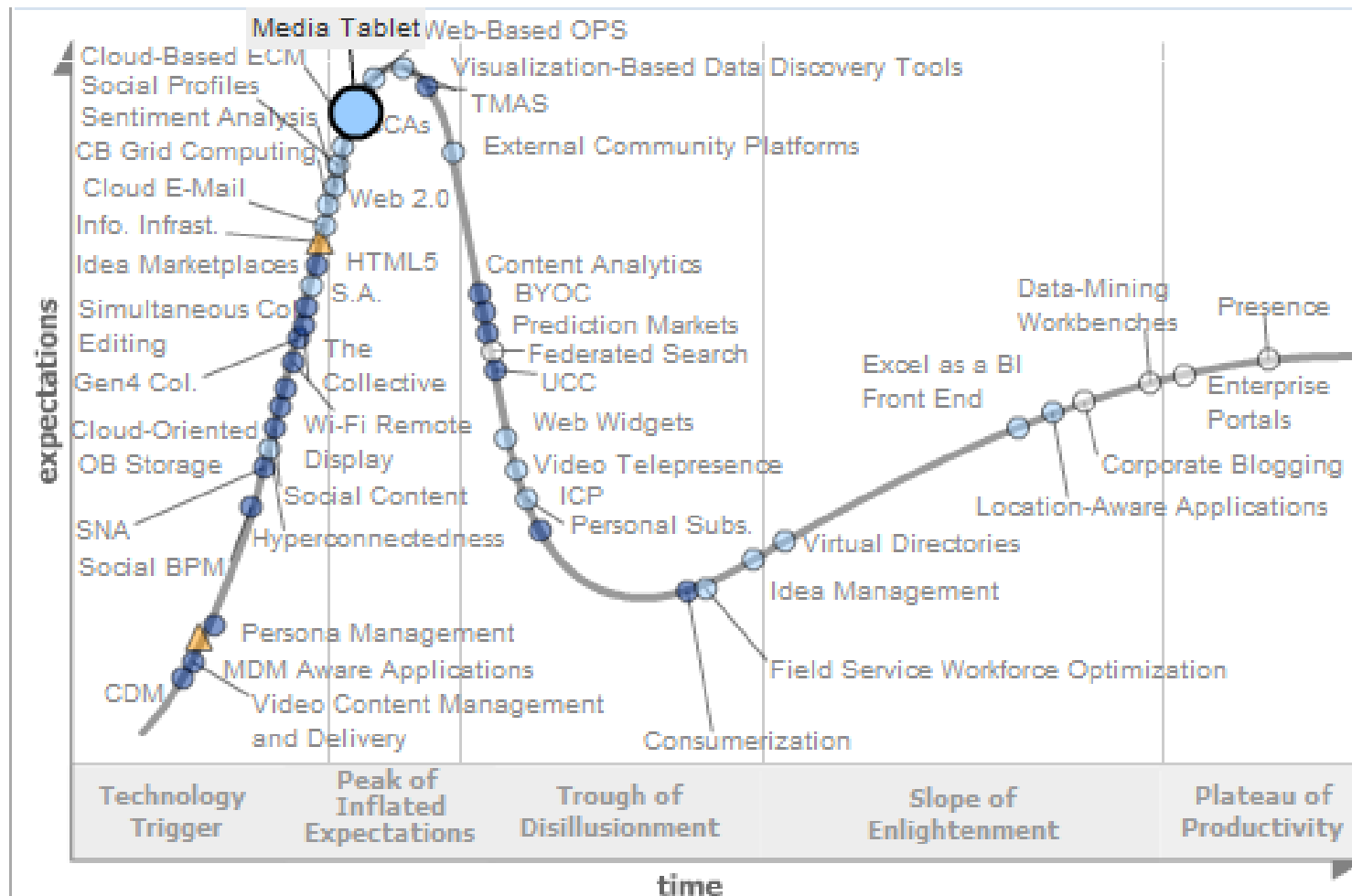
Data Source: <http://gs.statcounter.com/>  
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# OS-neutral applications are predicted overtake Windows applications in 2012



Source(s): Gartner, 2010

# The media tablet hype is at a peak, but tablets will reach productivity in 2-5 years



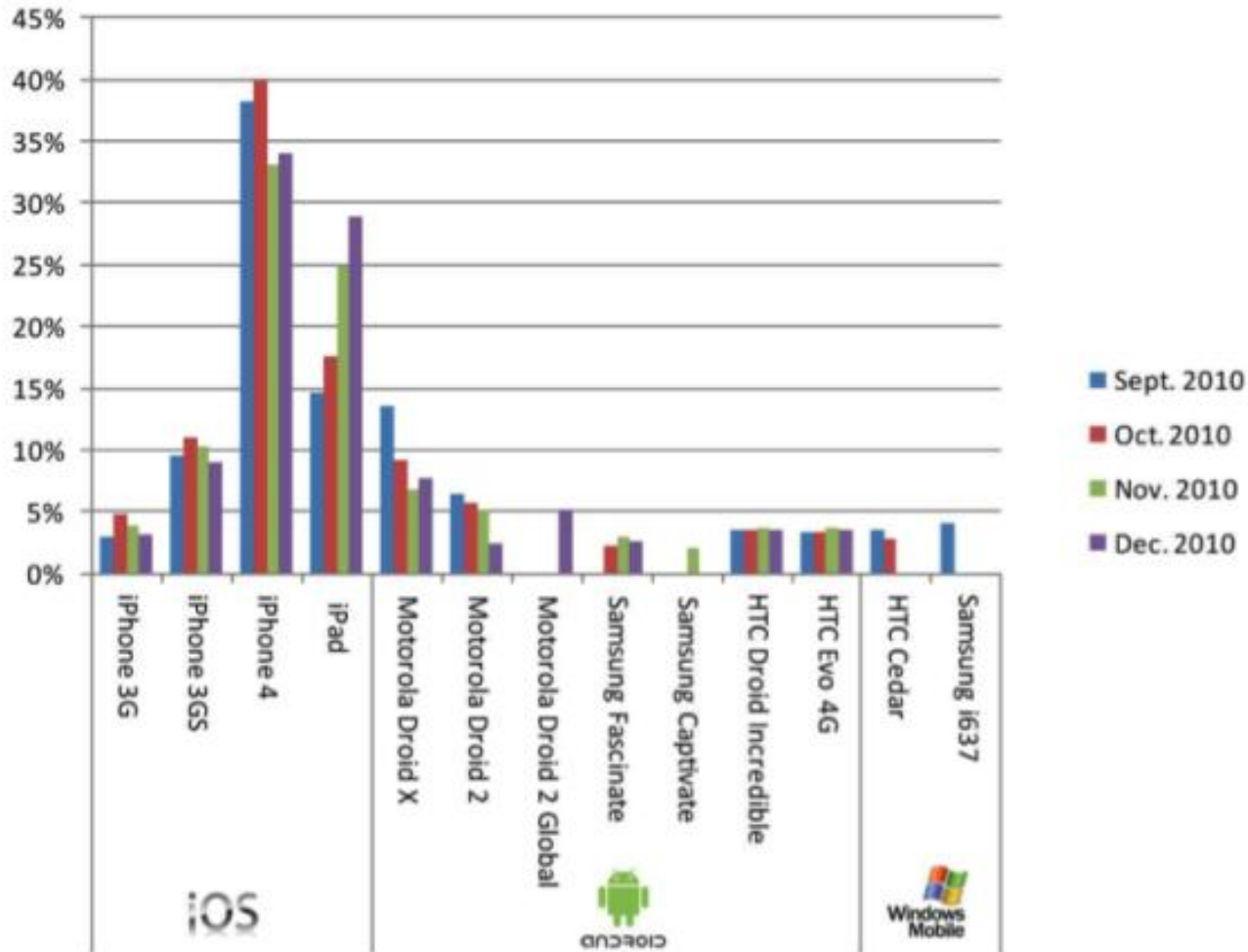
**Plateau will be reached:**

○ less than 2 years   ● 2 to 5 years   ● 5 to 10 years   ▲ more than 10 years

# iOS dominates late 2010 enterprise activations on Good Technology solutions



Top 10 new device activations by platform, September through December, 2010



# Media tablets are not laptops

## Advantages

- Instant activation
- Long battery life
- Responsive & inviting touch screens

## Disadvantages

- No keyboard
- Not good for data entry or content creation

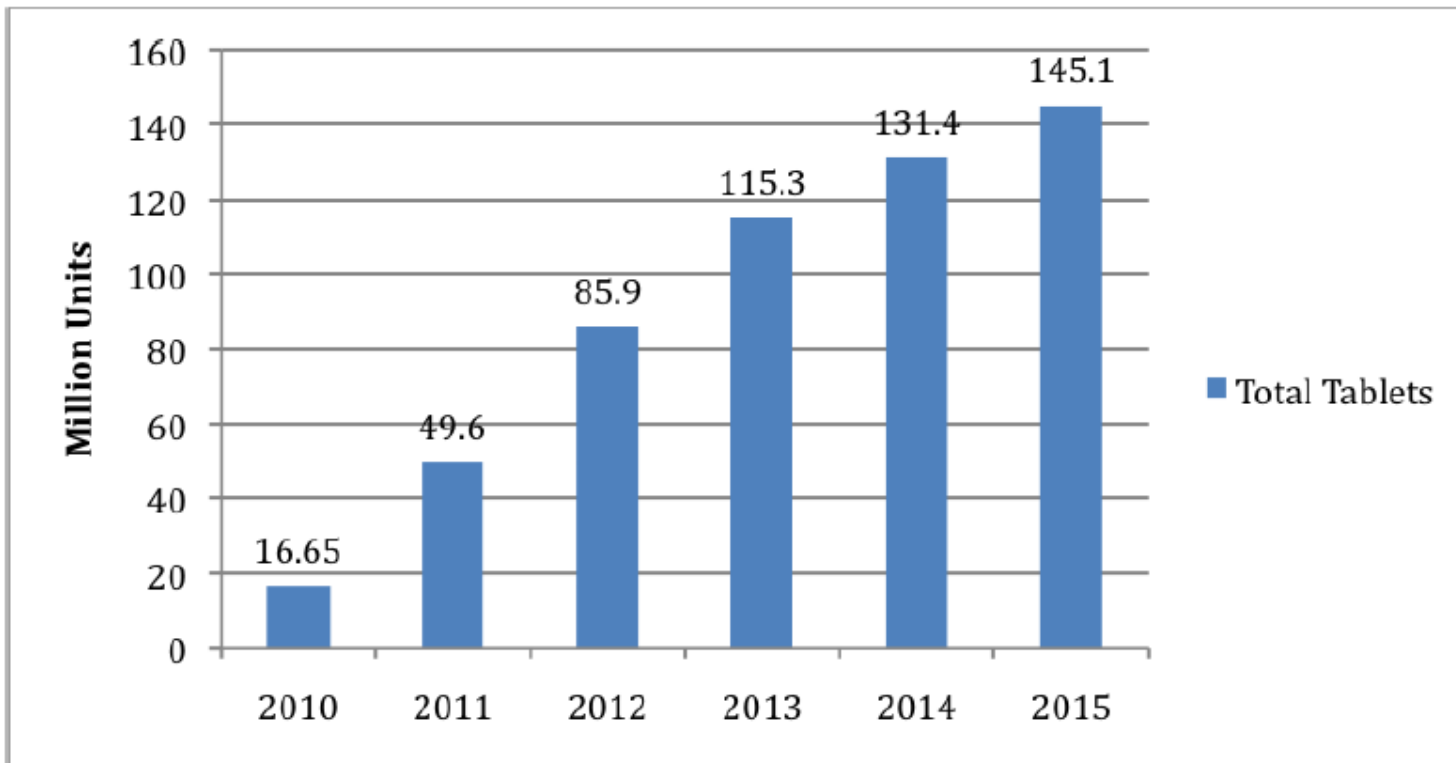
## When a tablet makes sense...

- Travel supplement to a PC that is used in the evenings for content creation
- Conversations with clients (e.g. sales, healthcare)
- Customer use with little training (e.g. conference surveys)

Source(s): Gartner, 2011

# Tablets expected to reach 145M in 2015

Figure 1: Forecasted Tablet Unit Shipments, 2010-2015

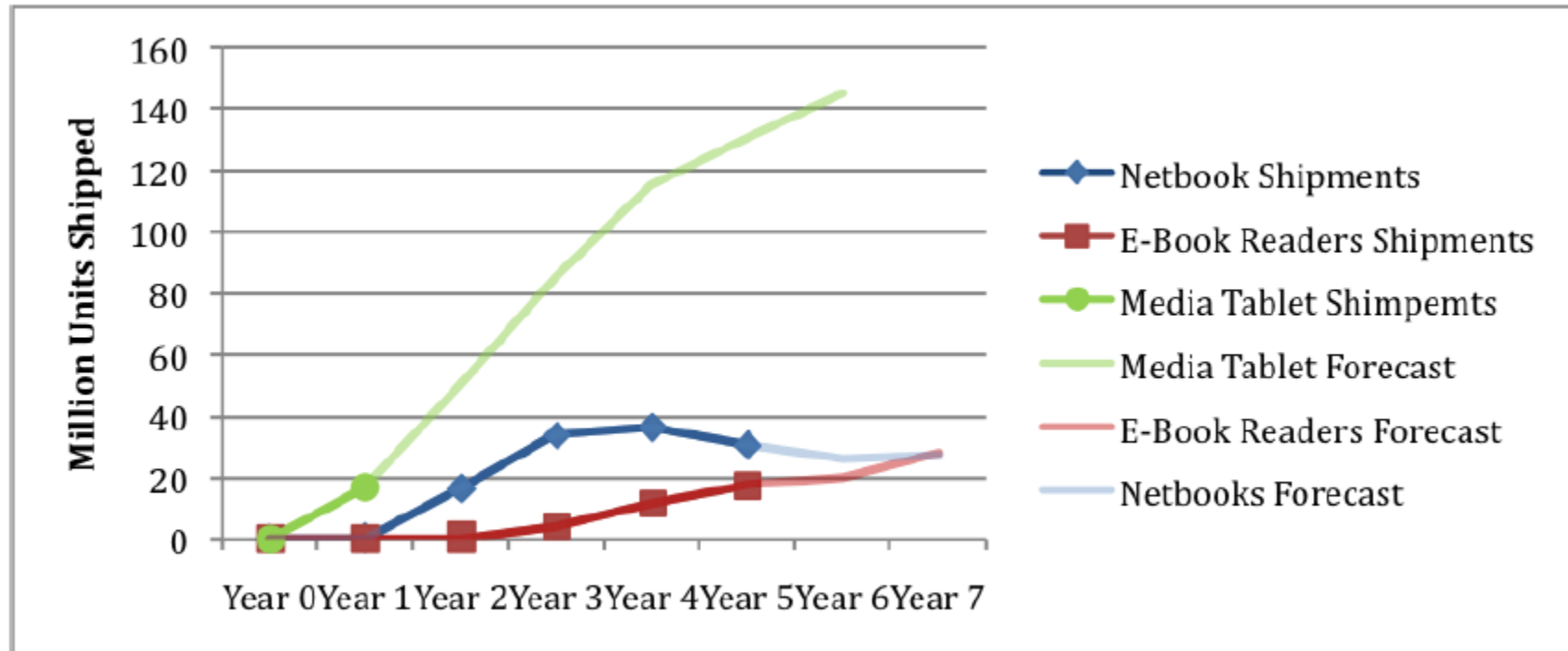


Source: Smith's Point Analytics/GigaOM Pro

Source(s): GigaOm – "A Media Tablet Forecast, 2011-2015"

# Analysts predict media tablets to exceed unit sales of netbooks & e-book readers

Figure 3: Device Shipment Growth Comparison

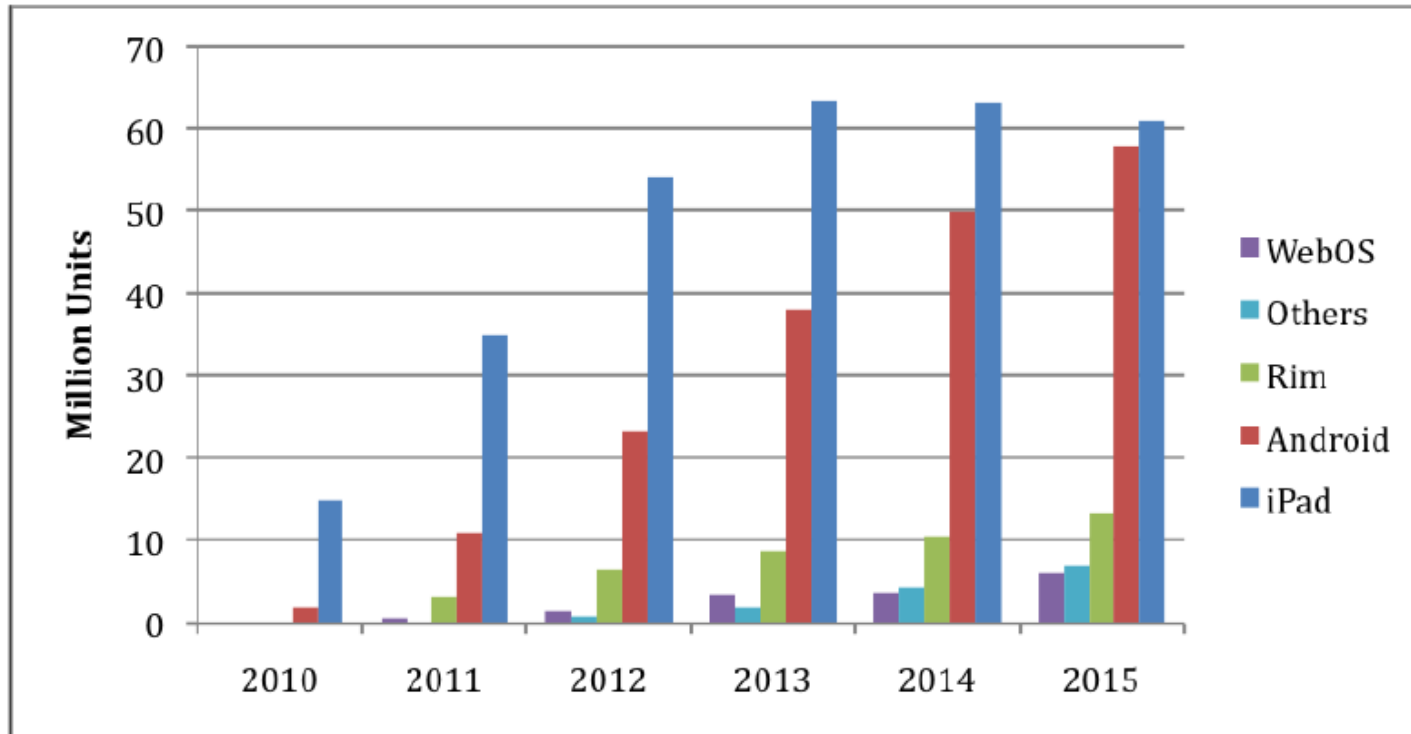


Source: Smith's Point Analytics, IDC, ABI, Display Research, DRAM Exchange

Source(s): GigaOm – "A Media Tablet Forecast, 2011-2015"

# Apple is predicted to continue to dominate the media tablet OS segment

Figure 8: Media Tablet Unit Shipment Forecasts Segmented by Operating System, 2010 – 2015



Source: Smith's Point Analytics/GigaOM Pro

Source(s): GigaOm – "A Media Tablet Forecast, 2011-2015"

# The iPad has brought (pushed?) Apple into the enterprise

The screenshot shows the Apple Support website for iPad Enterprise. The browser address bar displays "Apple - Support - iPad - Enterprise". The navigation menu includes links for Store, Mac, iPod, iPhone, iPad, iTunes, and Support. The main heading is "iPad Support". On the left, a sidebar lists various support topics: Welcome, Get Started, Basics, Wi-Fi, 3G, Syncing, FaceTime, and Mail. The main content area is titled "Enterprise" and features three sections: "iOS 4 Enterprise Deployment Resources" (with a book icon), "iOS 3 Enterprise Deployment Resources" (with a book icon), and "iPad Discussions - Enterprise" (with a speech bubble icon). Below these is a "Downloads" section.

Source(s): <http://www.apple.com/support/ipad/enterprise/>

# New security features have increased Apple enterprise adoption

"Today, over 80% of the Fortune 100 are already deploying or piloting iPad, up from 65% in the September quarter. Some recent examples include JPMorgan Chase, Cardinal Health, Wells Fargo, Archer Daniels Midland, Sears Holdings and DuPont."

- Apple CFO Peter Oppenheimer

Source(s): NetworkWorld - "iPads storm the enterprise" 2/14/2011

# APPENDIX

# Recent headlines

- Events in early 2010 indicate consumerization is becoming a factor in IT strategy:
  - Google censorship in China
  - Samsung becomes largest technology company in the world
  - Apple becomes a major factor in corporate IT (iPad; iPhone)
- According to Gartner, end users will become more influential in the front-end and user-related IT by 2015
  - Users will demand improved access to information, more collaboration, convergence of private and business (working hours, devices, etc.), and increased mobility
- Tensions are expected to increase between business expectation for more value and traditional IT providers ability to provide value at the price demanded

Source(s): Gartner, 2010

# What are companies are doing?

- BP has been investigating and implementing consumerization for 4 years  
(<http://simplybetterit.com/aboutus.aspx>)
- Early iPhone adopter Kraft Foods...announced a “Bring Your Own Device (BYOD)” policy that opened the door to “Bring Your Own Computer (BYOC).”  
(<http://gigaom.com/2010/08/31/how-new-business-strategies-are-creating-an-enterprise-grade-app-deluge/>)

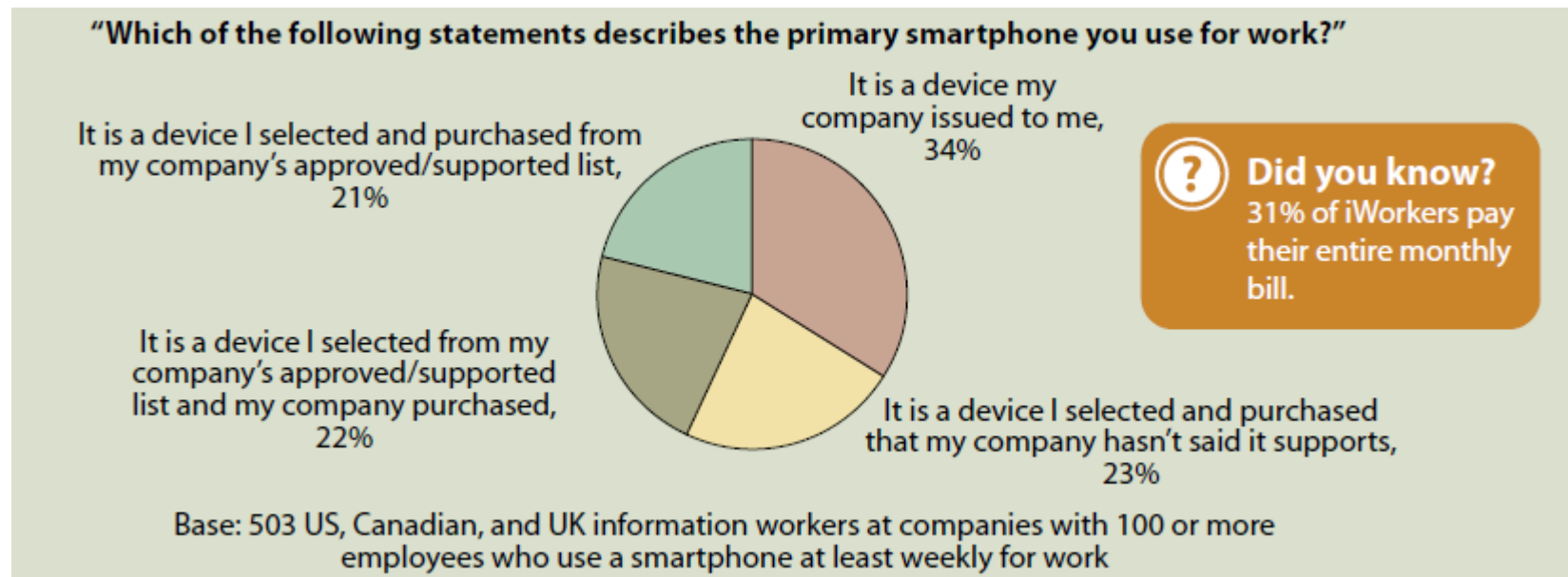
# Trend: User demand for consumerization

- Enterprise users are demanding the level of usability they see in the consumer market from their corporate IT departments
- “Digital Natives” are intolerant of poor technology capabilities at work
- Telecommuting and access to information anywhere is blurring the line between personal and professional
- Employee retention will push companies to begin to embrace consumerization

Source(s): Forrester, 2010, <http://www.ctoedge.com/content/forces-behind-and-against-consumerization-enterprise>

# Trend: Approved and supported devices

23% of information workers surveyed by Forrester report that the device they are using is not officially approved or supported by their companies



Source(s): Forrester, 2010

# Trend: Use of consumer web services

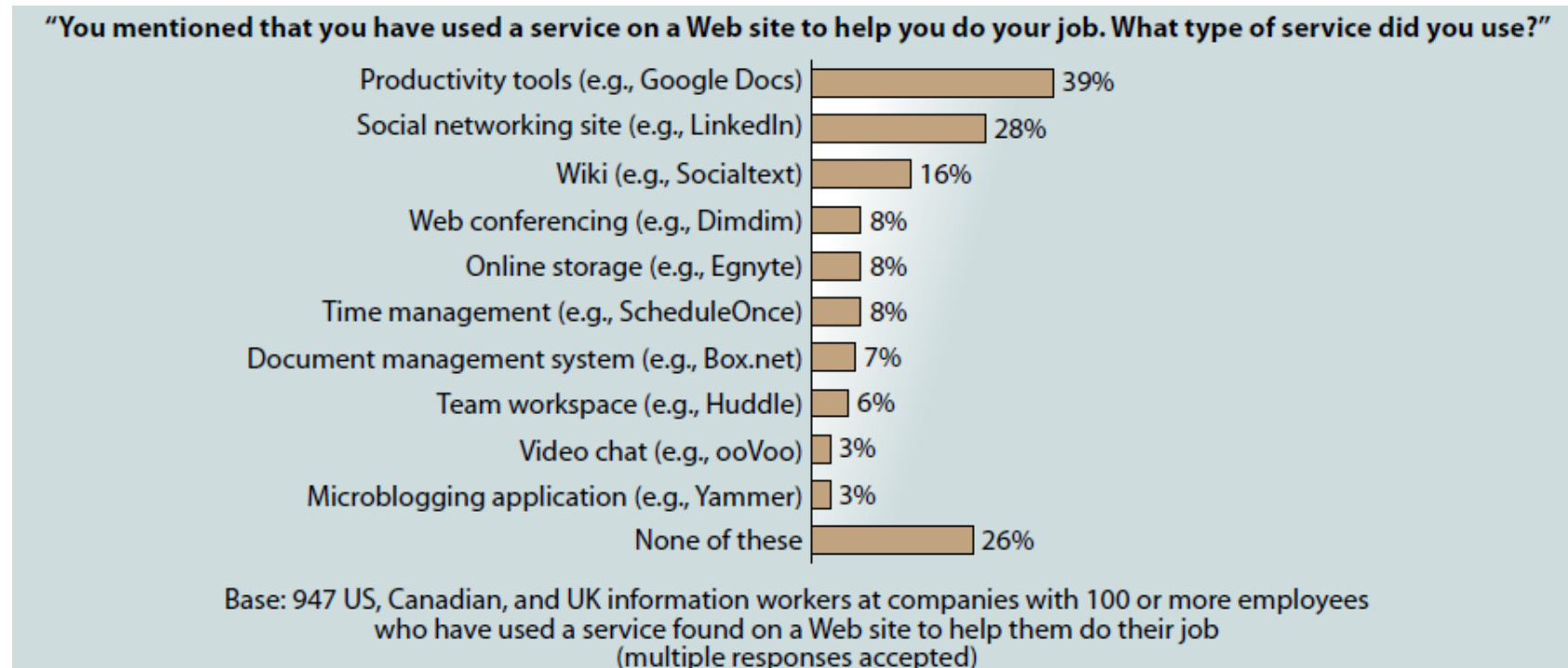
24% of information workers surveyed have gone to the web for a service to help them do their job



Source(s): Forrester, 2010

# Trend: Use of consumer web services

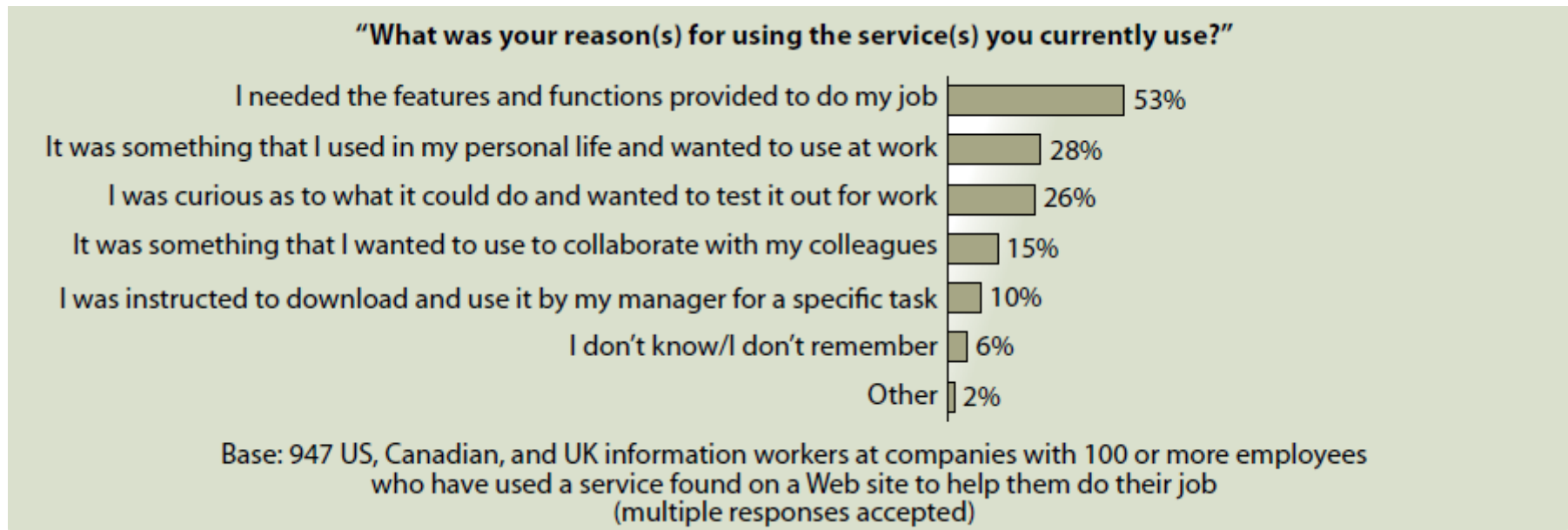
Productivity sites and social networking are among the most used web services



Source(s): Forrester, 2010

# Trend: Use of consumer web services

Workers reported that more than 50% of the time, they use the web service because they needed it to perform the functions of their job



Source(s): Forrester, 2010

# Trend: Importance of policy management

- Assess the risks associated with consumerization
- Set clear policies based on functional roles and needs
- Policies need to be reviewed regularly and evolve over time
- Develop contingency plans
- Communicate your policies and train users on acceptable use of consumer devices and services

Source(s): IDC, 2010

# Trend: Concerns about security

- Categorizing the threats:
  - Threats from consumer applications, often websites accessed from company-owned devices
  - Threats from consumer devices connecting to the corporate network
- Governance: If devices are not company-owned, audit and compliance are difficult to conduct and enforce
- E-discovery: Legally, how does the company retrieve data from an employee-owned device?
- Control of data: Enforcement of configurations, monitoring, and software updates

<http://www.windowsecurity.com/articles/Setting-Effective-Security-Policies-Consumerized-IT-Environment.html>  
Microsoft: Consumerization and Security Whitepaper

# Trend: Concerns about security

- Enterprise IT security teams indicate that more of them are concerned about the use of smartphones (46%) than are concerned about cloud computing (37%) or data center virtualization (34%)

## Security Solutions

- Mobile device security methods:
  - Device-level encryption
  - Network application data sync protection
  - Remote data wiping
- Cisco and McAfee have recently released suite of products in to meet some of these needs

<http://www.zdnet.com/blog/btl/ciscos-security-lineup-aims-to-support-it-consumerization/31266?tag=rbxccnbzd1>

# Trend: Smartphone management tools

- Smartphone management vendors are offering solutions to manage a workforce using smartphones on a variety of operating system platforms
- Features of these tools include:
  - Configuration management
  - Software management
  - Security management
  - Central consoles
  - Asset management and reporting
  - Over-The-Air (OTA) intelligence, troubleshooting, and support
  - Scalability
  - Device recovery \*
  - Remote control \*
  - Self-service portals \*

\* Emerging features that will soon be default expectations

Source(s): Forrester, 2010

# Trend: Smartphone management tools

- Incumbent offerings:
  - Microsoft, RIM, Sybase, Good Technology
  - Leaders for multi-platform are Sybase and Good Technology
- New entrants:
  - BoxTone, MobileIron, Trust Digital, Zenprise
  - Forrester recommends for the vendor shortlist when considering multi-platform offerings
- “Best-of-Breed” vendors:
  - AirWatch, Motorola, SOTI, Wavelink
- Service providers:
  - Fiberlink, Mformation, Perlego, most tier-one mobile service providers

Source(s): Forrester, 2010