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# Device and Platform Prioritization

**A Methodology for Determining Which Tablet or Mobile Platforms to Prioritize When Seeking to Monetize Content Through New Channels**

# Publishing to Tablets and Mobile: Device and Platform Prioritization

*There is a growing number of tablet and mobile operating systems and platforms coming to market. However, despite the adoption of some standards, they have differences that force publishers to manage multiple development tracks for the same products or content. Which should a publisher or content provider prioritize? Moreover, how is that priority determined? This white paper describes a process for consideration that will help business leaders determine the right approach to prioritization. It is designed to be read in conjunction with Innodata's white paper on Mobility Development Strategy.*

## Abstract

While Apple dominates the sales of tablet devices and is forecast to be the largest retailer of tablets through 2015, the need to consider a strategy to adopt different platforms and devices is important for a publisher or content provider. In this white paper, we will look at the forecasted sales of tablet devices with different technologies, operating systems and standards and provide an approach to determining which platforms to prioritize. To provide a framework for decision-making, we will pose four key questions and seek to prioritize the responses in a given situation to arrive at the right approach:

1. How does market share of devices and operating systems determine the prioritization of digital product development?

2. How important is the reach into consumer markets of each platform manufacturer and their online stores?

3. What enablers in your current content production technology can you identify?

4. What is the relationship with your mobility development strategy?

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# Introduction

The number of tablet and mobile devices is growing rapidly, supported by four main operating systems (OS). See the table below:

| Operating System | Illustration | Availability | Leading Devices |
|---|---|---|---|
| Apple iOS | | Apple and leading retailers | iPad / 2 / 3 |
| Google Android | | Market Place for Android<br>Amazon Appstore for Android | Samsung Galaxy Tab<br>Motorola XOOM<br>Assus Eee Pad<br>Acer Iconia Tab<br>Sony Tablet S<br>Toshiba Thrive |
| Blackberry Tablet OS | | Blackberry App World | Blackberry Playbook |
| Windows 8 | | Windows Marketplace | 2012? |

In addition, in 2011 there was the HP TouchPad running HP's WebOS software. However, that was discontinued shortly after launch and while HP says it is committed to tablets, its strategy remains to be seen.

Understanding each of the devices and their OS platform is important to aid decision making concerning which tablet channel (or all) to adopt with digital product development. Of course, you could choose to distribute unsecured PDF documents to achieve ubiquity across platforms and devices. However, in this white paper we will assume that is not the preferred option — because PDF offers little to a consumer over reading on a PC, it is unsecure unless wrapped with proprietary DRM and it does not offer the interactivity or make use of the operating systems and the features they provide. In this white paper, we will define a channel as either an OS standard or a particular manufacturer and device itself.

Why is it important to understand the platforms and their operating systems? The reasons are that:

- Each new channel / device / operating system presents differences that need to be managed, including the development of apps or other digital products, features within the products themselves and other differences such as (more recently) Apple's high resolution display and how images are formatted.

- The approach to encoding digital products using each OS or a common framework like HTML5 will largely determine the cost, effort and investment required to reach consumers across devices.

- The market itself may currently provide the lead on device and platform prioritization. There are clear leaders and laggards at this time, although that may change with the forecasted introduction of Windows 8 based tablets in 2012.

# Operating Systems Overview

### Apple iOS

iOS is the most closed of all the operating systems, yet the one with the most consistent look and feel. However, iOS may also be the easiest to develop for due to is mature support and documentation. Developing digital products for Apple devices means that there are no forks in the road and no difficult decisions to make about which device to target and the nuances between them, since there are few hardware related differences in Apple supported devices. An example of standardization is that all content can be designed to be read in the same 4:3 aspect ratio iPad screen across versions of the Apple tablet, (ideal, convenient, advantageous) for publishers seeking a common look and feel to their products.

The downside of distributing content through Apple can be the revenue share model imposed by Apple. However, the counter-point is that Apple's market share and reach could be the very channel to finding those desperately needed new digital customers.

### Google Android

The key difference between iOS and Android is that the latter is open source and is in widespread use by nearly every tablet manufacturer without their own operating system. While in the tablet market, iOS beats Android in number of devices sold by 4:1. In the smart phone market, Android has more than 50% market share versus Apple's 15% market share (according to Gartner, November 2011). Many forecasters suggest that where tablets are concerned, Android will begin to approach iOS's share of the market within the next three to four years.

Android continues to be developed with the latest version, Ice Cream Sandwich, and the last, Honeycomb, representing a major focus on tablets, whereas previous versions were derivatives of the smart phone OS.

Android's major fallback is that different devices and different versions of the OS behave differently. Therefore each version requires a separate but related content product development track. Further, there are a wide variety of aspect ratios with Android devices (4:3, 16:9, 16:10 so far) that make it harder to develop a consistent look and feel across all Android-based tablets and mobile devices. Unlike iOS, there isn't just one development track, but many.

### Windows 7 (and 8)

While Microsoft was the first major tech company to promote tablet-like features with early touchscreen laptop support, it has been slow to develop an OS that is competitive on tablets and mobile devices (with just 1.5% of the market in Q3 2011 according to Gartner). Windows 7 is an abridged version of the desktop operating system and is reported to be very resource and battery-heavy on tablets. However, reports are that Windows 8 will address these problems.

Windows 8 is being previewed currently, but we'll have to wait until later in 2012 to see which manufacturer adopts it and how content-based products can be developed for it. Reportedly, EPUB-compatible readers for Windows 8 are already planned.

### Blackberry Tablet OS

Unfortunately for Blackberry, its tablet offering has not been widely adopted and few, if any, publishers or content producers are developing digital content-based products for it. While it remains important in the smart phone arena, we will not give much further attention to Blackberry in this paper.

## High Level Solution

Innodata's approach to determining which platform OS's and devices to prioritize for tablet and mobile digital content products takes a five step decision-making approach:

1. Consider the market share and forecasts of the different operating systems and their reach into your target customer markets. Use this information to focus priorities.

2. Consider customer reach: with large and active stores for apps and digital content, does one or more channel offer reach to consumers that you could not deliver yourself? Could you go it alone?

3. Determine how your existing content production technology connects you to one or more tablet and mobile channels. How seamless is it to develop digital products?

4. Consider your mobility development strategy in parallel — if you decide only to develop for iOS, then that largely dictates your device and platform strategy. However, if you take a cross-platform approach using HTML5 for example, then you broaden your potential reach.

5. Give relative priorities or weighting to the outcome of each of the four steps above to achieve a decision on prioritization — starting in one place and moving on to the next is a frequent (and perfectly reasonable) outcome.

# Solution Details

In this section we'll guide you through the steps in more detail.

### Step 1: Consider Market Share
One way to focus priorities is to recognize that iOS and Android are likely to be dominant through the foreseeable future. Unless a disruptive force emerges (and maybe Windows 8 will be just that), you will be wise to let these forecasts dictate priorities — it is not for nothing that many have decided to focus on iOS and Apple first, Android next and then wait and see how the market develops:
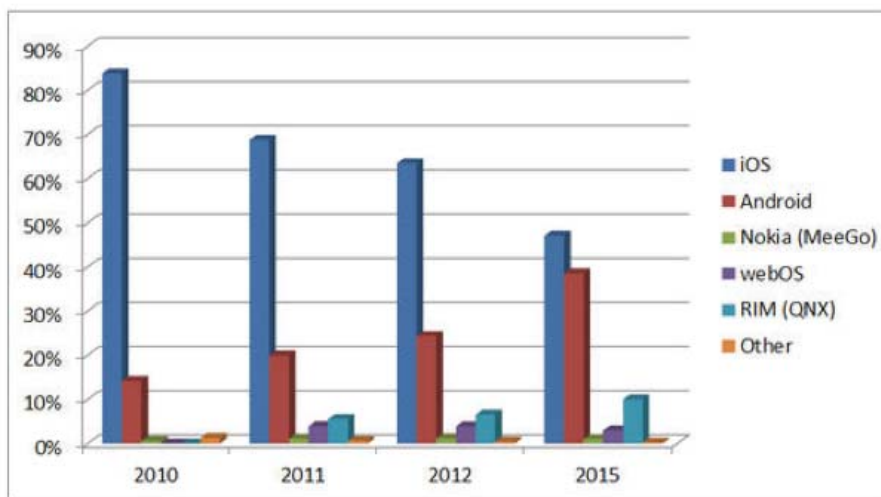


Current and Predicted Worldwide Sales of Media Tablets
Source: Gartner (April 2011)

*Figure 1: Forecast market share between tablet OS (excluding smart phones)*

The market share for non-iOS and Android systems is low and until they develop further, and are adopted by consumers with compatible devices, it is not yet certain that these or any others will make an impact. Again, the one caveat here is Microsoft.

### Step 2: Consider Customer Reach
There are many statistics around the adoption of tablets, consumption of content and the monetization of that content, such as:

- Due to the number of devices sold and differences in consumer behavior, Apple stores sell six times the number of the same top 200 digital products as Android stores, including smart phones and tablets where Android has the lead (according to analysis firm Distino).

- That Apple customers buy more than Android customers is sometimes put down to the ease of Apple's purchasing system, compared to using Google Checkout for Android purchases, as well as commonality and transportability across Apple devices.

- Google, Amazon, Verizon (rumored) and others have their own stores selling the same Android products. With Apple there is only one globally; the user experience is important, which leads to great stickiness.

- Apple has launched iBookstores in 32 countries alongside its iPad releases. Consider that the Android based Kindle Fire, launched in September 2011 is still not available outside the US.

If you have to prioritize, it is worth considering the numbers in terms of reach and behavior, as well as future forecast sales.

### Step 3: Consider Cost of Delivery of Digital Content

Developing content for each platform and device is complex and costly — especially when it comes to including advanced interactivity in content-based products or services (such as can be found in Inkling's interactive textbook platform). Achieving multichannel distribution is a worthwhile goal, but is it feasible to acquire the skills, processes, technology and manage multiple variants of the same content to do that all at the same time? Publishers will know that the common e-book development and distribution nirvana is still a long way away after facing the emergence of different platform releases and the need to reconvert content each time.

### Step 4: Look at Your Existing Technology Enablers

Another way to consider how to prioritize is to consider how you might get content into digital products for distribution on tablet and mobile devices. If you use either an InDesign or QuarkXPress based technology platform or workflow for product layout, then there are third party technologies out there that promise the relatively easy ability to develop tablet-ready products for iOS. Newer to the game are technologies like Adobe Air that work alongside InDesign (or Creative Suite) to develop content for Android distribution too. If you use another content production or management technology, it is worth investigating the ease or complexity of outputting or producing content for tablet and mobile. Having XML is a great start, but the XML you output from a writing process may not have the metadata required for downstream distribution, or the design you might want for a tablet experience.

### Step 5: Consider Your Likely Mobility Development Strategy

When introducing the different operating systems and the platforms they support (see above), one other dimension of thinking which covers mobility development strategy is relevant. There is more than one approach here, briefly summarized as:

- Native app / OS development — development in the platform environment using either iOS or Android or other.

- Hybrid development — created using a combination of the native OS as well as languages of the web like HTML and CSS.

- HTML5 — a means to encode digital products that supports cross device and platform compatibility.

If the approach is to work in an HTML5 environment, then this may or may not answer the question on prioritization of device and platform. Companies like *The Financial Times* have moved from native apps (those sold via the Apple Appstore for example) to HTML5 products, which can be sold directly by the FT and designed to run on any OS. However, it's not that simple without large scale resources and a lot of development experience, so some work with HTML5 while still developing their understanding of it by moving from one platform to the next (i.e. still prioritizing based on other factors).

***Additional Step: Weigh the Output of Each Step***
Only you can determine the weighting of each of the above steps in decision-making and it is a worthwhile step to do. Rank them from 1 through 4 and see what comes out on top for you or use a weighting factor to analyze and objectify more granular detail, then use those at the top of the output to guide you.

# Business Benefits

We recently met a customer who, when faced with the decision to prioritize what platform to develop their content in, made an easy decision... "We'll give everyone iPads," they said! The reality for publishers and content producers seeking to reach their end consumers is that you cannot dictate what device they buy. So we recommend that you follow the decision-making steps described here to achieve a smart decision (and one in which adoption of each platform and device is prioritized over time), cost management and reduced complexity, while reaching the maximum available audience.

# Summary

Developing an overall mobile content development strategy — which accounts for how you will enable cross-platform compatibility — is a function of determining which tablet and mobile devices and platforms to prioritize. Elements to be considered include: device/platform market share, audience reach and internal capability to support selected channels. Apple, Android, Blackberry and Windows all offer compelling attributes worthy of consideration. However, the attributed and limitations of each must be weighed against business goals. Understanding current and future trends in market digital adoption and device/platform capabilities will enhance your chances of prioritizing your resources appropriately and maximizing opportunities.

# More Information

For more information about Device and Platform Prioritization, please visit www.innodata.com, call us at 201-371-8000 or contact us at solutions@innodata.com.