The Digital Tablet Revolution, Enterprise Edition

By PG Bartlett

Tablets like the iPad are more than just lightweight personal computers or fancy media devices; they're the beginning of a new, highly mobile phase of digital engagement. Unlike media devices such as ebook readers and MP3 music players, tablets not only deliver the same content, they also beg for interaction and immersion.

The first few months after Apple started shipping the original iPad, skeptics argued that tablets have been done before and are just a temporary phenomenon. But since then, more than 100 tablets have been announced and Apple has already outdone itself by delivering the iPad 2, underscoring a new era in technology that publishers and companies cannot afford to ignore.

Just as ebooks, like Amazon's Kindle, have become significant and growing sources of revenue for book publishers, magazine publishers similarly hope that tablets like the iPad will open up new sources of revenue, perhaps even reversing the tendency for consumers to expect digital content to be freely available.

But tablets are touching all industries, not just consumer publishing. Every company wants to know how they can take advantage of the iPad and other devices to drive more revenue. This article is for "corporate publishers" whose main business is not publishing as such, but who want to reach their customers and employees through digital devices such as tablets and smartphones.

Your success will be measured by the degree of customer engagement you are able to achieve: how long can you maintain interest and how well can you promote interaction. If you excite and delight your customers, you will stand apart from the crowd. But if you merely transfer your existing print or web content to tablets, your audience will be unimpressed and your results will be unimpressive.

The key to customer engagement will be to take full advantage of the unique properties of digital devices. To gain a deeper understanding of the issues, it's helpful to look at history. We've seen this transition before, when the rush to the World Wide Web began.

In the early stages of the Web, your company's first website was likely "brochureware," which was created simply by repurposing existing print content. Many companies delivered the bare minimum by making most of their content available only in PDF format, which usually meant this content was inaccessible to searches and offered no hyperlink navigation. Over time, as companies listened to their customers and learned from the best practices of other websites, they transformed their PDF content to Web pages and then went beyond to add features that print does not support, such as interactive navigation, personalization and multimedia.

Similarly, digital devices will create unique opportunities for differentiating between print and web. You might be tempted to repurpose existing content for tablets, but you risk either delivering a "PDF experience" that underwhelms your audience or a "Web experience" that misses the point.

So how do digital devices differ from print and Web media? Consider the following table:

<table>
<thead>
<tr>
<th>Feature</th>
<th>Print</th>
<th>Web</th>
<th>Digital</th>
</tr>
</thead>
<tbody>
<tr>
<td>Layout</td>
<td>Rich</td>
<td>Restricted</td>
<td>Rich</td>
</tr>
<tr>
<td>Personalization</td>
<td>Rarely</td>
<td>Sometimes</td>
<td>Expected</td>
</tr>
<tr>
<td>Multimedia</td>
<td>None</td>
<td>Possible</td>
<td>Expected</td>
</tr>
<tr>
<td>Interactivity</td>
<td>None</td>
<td>Possible</td>
<td>Yes</td>
</tr>
<tr>
<td>Access to device features</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Capacity</td>
<td>Limited by weight</td>
<td>One page at a time</td>
<td>Limited by memory</td>
</tr>
<tr>
<td>Offline usage</td>
<td>Yes</td>
<td>Seldom</td>
<td>Yes</td>
</tr>
<tr>
<td>Touch on device</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Portability</td>
<td>Yes</td>
<td>Depends on device</td>
<td>Yes</td>
</tr>
</tbody>
</table>
Let’s examine each of these in detail:

**Layout:** creative professionals have long used tools such as QuarkXPress to design publications and advertisements. These tools provide an unlimited range of design options and absolute control over the position and color of every pixel on the page. In contrast, web designers have found themselves restricted to much simpler layout capabilities, with the primary advantage — sometimes abused — that each Web page can extend beyond the borders of the browser.

In contrast, devices like the iPad have vibrant, full-color screens that come close to the size of a typical printed page and have a known size. The predictability of display size is crucial because unlike computers, where screen real estate can vary widely, you can design for a tablet and know with certainty how your content will look to your readers. As a result, the best tablet apps take full advantage of these displays by delivering layouts that rival print in their richness of design.

Moreover, iPads can provide both multimedia and interactive three-dimensional views that give consumers a compelling way to explore products and facilities.

**Personalization:** Web sites, such as Amazon, are widely acclaimed for tailoring the experience to the user by presenting information that could be relevant based on past activity. For example, if you present product information, customers expect to be able to filter out irrelevancy so they can focus only on what’s important to them at the moment.

But for digital devices, personalization is just the starting point. To engage customers fully, you must go beyond personalization and provide rich, interactive, multimedia experiences. (But be careful not to take this too far; consumers will rebel against glitzy user interfaces that impede swift navigation and interaction.)

**Multimedia:** While websites and tablets offer similar capabilities for playing video and audio content, consumer expectations are different. Websites can get away with offering little or no multimedia content, but tablets are leading consumers to expect multimedia content as a natural part of every page. (An interesting challenge for printer and paper manufacturers is that tablets and smartphones are teaching consumers to live without hard copies.) Most companies have little or no capacity to create multimedia content, so you might be compelled to invest in resources that once seemed like a luxury.

**Interactivity:** The best web experiences today are highly interactive, where users can easily point and click their way through their activities. But this is the minimum expectation for apps on digital devices. For example, if your app presents a series of diagnostic steps where the outcome of a step can determine which step should be followed next, then the app should ask the user for the result of each step and present the correct next step automatically.

Another opportunity in the “interactive” category is real-time updates of business information. For example, sales reps could have access to the latest status of customer orders, production jobs, and parts inventory.

There are a couple of problems with interactive content on websites. First, many of these interactions are embodied in Flash, which Apple does not currently allow on the iPad. Flash applications must be converted into some combination of native Apple code (“Cocoa”) and HTML 5. And second, user interactions with websites can sometimes create noticeable lags. Apps have the advantage of light-
ning fast responses to user input, which makes the user experience more fluid and enjoyable.

ACCESS TO DEVICE FEATURES: Not only does the iPad know where it is on the planet, it also knows its orientation thanks to its internal accelerometer. But the only way to get access to such features is through an app. To enhance security, web pages have restricted access to built-in functionality of the device or other apps. You should consider useful ways to take advantage of location, position and other information that only an app can provide.

CAPACITY: Websites typically make available just one page at a time; each call for a new page adds a lag that can vary from imperceptible to downright irritating. One of the great advantages of both print and digital devices is that content is typically provided in its entirety, so that navigation is so fast that it’s unnoticeable.

One factor working against digital devices is the amount of download time and memory storage necessary for multimedia content. These factors impose a limit on the amount of multimedia content an app can reasonably include. The alternative is to stream multimedia content on demand, but that diminishes the responsiveness of the digital experience.

OFFLINE USAGE: Access to websites requires an active connection to the Internet, which can be slow or unavailable. Tablets let you take the content with you anywhere, even if no connection is available (but nothing beats print for access to content while your airplane is taking off or landing).

But when it comes to making content available offline, you’ll face the capacity problem that the previous paragraph describes.

ICON ON DEVICE: Apps have an advantage that every Web site envies: they have their own icons; the user just clicks and they’re there. We do not yet know how many different icons users will permit on their devices. Icon capacity may end up being precious real estate that only major brands can ultimately command. Or we may find that consumers are more limited by the number of different relationships with companies that they’re willing to have.

PORTABILITY: Aside from capacity, nothing beats print for portability. You can read a book on a plane, at the beach, in a bathtub or anywhere else except under water. But even if print rules in portability, tablets come in a close second (and ounce for ounce, tablets have vastly greater capacity). With greater portability than even laptops, tablets are showing up just about everywhere. (And if there isn’t a waterproof iPad case available yet, there certainly will be.)

Consumers might not look at their tablets as often as they look at their smartphones, but you should plan on your customers looking for you at any time and from anywhere.

LOOKING FORWARD: The era of digital publishing has just begun and we’re just starting to see how it will evolve. How many different platforms will you have to support? How will business models change? What will consumers demand?

To insulate yourself from these changes while positioning yourself to take advantage of new opportunities quickly, you might want to consider technologies that can help you create information that’s independent of any specific layout or presentation and then automatically produce your information in multiple forms and formats.