November 2010

Pelikan's Antidisambiguation-Blio

Michael P. Pelikan

Penn State University, mpp10@psu.edu

Follow this and additional works at: <https://docs.lib.purdue.edu/atg>

Part of the [Library and Information Science Commons](#)

Recommended Citation

Pelikan, Michael P. (2010) "Pelikan's Antidisambiguation-Blio," *Against the Grain*: Vol. 22: Iss. 5, Article 42.

DOI: <https://doi.org/10.7771/2380-176X.5675>

This document has been made available through Purdue e-Pubs, a service of the Purdue University Libraries. Please contact epubs@purdue.edu for additional information.

Pelikan's Antidisambiguation — Blio

by Michael P. Pelikan (Penn State) <mpp10@psu.edu>

Ray Kurzweil is one of those fortunate persons who is led forward in life largely by his curiosity. Some would say he's as close as we can get to having **Thomas Edison** living amongst us. Some would write him off as a nut.

But if so, he's a really smart nut. His inventions, taken together, reveal a breathtaking span of disciplines, interests, and pursuits: Electronic music, Optical Character Recognition, Artificial Intelligence — and now, an eReader software package.

I first ran across mention of **Blio** many months ago. Navigating to <http://www.blio.com> brought one to a simple page saying, "Coming Soon!" What were they promising? A new kind of eBook reader — "...what eReading should be..."

Well this all sounded very interesting, so I signed up to receive alerts about **Blio**. Months went by. Nothing. I'd stop by the site from time to time — nothing appeared to have changed.

Then, a few days ago — late September — I received an email message from **Blio** containing a link to a download page. **Blio** has been released — for **Windows**, at present, but with apps for **iPhone**, **iPad**, and **Android** promised soon.

So — "what eReading should be," eh? What's that?

Again quoting from the site, "**Blio** displays books in full color, with fonts, pictures, and layout as the publisher intended." Hmmmm.

How does it do that? Sounds like PDF or something, right? Well — sort of...

Blio understands two formats at present, ePub and XPS. XPS is **Microsoft's** XML Paper Specification, which in turn has been standardized as OpenXPS by **Ecma International** (which began life as the **European Computer Manufacturers Association** but which became a Geneva-based, private standards body). **Wikipedia** has a decent article on OpenXPS, describing it as, "...an XML-based (more precisely XAML-based) specification, based on a new print path and a color-managed vector-based document format that supports device independence and resolution independence. OpenXPS was standardized as an open standard document format on June 16, 2009."

XPS differs from PDF in that PDF is, again quoting **Wikipedia**, "...a database of objects, created from PostScript and also directly generated from many applications, whereas XPS is based on XML." Indeed, XPS has been used by recent versions of **Windows** as the print spooler format, meaning that **Windows 7**, for example, includes a native XPS viewer with the operating system. The viewer, in effect, shows the user a view of the document (again from **Wikipedia**), "...created by printing to the virtual XPS printer driver."

As XPS emerged as a document format, a whole raft of third-party tools began to support it: its creation, editing, manipulation, conversion, rendering, etc.

The **Blio** download also installs **Microsoft** PlayReady, which **Microsoft's** official PlayReady site describes as, "...a content access and protection technology...optimized for the mobile industry to support the growth of online content services..." In other words, DRM.

Now, I've already put forward many back-and-forth statements regarding my shifting regard for DRM: in theory, in practice, in application. I've talked about the Zune Pass content licensing model — a locked-tight walled-garden DRM scheme I happen to accept, because I enjoy the benefits it grants me. We've all observed the gradual movement toward ePub, which can be DRM-locked or not, as a document format, and I've extolled the virtues of DRM'd ePub as implemented through Overdrive, enabling folks with eBook readers (except **Kindles**) to borrow eBooks from their local public libraries.

So let me stipulate, once again, that I've grown to feel the DRM, done right, is not the inherent evil that DRM done wrong so frequently appears to be. DRM done wrong gives all DRM a bad reputation and sets back the process of achieving what DRM done right makes possible. DRM done right will make possible (read: monetize) the portable digital content revolution that publishers and consumers both want.

Just remember: we're still figuring out how to do DRM right.

But back to **Blio**. And **Ray Kurzweil**.

When you look a little closer at **Blio**, you find that it is a product of **K-NFB Reading Technology Incorporated**. Find their Website at <http://knfbreader.com>.

"**KNFB**" stands for "**Kurzweil – National Federation for the Blind**." According to their Website, **KNFB Reading Technology** "...creates products that revolutionize access to print for anyone who has difficulty seeing or reading print," including, "...the smallest text-to-speech reading devices in history, the **knfbReaderMobile** and the **kReader Mobile**."

Blio exemplifies the **KNFB Reading Technology** philosophy. Text-to-speech is embedded. Already on the **Windows** package, and pretty soon on **iPhones** and **Android** phones, **Blio** will read to you. This capability is provided in the name of accessibility.

But **Blio** as a software platform also includes (and extends) many of the jazzy extras that have become staples of the **Kindle** world as well. Highlight a word or phrase, right-click on it, and **Blio** offers to look up your high-lighted selection in the dictionary, thesaurus, online encyclopedia, or Web search engine. The defaults are <http://www.thefreedictionary.com>, <http://thesaurus.reference.com/browse/>, **Bing**, **Google**, and **Wikipedia**. In the Settings menu, you can add any additional reference sources you wish.

This same context menu permits you to annotate your selection. The annotation features of **Blio** appear ready to support the type of person who habitually reads with a pencil in hand. The notes panel comes in from the left, showing the term you highlighted as the heading for the note, and permitting additional annotation, inclusion of images, hyperlinks, etc. Notes, place-keeping, etc., can synchronize across devices on which you have **Blio** installed. This is done by including a button to "sync with book vault."

Your book vault appears to be a Cloud service provided by **KNFB**. You have an account, protected by an ID and password. You can search for and download free books — that huge

body of material represented by the **Project Gutenberg** universe — although **Blio** brings in your selections as ePub files that it immediately converts, unbidden and in the background, to XPS format.

You can also buy Books — according to **Wikipedia**, **Blio's** bookstore is backed by **Baker and Taylor** and integrates with **GoodReads**.

All this activity, the reference lookups, title searching, buying, downloading, etc., occur within a browser embedded in the **Blio** app itself. Again, a built-in browser is not new to **Blio** — but **Blio** appears to be bringing together a lot of features that existing users of other eReaders are coming to expect — or hope for.

So how does it look? Well, it looks beautiful! When you download **Moby Dick**, the "cover" you see is the title page from the 1851 **Harper & Brothers** edition. The text which follows is a rendering of ASCII, or UTF-8, but with all kinds of page viewing options. You can reflow it, resize the page, zoom the text, view pages side-by-side (with a nifty animated page-turn), view the "book" obliquely, as if it was lying on a surface, or view the content as single pages.

I put this last option to test immediately on my **Motion Computing J3400 Table PC**, in portrait view. The result is a full-page-sized rendering of text, gloriously readable, with page advances accomplished with a click of the stylus.

So what does this all add up to? Now here, **Pelikan** starts speculating — so take it with a shaker of salt — but I have the feeling there's a lot of torque — possibly — behind and beneath this software offering.

Blio's feature set is very rich. It promises to operate across many platforms. If **KNFB** follows through and makes **Blio** available for the **iPhone**, the **iPad**, and (perhaps most significantly), the **Android** platform, then we may be seeing the start of something very significant.

For the coming wave of **iPad** competitors will certainly be running either **Android** or an operating environment from **Microsoft** (we'll leave the **Windows Phone 7** discussion for a later day, but we'll get there, I promise...). It is by no means a very great leap to imagine some simply wonderful next-generation devices, ranging from shirt-pocket sized, to multi-purpose tablet devices the size of the **iPad** or current eReaders such as the **Kindle**, the **Sony Reader**, or the **Nook**, all the way to standard page-sized devices that embody the capabilities of the net-book, the eReader, and the phone (with webcam, for video conferencing sessions) all in a single, easy-to-carry package. Navigation will be by touches, finger taps, and flicks.

All of this takes as a given that we're slowly (or quickly) being drawn into the Cloud. Our content (whatever "our" means) may be elsewhere, but if we can get it from anywhere, on whichever of our several devices we happen to

continued on page 16

Is the World Wide Web Dying? And Where Are the Standards for “Apps?”

by **Todd Carpenter** (Managing Director, NISO, One North Charles Street, Suite 1905, Baltimore, MD 21201; Phone: 301-654-2512; Fax: 410-685-5278) <tcarpenter@niso.org> www.niso.org

The print copy of *Wired* magazine's September issue arrived in my mailbox with an eye-catching orange cover proclaiming the death of the Web. The feature article by **Chris Anderson** and **Michael Wolff** (http://www.wired.com/magazine/2010/08/ff_webrip/) points out with a colorful graphic that while we may be spending a great deal of time sharing information over the Internet, we are increasingly not using the World Wide Web as our primary interface. We are entering a world where devices, applications, and services are our entry point to content on the Internet.

I am probably a typical example of the behavior described by **Anderson**. Instead of reading the *New York Times* or *Wall Street Journal* in a browser, I have dedicated applications for those publications. I stream **Netflix** either through an application or via my **Wii**. **iTunes**, **LastFM**, and **Pandora** are my music portals, as well as when I stream many podcasts and radio shows. **Twitter**, **Facebook**, **LinkedIn** and **Skype**, where I carry on a fair amount of my communications, are all applications, not plain vanilla browser interfaces. Most, if not all of these, do have browser-based interfaces that I could use but they lack some of the functionality I have come to expect. Although, **Anderson's** article was pilloried in some tech circles for its misleading use of graphics (<http://www.boingboing.net/2010/08/17/is-the-web-really-de.html>), and overstating known trends (<http://techcrunch.com/2010/08/17/wired-web-dead/>), his article and post highlighted a growing problem with our interactions online, not just for users, but also for content creators, aggregators, and libraries.

Back in the mid to late 1990s, development of online journal platforms was challenged by the need to test out the various browsers (http://upload.wikimedia.org/wikipedia/commons/7/74/Timeline_of_web_browsers.svg) to see how a site would be rendered and to ensure that the site functioned properly however users accessed it. In the early days of Web publishing, browser differences could make a site nearly unreadable on some of them. Testing on different versions of **Netscape**, **Internet Explorer**, **Mosaic**, or **Opera** was a critical component of pre-launch work to ensure that the coding was

appropriate for the rendering. This is less the case now, although some variations remain.

Today, we're stepping back to those days of needing a proprietary software application and perhaps losing the interoperability we've come to take for granted with the Web. **Jonathan Zittrain** (<http://cyber.law.harvard.edu/people/jzittrain>) at the **Harvard Berkman Center for Internet and Society** (<http://cyber.law.harvard.edu>) is one of those watching this trend and who decries the move away from open standards and integrated technology, which he argues drove the success of the Web.

If we are indeed moving to the “Age of the App” where Internet users have to interact with content via some interface that is not a browser, this will have significant implications for publishers. While I am a big fan of publication-specific apps, such as *Slate*, the *NY Times*, the *Wall St Journal*, *Wired* and others, not every publisher — indeed most publishers — are not in a position to create and maintain such an app. They'd also have to modify the app for the **iPad** platform, the **Android** platform, the **Blackberry** platform, various e-readers, etc. Plus there are all the devices that may develop next year or three years from now and all the different device's software upgrades that go on continuously. A figure quoted frequently earlier this year during the **American Association of Publishers/Professional Scholarly Publishing** meeting was that a good custom-built app could cost upwards of \$50,000, not counting the cost of the post-release support and tweaking. A publisher's \$50,000 development investment might have a shelf life of 12-18 months because of upgrades to the platform operating system that require an app upgrade or complete redesign. If building one \$50,000 application is on the verge of being too expensive for your organization, building three or four is simply not an option.

The cost alone would be a big impediment for many smaller publishers. An even more critical problem is that the publisher now has an application that works on selected devices but not on others, resulting in only partial penetration within the community for the publisher. The user is also affected by having to install (and possibly purchase) a different app for

every publication and launch a new app when switching publications. Clicking on links within the publication can launch yet another app (or ironically, a Web browser window). The library community is further challenged by serving diverse communities only some of whom may access a portion of the licensed content.

Operating system changes, platform dependencies, and user demands for increased functionality have been problems since the advent of electronic publishing. But the World Wide Web's success, especially as an information distribution platform, was due to its ability to circumvent most of these issues and that ability was due to the underlying standards infrastructure. The era we seem to be entering is taking us back to those earlier problems, multiplied by a much larger variety of devices to support. In an App world, the only standards are the de facto proprietary platform standards used by each device. Although there is some advocacy for standards, such as **EPUB** for eBooks, most eBooks are still issued in the proprietary format of each e-reader usually wrapped by some form of **DRM**, or the **EPUB** formatted publication is overlaid with the publisher's navigation app. From a user perspective, interoperability is even more critical than ever, because few people have only one device and they need to be able to move their content between their smartphone and their laptop, or their PDA and their organization's file server. This is exactly the kind of interoperability that requires the use of common standards, not proprietary applications.

Smaller publishers will likely have to partner with aggregators to deliver their content, much as they did with pooling resources for Web-based distribution platforms like **HighWire**, **Project Muse**, or **BioOne**. As yet such aggregators have not launched device specific applications. For the moment only larger publishers are venturing into the app space, such as the **American Institute of Physics** with their **iResearch iPhone App** (http://scitation.aip.org/labs/10_15_09_iresearch_iphone_app) released last year or the **Nature Publishing Group** (<http://itunes.apple.com/us/app/nature-com/id349659422?mt=8>) and **Public Library of Science (PLOS)** (<http://itunes.apple.com/us/app/plos-medicine/id362137769?mt=8>), each with multiple apps distributed through the **iTunes** store. Highlighting the underlying problem, though, is the fact that all of these applications are for the **Apple iPhone** or **iPad**, not for other platforms. Although **OCLC** has allowed its **WorldCat** data to be served up via third-party applications on a range of platforms, **OCLC** itself has also only developed for the **Apple** suite of products.

And where are libraries in this new app world? With ever-shrinking budgets, libraries can't afford to manage a digital collection with multiple proprietary versions of each content item and all the apps required to run them. If a library chooses (or is forced through budget constraints) to “standardize” on one or a few devices and platforms, they are then limiting the availability of content to what has been developed for those platforms. Just like smaller publishers, libraries will likely need to work with one or more aggregators to ensure access to all the desired content — when or if such aggregators are available at an affordable price. The preservation issues will also become even more complicated than they currently are in the browser-based environment, where libraries are still struggling with how to ensure preservation of content. As if preservation of digital content alone were not difficult enough, there is ample proof of how difficult

continued on page 18

Managing Our Collections ... from page 1

collections given the complexities of campus stakeholder preferences. Sensitivity to user needs and ability to deploy strong rationales for decision-making can help leaders navigate difficult choices.

This *Against the Grain* issue focuses on managing print collections, but the truth is that each of the profiled initiatives is fundamentally about library strategy and services. In an environment of constrained resources, libraries strive to serve user needs with new formats and innovative support roles, find mission alignment with their parent organizations / funding bodies, and avoid deviating from the vital shared value of preservation. Finding the right balance for print collections is imperative to planning a strategy for the library to meet user needs in a changing environment. 🌿

Pelikan's Antidisambiguation from page 14

have at hand, and if our “desktop” and everything we've left there, comes with it — well, that'll be a bunch of steps further toward the kind of environment many have been envisioning for a long time.

So let's all take a look at **Blio**. Regard it not as an app that runs on a **Windows** machine, but recognize it as the next step toward a uniform, multi-platform environment that goes where you go — and that isn't necessarily or automatically run by either of those twin gorillas, **Apple** or **Amazon**.

Google's a pretty big gorilla too. And **Microsoft** — a fair-sized gorilla itself — hasn't died off — not by half.

So I guess we're in for quite a show here. For myself, I'm going to grab some popcorn, a root beer, and enjoy all that emerges... 🍌