

## EPUB 3 – An Insider's Look: How Will Your eBook Operations be Affected?

05.12.11 | Unanswered Questions from the Live Event | Respondent: Eric Freese, Aptara

Question	Topic	Answer
How will new EPUB standards affect the EPUB files publishers have already created (using the old standard). Will these have to be redone?	Compatibility	No. EPUB 3 reading systems must be able to read EPUB 2 files. That being said, if there is new functionality that could enhance a title, you might want to consider reconvert and upgrading.
Will it still be necessary to do a separate conversion for each device/reader?	Compatibility	The hope is that this need will be reduced, but it largely depends on the reading systems.
Can an EPUB 3 file be open on current devices? Have the manufacturers of the devices mentioned if they can just update their devices to support the EPUB 3 format?	Compatibility	Not yet. Some devices might just need a software upgrade. Others I'm not sure. For example, an E Ink device will still not be able to refresh the screen quickly enough to show video.
Will EpubCheck validate an EPUB 3 book?	Compatibility	I believe there is a plan to update EpubCheck to support EPUB 3.
How accessible is EPUB on an iPad?	Compatibility	It depends on the reader being used.
Is alternative text useful in EPUBs used on readers?	Compatibility	Yes.
After such "standards" are established and meetings held, everyone goes back to their HQ and does their own thing anyway, thereby rendering any "standards" moot. Does anyone foresee this happening?	Compatibility	It is the hope of every standards committee that the standard will be implemented consistently. That is why some standards bodies do conformance testing. IDPF is looking into that to ensure some level of consistency between reading systems.
Will current EPUB 2 reading devices be able to read EPUB 3 files even if all the functionality particular to the EPUB 3 doesn't work on the device? In other words, will they be able to read an EPUB 3 at the same level they currently read an EPUB 2?	Compatibility	No. There are structural, non-compatible changes between EPUB 2 and EPUB 3, thus the new version. The devices will need to be updated to EPUB 3—possibly through software updates.

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Since the current EPUB standard is not widely adhered to, assuming that new EPUB 3 devices will support backwards compatibility seems a bit "pie in the sky", doesn't it?	Compatibility	Not sure what you mean. An EPUB 2 file can be opened by any EPUB reading system. It might not look very good, but it can be opened. Even an Apple fixed format file can be opened on a NOOK, though the data doesn't display correctly.
How will these changes affect libraries that collect EPUBs? Will they need to replace their EPUB 2 titles with EPUB 3 titles?	Compatibility	No. EPUB 3 reading systems must be able to read EPUB 2 files. However, there might be a time where patrons' EPUB 2 devices are unable to read newer EPUB 3 titles.
When you talk about EPUB 3 support from reading systems, is this going to require new purchases or upgrades of software?	Compatibility	In general, yes.
Will ADE support EPUB 3?	Compatibility	I would assume that Adobe will update ADE.
Will InDesign start exporting directly to EPUB 3 format? If so, do you know when?	Compatibility	I think it would be safe to assume so, but I am not aware of an announced date.
Liza Daly mentioned current EPUB 3 support in some readers. Do you know of any current support?	Compatibility	Not at this time.
Is there any scope for joining EPUB with standards like SCORM for interactive educational content?	Compatibility	I believe IDPF would work with the groups maintaining other specs to create synergies wherever possible.
How closely will the EPUB 3 (or IDPF) group be working with the development group of EpubCheck? Required validation for a major publisher, but not sure if the developers have the time to develop it and do their own work.	Compatibility	The development group was part of the EPUB 3 Working Group.
What can you say about dictionary schema?	Tagging	The EPUB Working Group is working on an extension spec to dictionaries.

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Are there any tags or CSS elements I should be avoiding in my current EPUBs (where we're designing for EPUB 2 standard) so that when eReaders move to EPUB 3 my eBooks will still work and look good? Or will I need to re-do my eBooks with EPUB 3 specs?	Tagging	Your EPUB 2 files should work on EPUB 3 devices.
What would those fragment IDs look like in an earlier document stage like MS Word files?	Tagging	They can be any string. You could associate a specific style to them within Word that then gets converted into a string in the EPUB.
Can fragment IDs be used to embed rights information (e.g. for art) into the EPUB file?	Tagging	They can be used to provide reference targets for that metadata. The additional metadata might be inserted using the enhanced metadata capabilities also within the spec.
Can you discuss EPUB 3 with regard to journal articles, especially metadata capture?	Tagging	EPUB 3 has a greatly expanded metadata capability.
If additional metadata can be added, how does that affect the lack of industry standards for identifying chunkable content? Should we use an ISBN for each chunk? DOI?	Tagging	Not ISBN. Maybe DOI, maybe a combination of one of those and internally unique IDs.
Can you tag to go outside the book as to where to buy?	Tagging	Yes.
Is there any relationship between IDPF and the Dublin Core group regarding the richness of possible metadata? I'm now hearing pushback from the library community regarding the lack of sufficient metadata.	Tagging	Metadata was one of the features that was greatly expanded in EPUB 3. It is now possible to incorporate much more of DC as well as other metadata schemes like ONIX, PRISM, etc.
Different screen sizes of devices (iPhone, iPad, Kindle, NOOK, etc.) are a barrier to multiple-column presentation, side-bars, boxed text, etc. Do the new standards established for EPUB 3 take these restrictions into account?	Layout	The EPUB Working Group is working on an extension spec to support device specific layouts.

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Is "fixed layout" inside EPUB 3?	Layout	It's allowed, but not specifically mentioned. I don't foresee anyone but Apple supporting it.
Is IDPF developing a standard for cross-device compatible fixed-layout EPUBs like Apple is developing for the iPad?	Layout	Not that I know of.
Regarding fixed layout possibilities, does EPUB 3 close the gap between the current EPUB standard and the digital magazine solutions for iPad and other tablets like Adobe and Woodwing and Mag+ that publications like Wired are based on?	Layout	It does close the gap somewhat, but not completely. There is an effort sponsored by IDEAlliance called nextPub that is geared to publishing magazines using EPUB 3 as the core.
We publish a magazine and would like to EPUBlish it. Is there a content management system for EPUB 3 that non-programmers can use to convert publications?	Layout	You could look at Calibre, but to convert the magazine will take some programming.
Is the magazine industry likely to get behind EPUB 3?	Layout	There is an effort sponsored by IDEAlliance called nextPub that is geared to publishing magazines using EPUB 3 as the core.
We are worried that publishers will make EPUB 3 inaccessible for those with disabilities. Adobe failed us on this. What are your thoughts?	Accessibility	The goal of the EPUB Working Group is that EPUB 3 files will be accessible by nature. The hope is that publishers will take the extra steps for increasing accessibility and those steps will be added to the recommended best practices that are developed within the industry.
Will footnotes be more standardized, as in DAISY XML, or left more freely as it is now? For accessibility this is still a weak point, and now with JavaScript it could break accessibility even more.	Accessibility	There is semantic markup to better define footnotes, similar to what was in DAISY.
Providing accessibility is a mandate for us. How can I find out more about accessibility provisions in EPUB 3? How can I direct my vendors to find out how to do what is necessary to ensure accessibility?	Accessibility	Best to review the EPUB 3 specs themselves.

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One issue with audio books and Text To Speech is that agents and authors are protesting if they have contract rights to audio, or they want sub-rights royalties paid in addition to regular royalties.	Accessibility	Yes, it is. It is the hope that pricing models can be developed that change the licensing models and make it easier to allow audio and Text To Speech.
I'm very interested in the synched audio/text. Is it possible to synchronize text to an audio file that I produce (rather than an automated Text To Speech)?	Accessibility	Yes, I believe so.
Can we expect that publishing tools designed to generate EPUB 3 will also support generating all accessibility functionality?	Accessibility	I would certainly hope so.
Did Amazon switch to EPUB as well?	Amazon	Not as the delivery format, but they are able to ingest EPUB and convert it into MOBI (the Kindle format).
How do you know that most Kindle sales “were ingested” as EPUB?	Amazon	From discussions with publishers about what they deliver to Amazon.
Will Amazon ever adopt EPUB?	Amazon	It would be nice, but it would also involve re-plumbing their entire ecosystem, which would be quite an undertaking.
Is there anything in the spec that supports notes and user annotations that are independent of the book and won't be erased when the EPUB 3 file is updated?	Annotation	The EPUB Working Group is working on an extension spec to support annotations and interchanges of annotations.
Is there an official annotation guide for EPUB 3 on different devices? Details are very important to train editors and production.	Annotation	An extension annotation spec is in the works. No estimate of delivery timeframe, though.
Will fonts, other than the ones that reading devices provide, be supported? In other words, will font embedding override the reading system's fonts?	Fonts	Yes.

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Bill had mentioned embedded fonts will be functional with EPUB 3. Could this be elaborated on? Will publishers be able to package custom fonts into the EPUB 3 file and have it work on all EPUB 3 compatible devices?	Fonts	As long as the font is in a supported format, and the publisher has license to distribute it, it should work.
Does the rise in HTML5 as the language of choice for the web effect publishers instituting XML workflows?	HTML5	It shouldn't, because HTML is still a formatting-based markup language. There are often things which need to be labeled that cannot be labeled in HTML.
Does HTML5/Javascript support imply that an EPUB 3 book could communicate to a backend server if network access is available?	HTML5	It is possible, but probably should not be assumed at this point. That functionality will be largely dependent on the reading system and therefore should not be planned as part of a book.
How will math equations work in EPUB 3? What are the steps to embed math in EPUB 3?	Math	MathML is supported within EPUB 3. I would suggest that math be inserted using MathML with an image fallback for reading systems that cannot yet support MathML.
Does the EPUB 3 standard include graceful degradation of MathML for older readers that don't support it?	Math	Yes.
Does EPUB 3 provide better standardization guidelines for font embedding, specifically for mathematical publications which must be rendered properly? Font obfuscation causes errors in EpubCheck.	Math	An updated EpubCheck that supports EPUB 3 should be expected and should remove those errors.
Do any readers support MathML now?	Math	Unsure.
You mentioned math equation support. Will there be better support for Excel tables?	Math	This is a very broad question. Tables in general will still be an issue. I wouldn't expect live formulas to work within an EPUB 3 file.
Will support be available for data (tables, supplemental figures, appendices, etc.)?	Math	Yes, but tables are still a problem based on screen real estate.

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Will EPUB 3 support PDF page numbering? How about page locators?	Page Numbers	The metadata markup will support placement of page numbers and number-based markers.
Now that the concept of "page numbers" is becoming obsolete, will tools be developed to transfer indexing system results to content-specific or fragment-specific EPUB 3 metadata?	Page Numbers	Aptara does that quite often for publishers, but there is not really a standard method for how that is done. The solutions are often based on the content.
Please tell us more about scripting in EPUB 3 to enable eBook interactivity, for advanced knowledge check, educational games, etc. For example, how much of JavaScript functionality we can expect to be supported by EPUB 3? Can such complex interactive functionality be supported with EPUB 3 without getting locked to any particular hardware/software environment?	Scripting	The limit of Javascript support will largely be based on the reading systems and what they choose to implement.
Is there anything in EPUB 3 that would help with "dynamic" linking to material outside of the eBook, e.g., a link that is actually a search? Would this be a potential use of Javascript?	Scripting	That is a potential use of Javascript. However, I'm not sure how "dynamic" that linking would be.
Will the EPUB 3 standard allow for combining "online content" so that, for example, video can be streamed from a server and not necessarily be included in the book?	Video	You can do that in EPUB 2 now. How the access is done is controlled by the reading system.
How will the new EPUB 3 capabilities, like video, run on E Ink readers?	Video	I don't think current E Ink screens can refresh quickly enough to show video.
Does the format support streaming as well as downloaded video content?	Video	Yes.
If both video formats are included in files, will we run into problems with file size?	Video	Possibly.

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Please discuss file size issues and what that will bring to EPUB 3. I'm hearing that, with all the extra video and audio, these eBooks will be much larger in size and therefore take longer to download.	Video	That is true. Publishers and retailers will need to take that into consideration.
Does Aptara provide video in both formats?	Video	Yes, Aptara can do the conversion between formats.
Is there, or will there be, the ability to embed Flash objects (especially, interactive) into EPUB books?	Video	It can be included within the EPUB 3 file, as in EPUB 2. There will still be limitations as to which devices can support Flash.
When Aptara tests on devices how do you mark up change requests and relay those back to your conversion teams? Video? Screen caps? All variables must match if the remote team is opening the file on their device. Do you have any recommendations?	Testing	Photos, video and screen caps work best due to the possible differences.
How will smaller/independent publishers afford to test on ALL devices? What are the chances of hardware vendors providing emulators or free devices for testing to "registered" publishers?	Testing	Publishers will likely pick a core set of devices which represent a large percentage of the market and concentrate on those.
Are there any plans to provide tools for testing layouts, similar to what the web community has (Firebug, et al)? I know it's not IDPFs responsibility, but have reader makers mentioned it?	Testing	Adobe Digital Editions is used for that now. I'm not aware of other tools specifically for testing layouts.
Can you recommend which devices publishers should invest in to test the EPUB files?	Testing	iPad, NOOK Color, Adobe Digital Editions.
Does the enhanced global language support include support for content with multiple languages that have different orientations?	Global Language	That is the intent. The hope is that reading systems are able to support this functionality.

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I am looking for training that isn't overly expensive to help us convert our books to the EPUB format. Is there a training video available that you know of?	Training	I am not aware of one.
A "how to" workflow on how to proof, mark up, illustrate changes, pass on to production, etc. would be extremely helpful for the various major devices, i.e. iPad, Kindle. (We are currently starting to have Aptara convert our .indd files to EPUB and MOBI.)	Training	Yes, it would. Perhaps Aptara should develop that.
Are there any WiFi capabilities in EPUB 3 for storing media outside the file?	Miscellaneous	This is a device-specific issue, not an EPUB issue.
Are there expectations from XML editors, such as XMLSpy and <oxygen/>, to support EPUB 3?	Miscellaneous	It would seem likely that support would also be updated.
Is EPUB 3 is moving towards the interactivity that apps provide?	Miscellaneous	Yes, but not all the way. There are calls to system functionality that are not part of EPUB yet, but theoretically could be included in a Javascript library.
Does the eBook creator have to buy a license for MP4, or just the reader manufacturers?	Miscellaneous	The reading system developers have to buy the license for MP4.
Ever thought about "dynamic server content"? Imagine a determined part of the book that can be "fed" by, for instance, RSS feeds.	Miscellaneous	I have heard discussions around that.
Why would an eBook vendor ever want a PDF over an EPUB?	Miscellaneous	Page fidelity.
How does EPUB differ from PDF reflow?	Miscellaneous	PDF doesn't reflow.
To what degree can or will unicode be supported?	Miscellaneous	Unicode is built into HTML5 and therefore it is part of EPUB.

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Will EPUB 3 allow for Facebook-like fan interaction (i.e. within the eBook app itself), rather than leaving the book and interacting on the Web?	Miscellaneous	That is up to the reading system developers.
Is it possible to feed dynamic content within the EPUB 3 spec?	Miscellaneous	Theoretically, yes.
Will EPUB 3 support QR codes within the content?	Miscellaneous	They can be supported as images now.
When does Aptara intend to begin incorporating the EPUB 3 standard in its conversion services?	Miscellaneous	Aptara has been working within the committee to develop a broad understanding of the new spec and is prepared to begin working with publishers now to plan for migration to EPUB 3. However, we believe it would be prudent to delay full production until the spec is finalized and reading systems that support EPUB 3 are announced and released. In the mean time, we can work with publishers on samples and pilot projects in order to get the best content and infrastructure in place so that production can be rapidly started. Of course, if we are able to utilize pre-release apps or devices, that process can start much earlier.

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