

Fixing EPUB – Great Expectations

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The Biggest Problem

- Electronic books mimic printed books. *Print first* ebooks.
- But digital books can be *interactive*.
- Digital media can be *queried*.
- The *fundamental nature* is different, and the books should reflect that difference.
- Semantic Markup is supposed to enable that.
- Let's think about *digital first* ebooks.



How to Make It Better

- Make a *business case* for improving markup
- Generate *customer demand* for better books and e-readers
- Provide *publisher tools* for cost-effective tagging
- Describe *behaviours* that connects these three
- Just sayin' it could even make it happen.

Business Case

- Markup enables features; rather than *incremental improvements* go for *I want this* improvements, a big jump.
- Examples: per-book dictionaries; context-sensitive character & place notes; live formulæ & interactive diagrams

Semantics & Situations

- HTML: Browser semantics, search engine semantics
- JSON: not really markup; application semantics
- EPUB: XHTML: browser & reader semantics + metadata
- XML: Domain semantics; externally-applied behaviours
- Problem: ebooks in browser headspace, not domain

Doman-specific Markup

- Long-press *Mirkwood* to see where it is on the map;
- Long-press *Raskolnikov* to see the entry in the *Dramatis Personæ* at the back of the book;
- Long-press on *Mellon n n* to see a translation;
- Long-press on *Cathy* and see her bio and her status at the current point in the book, without spoilers;
- Search for these things across books.

Behaviours

- Search all your books for a character named Green. Not the colour green, the person.
- Enter numbers into equations, or click to see a graph plotted.
- Long-press a word to see the *context-sensitive* definition in the book's glossary
- Show me *Minas Tirith* on the map of Middle-earth
- Link to other books, quotes, citations
- Fragments of music notation you can play

Reader Improvements

- Per-chapter table of contents
- Wayfinding cards (thumbnail of each chapter start)
- Split screen for glossary or translation (Loeb!)
- On-screen footnote thumbnails
- Audible footnote dings, end-of-paragraph notes
- No-distraction auto-scroll mode

Example Approaches

- Could have markup libraries like TEI “toppings”
- Least cost: per-book dictionary in the reader, included with the book;
- Better: Markup, e.g. `personName`, `orgName`
- Best: Context sensitive markup, maybe JavaScript implementations?

Customer Demand

- Demand is generated by marketing; why would you want to buy the “epub plus” version of *Lord of the Rings* or *Calculus for Masochists*?
- New readers (hardware, apps, Web) with new features make vendors interested...

Publisher Tools

- Sometimes it's the author supplying notes (Osgiliath: a deserted town near Minas Tirith used as an outpost; Osgiliath: a ruin overrun by orcs) or a *dramatis personæ*;
- The publisher doesn't care so much about the actual content, but if highlight-and-mark brings in more revenue they'll do it;
- What if paying customers could also contribute?

Books as Silos

- I want to search across all my books
 - And other books like them
- Books that link to the next in the series, or to a related book, or a quote source
 - Links should use my copies of the target book, or offer to download or buy the target book



Breaking the Silo

- W₃C Verifiable Credentials provide a way to say, this user owns the right to read this book;
- How about the ability to read any ebook in any installed reader, and to follow links from any book to any other, automatically being given a chance to buy the target book if needed...

Just saying it

- We (collectively) failed to market the idea of domain-specific markup to epub vendors.
- Is it an idea that's timely now?

Only you can do something about it

There's no-one there, my friend, any better.

Surely we're bright enough to
outshine the stars

The human kind gets so lost in
finding its way

(Lamb, Wise Enough)

Together we can change the world

Can't do it by myself, so I'm asking for your help

Together we can change the world

Sail past where it's been charted

Roll up your sleeves & let's get started.

(Mark Shepard, Together we can change the world)

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