

e-book reading software on web browsers

June 2012 – Éric Daspet



editech
EDITORIA, INNOVAZIONE, TECNOLOGIE

Milano
21 > 22 giugno 2012

‘tea’
the ebook alternative



Who am I ?

Éric Daspet

- CTO at TEA, The E-book Alternative
- Previously: technical expert on web and open technologies

TEA, The E-book Alternative

- www.tea-ebook.com
- We provide a complete and open end to end e-book distribution solution for booksellers
 - Live now : decitre.fr/ebook.htm and ebook.cultura.com
- Live project about e-book reader in in web browsers
- Open Source, Open ecosystem

What's a reading app anyway ?

In the e-book file

- Let's talk only about the standard & open format (ePub)
- Content is mostly web pages: HTML + CSS + Javascript
- Epub is content + metadata in a zip file

Reading e-book

- Displaying web pages (content of the e-book)
- Managing the personal library (reading metadata)
- Read and understand all ePub metadata
- + additionnal features: annotations, store, social...



Going native, the basics



Five platforms :

- Android, mainly via Google Play, mostly Java and ARM
- iOS, App Store, Objective C
- Desktop : Windows, Mac, Linux

Very different

- Different technologies
- Different UI guidelines
- Different performance, screen size, ...

Being cross platform is very expensive

Going native, strategic issues

iOS : you need to sell with Apple App Store

- Takes 30%, may be most of your benefit
- Users are encouraged to migrate to iBooks to buy

Android : that's no different

- Some app authors were asked to use Google Wallets with a threat to have their app removed
- TOS may be enforced more strictly in the future

Mac OS X : future is not really better

- Encourage to use Application Store in latest versions
- Installation of third party apps could very well be deactivated by default in a future Mac OS X



Why going on the web



| One unique platform

- One technology, only one engineering team
- One application, no duplication, no sync issue

| Perenity

- No platform could think of blocking web apps
- You will be able to do want you want

| Convergence

- That's already what e-books are based on
- Delegate most rendering to browsers

What could we achieve ? functionalities

| Reading, buying, managing our personal library

- All that offline (yes, really)
- With a touch UI when useful (yes, really)
- Easy to update, with no third party validation (win!)
- With no installation (win!)
- App is accessible from a simple internet link (win!)

| We could link or mix with anything on the web

- Open annotation server
- Facebook, social reading

First difficulties, server-side processing

Things are quickly complex

- Does your browser support SVG ? MathML ?
- How do you follow in-book links ?
- What about DRM ?

-> You need to process your books before display them

Where is your processing taking place ?

- Everything is in your browser is tempting
 - But no DRM support, and may be slow
- > You need a server-side processing
- This means you need an access to all books files
 - Amazon, Apple, Google, Kobo are already asking for them

First difficulties, offline access

| Browser have offline access (yes, really)

| App Cache : for your application code

- But you will never be sure the cache is still there
-> hope browsers will find a solution

| IndexedDB : for book content

- Book chapters, but also fonts, images, styles, ...
-> You may have to use alternatives on some devices
(webSQL, local storage, app cache)
- Quota is different on each device
- We do not always know what is the quota
-> You may have to require Chrome or Firefox on Android

First difficulties, perfect rendering

| Pagination

- How to jump to page XX ?
- Should we display one or two pages ?

| Fixed layout

- Playing with the viewport

| Rendering quality

- You are limited to what the browser offer
- Justified text, specific CSS, javascript

-> This will and should be a never ending effort

Some others are trying, retailers

Amazon cloud reader: read.amazon.com

- Very limited for now, first solution online

Kobo instant reader: read.kobobooks.com

- No Firefox and no IE compatibility yet
- Ask to download the book even if online

Immatériel (distribution platform)

- Deliver a « streaming » access with their books
- No offline

Some others are trying, independant softwares

Many of them

- Ibis reader
- Bookstream
- Monocle
- MagicScroll
- EpubReader
- Booki.sh
-

With all the same limitations

- No DRM support
- No integration with the bookstore
- None is perfect



Some others are trying, IDPF



| IDPF promote Readium

- Proof of concept
- Not designed to be as polished as an end user product

| Open Source

- End of the consistency nightmare for the future ?
- Could be use as basis of another project

| Standards

- Designed to implement the full standard
- Best opportunity ?

| Ok, it's a difficult work but ..

- Cross device app
- No term of service by a third party
- You don't have to write a rendering engine from zero
- Most strategic move today

| Easy integration of anything « web »

- Facebook
- Open annotation server
- ...