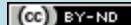


W3C DIGITAL PUBLISHING INTEREST GROUP UPDATE

Tzviya Siegman, Wiley, and Ivan Herman, W3C

eBooksCraft Conference, Toronto, Canada

2015-03-11



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DPUB IG ORIGINS

- The publishing industry is, probably, the most important user of W3C's Web technologies after (traditional) browsers:
 - Almost all journals, magazines, etc, have an online version these days
 - Scholarly publishing cannot exist without the Web any more
 - EPUB is, essentially, a frozen and packaged Web site
- The quality requirements of the publishing industry are very high:
 - High quality typesetting, graphics, etc.
 - New forms of publishing will be based on high level of interactions, rich media,...
 - Common document and data publishing comes to the fore

DPUB IG ORIGINS (CONT.)

- But... the publishing industry had been in an entirely “passive” mode v.a.v. Web technologies
 - No participation in the development of fundamental Web technologies
 - W3C (and other standard bodies) hardly know about the requirements that industry may have
 - The potential synergy between Web developers and publishers is missed out
- Consequence: Working Groups at W3C set their priorities without knowing about, and considering, the publishing industry

DPUB IG ORIGINS (CONT.)

- W3C and IDPF organized a series of exploratory workshops in 2012 to create a missing synergy among communities
- The W3C [Digital Publishing Activity](#) and the [Digital Publishing Interest Group](#) was formally chartered in May 2013
- DPUB IG has weekly teleconferences and annual face to face meetings
 - Next in 2015 – semi annual F2F: 26 May in NYC

DPUB IG MISSION

“ The mission of the Digital Publishing Interest Group (DPUB IG) [...] a forum for experts in the digital publishing ecosystem [...] for technical discussions, gathering use cases and requirements to align the existing formats and technologies (e.g., for electronic books) with those used by the Open Web Platform [...] ”

DPUB IG MISSION EXPLAINED

- Experts familiar with the ins and outs of digital publishing and its associated industry groups identify issues that are not addressed by the Open Web Platform
- Our goal is to raise issues to W3C working groups who can update (or develop) specs based on our information. We often delegate members to the WGs as well
- DPUB IG has task forces with leads to focus attention on specific issues and collaborate with other WGs

See our [website](#) for more detail.

**SO, WHO DOES THE
WORK?**

EVERYBODY DOES THE WORK!

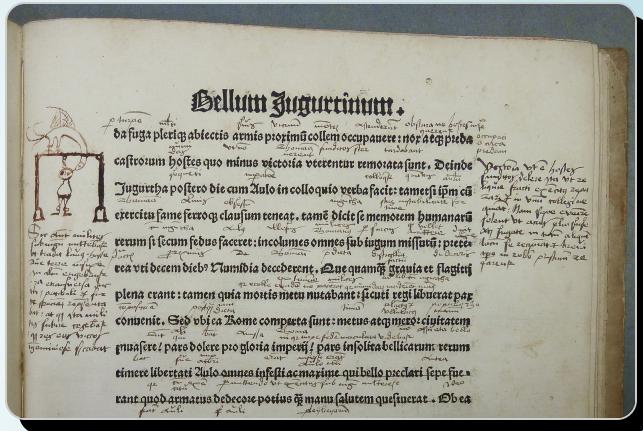
- IDPF has been writing specs for digital publishing for 15+ years, using W3C standards as a basis
- DPUB IG highlights issues in OWP (W3C) that do not support the needs of digital publishing and learns from the W3C
- W3C WGs update specs as needed to reflect needs of digital publishing and the broader web community

DPUB IG TASK FORCES

- Annotations: Rob Sanderson
- Layout and Styling (aka Pagination): Dave Cramer
- Metadata: Bill Kasdorf and Madi Solomon
- Content and Markup: Tzviya Siegman
- Accessibility: Deborah Kaplan and Charles LaPierre
- STEM: Peter Krautzberger

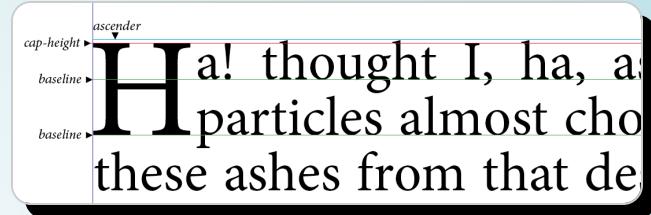
ANNOTATIONS

- Published [Annotation Use Cases](#)
- Activity and work has shifted to the [Web Annotations Working Group](#), the first WG born of DPUB work
 - The work aims at annotation for all forms of Web Documents, whether in a browser or an eBook
 - The first Working Group at W3C joining forces of both browser and publishing industries from the start.



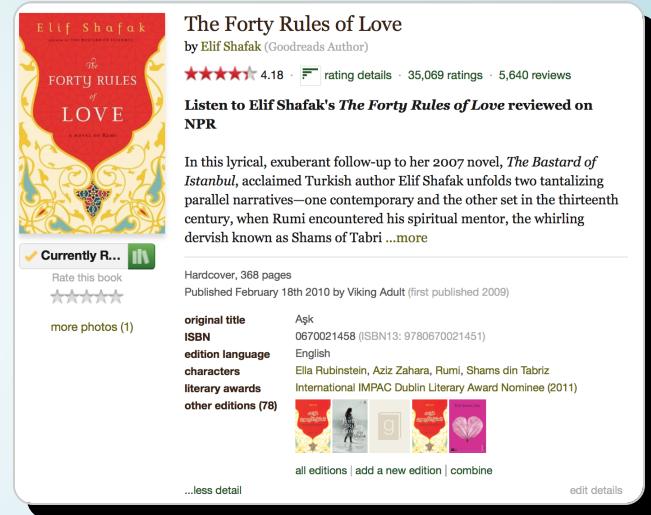
PAGINATION AND LAYOUT

- Published Requirements for Latin Text Layout and Pagination
 - Requirements for print and digital publishing from HTML and CSS using the Latin alphabet
 - Not a static document, new releases will come
- Work with CSS WG to publish the [CSS Inline Layout Module Level 3](#), a working draft that enables drop caps and stick-up caps in CSS
- Participation in the CSS WG's new work on making pagination control implementable in a standard way (as opposed to the current, wildly differing solution used by the industry), also gathering [requirements](#).



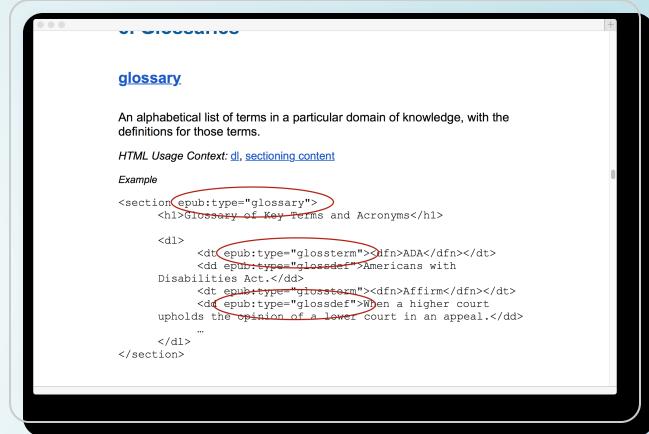
METADATA

- Interviewed publishing experts in metadata
- Published DPUB IG Metadata Task Force Report
 - Note summarizing findings in interviews
 - Discovered that OWP has the tools that publishers seek, but many in publishing are not familiar with tools
 - This group can aid the publishing industry in using OWP tools to implement existing vocabularies



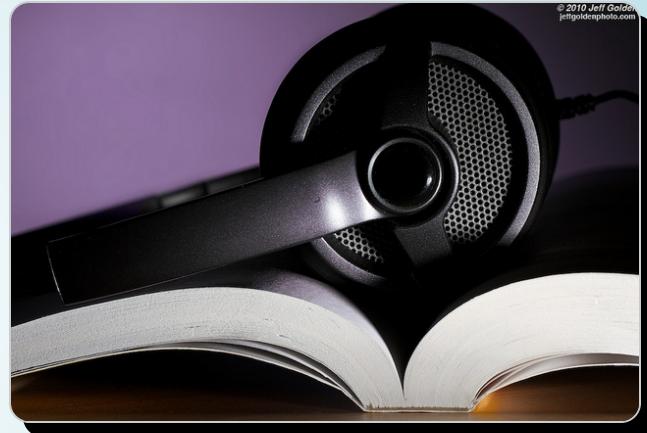
CONTENT AND MARKUP

- Goal is to provide a standard way to add a logical structure on top of (but staying compatible with) HTML
 - E.g., identification of various types of sections, index terms, glossaries, etc.
- Working with a W3C Working Group that develops such extensions for accessibility purposes (called ARIA)
- Proposed preliminary list of terms to as a module of ARIA
 - Terms provide native HTML elements with specific semantic meaning appropriate to digital publishing
 - Working in the context of ARIA provides increased accessibility



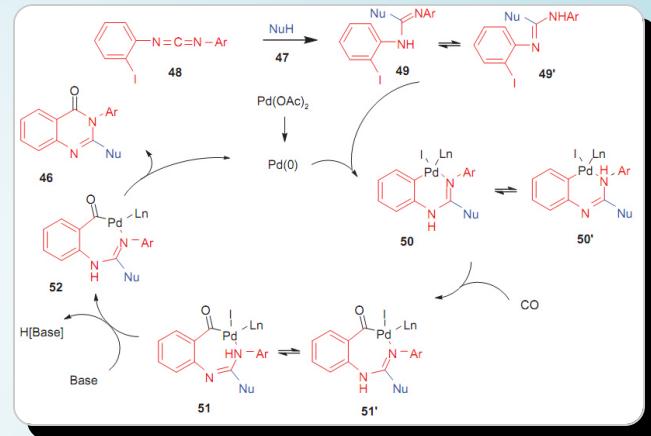
ACCESSIBILITY

- Drafted use cases related to accessibility and personalization in digital publishing
- Reviewing W3C accessibility documentation (UAAG, WCAG, and ATAG) to assess whether the documents reflect the needs of digital publishing and whether publishers are using the documents



STEM

- Conducted initial interviews with STEM experts to get an idea of major pain points in digital publishing
- Preparing pointed survey to refine information gathered in interviews



WHAT'S NEXT?

- Bring some guests to DPUB. Exposing our group to some experts of the web world will be mutually beneficial
- Continue our task forces with targeted deadlines and deliverables
- Involve DPUB members in the planning and development of EPUB-WEB

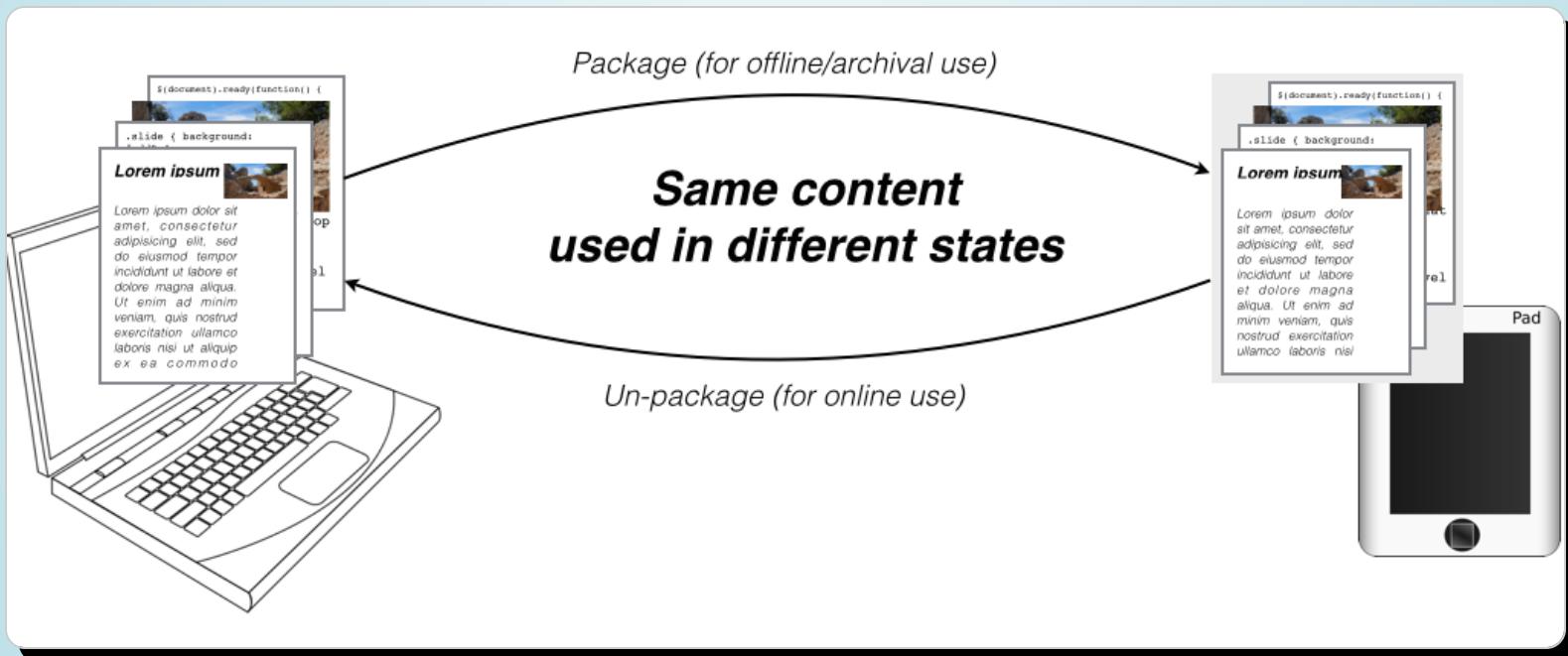
WHAT'S NEXT? EPUB-WEB

- IDPF and W3C published joint vision of future of digital publishing in a white paper entitled "Advancing Portable Documents for the Open Web Platform: EPUB-WEB"
 - White Paper is available at <http://w3c.github.io/epubweb/>
 - Provide feedback at <https://github.com/w3c/epubweb/issues>

THE EPUB-WEB VISION

- Portable documents are fully native citizen of the Open Web Platform
- Separation between online (i.e., the “Web”) and portable (i.e., “EPUB”) is diminished to zero
- This means:
 - Content authored for primarily offline use can be used online by loading it into a browser
 - Content authored for primarily online use can be easily saved as a portable document for offline use
 - These should be doable smoothly, solely based on the user’s interaction

EPUB-WEB IS A VISION FOR THE FUTURE

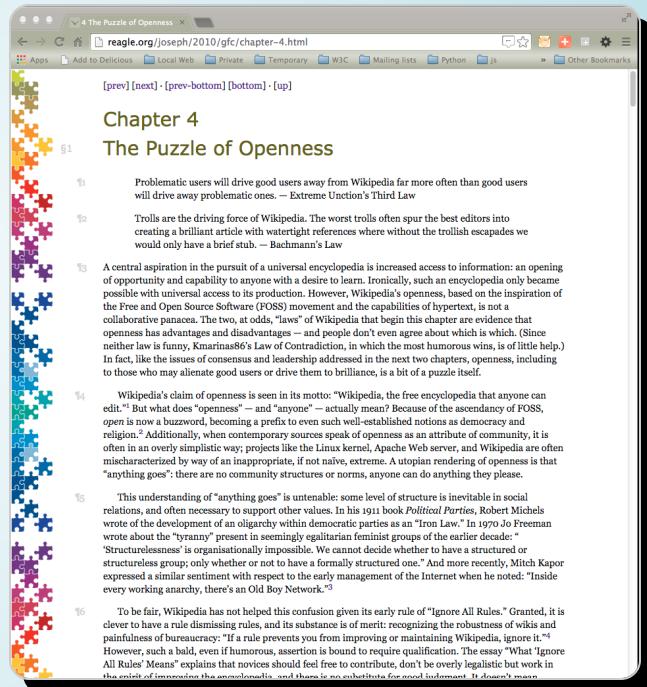


THE VISION

- Publishers can choose to utilize either or both of these publishing modes
- Users can choose either or both of these consumption modes
- Essential features flow seamlessly between on-line and off-line modes, like
 - Cross-references, user annotations, access to on-line databases
 - Licensing and rights management
 - etc.

FOR EXAMPLE: BOOK IN A BROWSER

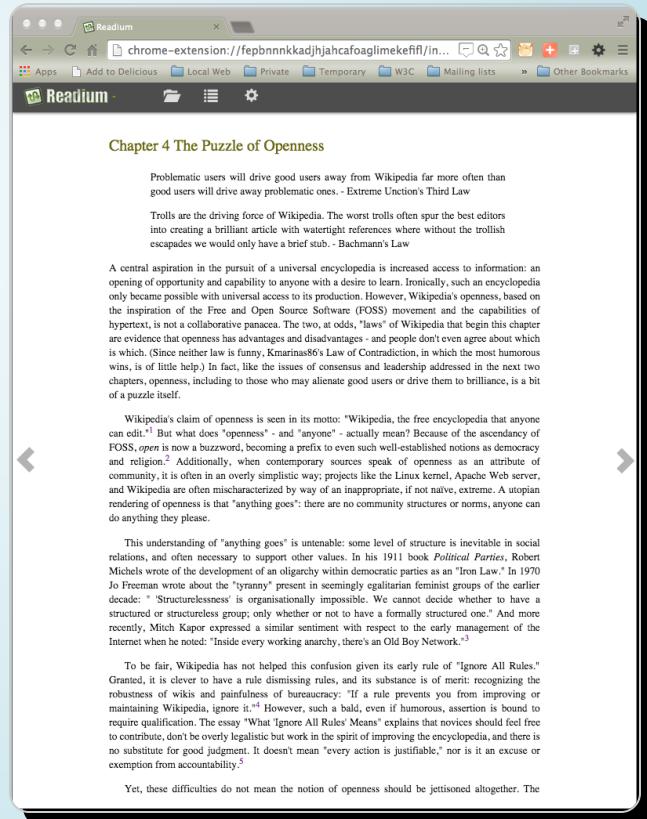
- On a desktop I may want to read a book just like a Web page:
 - easily follow a link “out” of the book
 - create bookmarks “into” a page in a book
 - use useful plugins and tools that my browser may have



Extract of Joseph Reagle's PhD on the Web

FOR EXAMPLE: BOOK IN A BROWSER (CONT.)

- But:
 - my book may be 2000 pages long
 - conventional Web browsing may not be the right way to view content, a paginated view may be better
 - I may also want to use a small dedicated reader device to read the book on the beach...
- All this should happen using *the same* book, and not a conversion from one format to the other!



OTHER USE CASES

- Online and Offline support
- Scholarly publishing, including data sets, audio, video, programs, etc.
- In-house publishing: companies (IBM, Boeing, Renault, etc.) publish digitally, with fast refresh time, and need both offline and online
- Archiving and preservation of complete Web documents
- Education materials including “book” content, interactive assessments, animations, a Web client for assessing test results, data for demos, and more



HOW DO WE GET
THERE?
(TECHNICALLY)

HOW DO WE GET TO EPUB-WEB?

- A strong cooperation between the different communities should be ensured
- Technical challenges must be identified
- A new generation of EPUB (“EPUB-WEB”) has to be specified

SOME TECHNICAL CHALLENGES

- Packaging Format better adapted to Web needs (e.g., streaming), see [Packaging on the Web](#) draft
- Document Structure: the current EPUB3 structure (“spine”, etc) may have to be adapted to Web browsers, with possible defaults and possibility for user interactions
- Identification:
 - General structures for unique ID-s so that documents Web citizens
 - IDs for fragments so that it is possible to link *into* documents

SOME TECHNICAL CHALLENGES (CONT.)

- Metadata: use of webby methods to identify products, provide means for rich metadata carried with the EPUB-WEB document
- Further improvements on styling and pagination
- Security and privacy
- Presentation control: reconcile the different traditions of user control (e.g., font size) for documents

DPUB IG AND EPUB-WEB

- DPUB IG already has task forces dedicated to working on many of the EPUB-WEB issues
- The group should contribute to the formulation of the EPUB-WEB technical challenges, better understanding of the requirements
- The detailed technical specification for EPUB-WEB will be done in separate W3C Working Groups

UPCOMING EVENTS

- 26 May, 2015: DPUB Face to Face @ Hachette Book Group, New York, NY, USA
- 27 - 28 May, 2015: IDPF Digital Book 2015, New York, NY, USA

SOME REFERENCES

DPUB IG Wiki

https://www.w3.org/dpub/IG/wiki/Main_Page

EPUB-WEB White paper:

<http://w3c.github.io/epubweb/>

EPUB-WEB Issue list:

<https://github.com/w3c/epubweb/issues>

This presentation:

<http://w3c.github.io/dpub/ebookcraft-2015-03/> (PDF is also available for download)

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THANK YOU