EPUB 3 Update

Latest Developments for HTML5-based Digital Books

Digital Book 2013
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Markus Gylling, CTO DAISY & IDPF   <mgylling@idpf.org>

This session

- Interoperability: Reading System Test Suite
- Current standards projects update
  - AHL
  - Indexes
  - Dictionaries & Glossaries
  - Annotations
- W3C Digital Publishing Interest Group
- EPUB in education workshop
- Readium update

EPUB 3 Reading System Test Suite

- Objective, repeatable RS tests that anyone can run, anywhere
- Accumulation of results for "can-I-use" type information
- *Hopefully, also a trigger for (some) RS vendors to "speed up"…*

- Next steps: additions, refinements, clarifications…
- … and the web site for accumulated results

Announcing: public beta in August

https://github.com/mgylling/epub-testsuite

MathML

mathml-010   **Rendering**

Tests whether MathML equation rendering is supported.

$$\int_{-\infty}^{\infty} e^{-x^2}\, dx = \sqrt{\pi}$$

$$\sum_{n=1}^{\infty} \frac{1}{n^2} = \frac{\pi^2}{6}$$

$$x = \frac{-b \pm \sqrt{b^2 - 4ac}}{2a}$$

→**If the preceding equations are not presented as linear text (e.g., x=-b±b2-4ac2a), the test passes.**

mathml-020   **CSS Styling**

Tests whether basic CSS styling of MathML is supported.

$$2x + y - z$$

→**The test passes if all of the following are true:**

- The equation will have a dashed border and a yellow background if styling of the `math` element is supported.
- The operators will be enlarged relative to the other symbols and numbers if styling of the `mo` element is supported.
- The identifiers will be bolded and blue if styling of the `mi` element is supported.
- The number 2 will be italicized and yellow if styling of the `mn` element is supported.

Geolocation

This section contains tests for the [Geolocation](#) API.

[OPTIONAL]

geo-010   **The `geolocation` object**

Tests whether the `navigator.geolocation` field is defined.

PASS

→**If the preceding paragraph reads "PASS", the test passes.**

If the preceding paragraph reads "FAIL", none of the remaining tests in this section (`geo-*`) apply and should be given the result `N/A`.

[OPTIONAL]

geo-020   **Current Position**

Tests whether it is possible to find the user's current position using the geolocation API.

PASS

→**If the preceding paragraph reads "PASS", the test passes.**

EPUB Reading System Test Suite   version 20130305

Reading System:	
Reading System version:	
Submitter email:	

[Submit results]

epub30-test-0100.epub

Test for XHTML, SVG, Scripting, Styling and Layout in a reflowable context

ID	Type	Result	Description
XHTML Content Documents			
audio-010	REQUIRED	N/A ⬍	Tests whether the HTML5 `audio` element is supported using `MP3` audio.
audio-020	REQUIRED	N/A ⬍	Tests whether the HTML5 `audio` element is supported using `AAC LC` audio in an `MP4` container.
audio-030	REQUIRED	N/A ⬍	Tests whether media specified via `source` elements is recognized:
video-010	OPTIONAL	N/A ⬍	Tests whether the HTML5 `video` element is supported using `WebM` video (VP8 video with Vorbis audio).
video-020	OPTIONAL	N/A ⬍	Tests whether the HTML5 `video` element is supported using `MP4` video (H.264 video with AAC-LC audio).
video-030	OPTIONAL	N/A ⬍	Tests whether media specified via `source` elements is recognized:
video-040	OPTIONAL	N/A ⬍	Tests whether poster images are supported the HTML5 `video` element:
video-050	OPTIONAL	N/A ⬍	Tests whether WebVTT captions are supported in the HTML5 `video` element:
video-060	OPTIONAL	N/A ⬍	Tests whether TTML captions are supported in the HTML5 `video` element:
video-070	OPTIONAL	N/A ⬍	Tests whether WebVTT subtitles are supported in the HTML5 `video` element:
video-080	OPTIONAL	N/A ⬍	Tests whether TTML subtitles are supported in the HTML5 `video` element:

EPUB Indexes (PD available)

Ebook indexes: human-crafted tools for guided content discovery

Better navigation
     Index expand/collapse
     Access index group
     Pop-up contextual information
New features
     Range highlighting
     Interactive generic cross-references
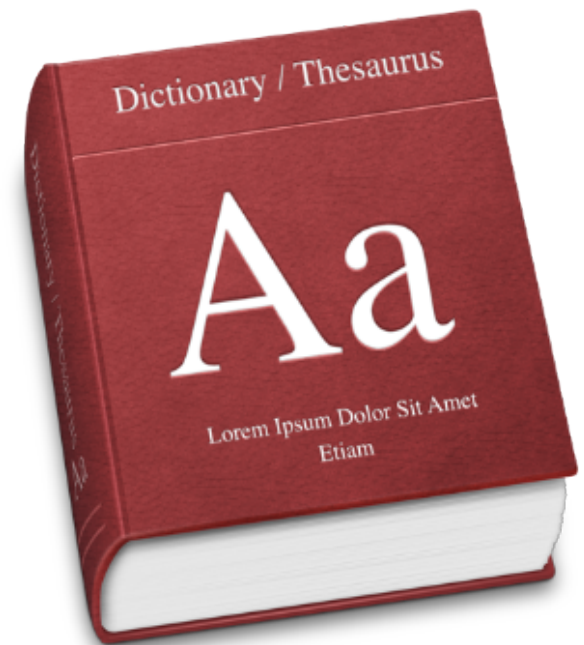   Index filtering

http://idpf.org/ongoing

EPUB Dictionaries & Glossaries (PD Q3 2013)

- Typical "system-level" dictionary not sufficient
  - Children and levels of reading/understanding
  - Language learning
  - Specialized fields (law, medicine, etc.)

- Glossaries, Dictionaries,
    Bilingual Dictionaries,
    Thesauri: publisher opportunities

1. Read "as any other book"
2. Integrate as a lookup service
3. Semantics allowing accessibility and usability

http://idpf.org/ongoing

EPUB Advanced Hybrid Layouts (PD Q3 2013)

Imagine an EPUB that contains multiple renditions…

The Advanced Hybrid Layout (AHL) spec will enable:

1. Rendition Selection
    Select the rendition that best matches current context/preferences
2. Inter-rendition mapping
    Enable the user to move between renditions without loosing current reading position
3. Sub-page region mapping and navigation
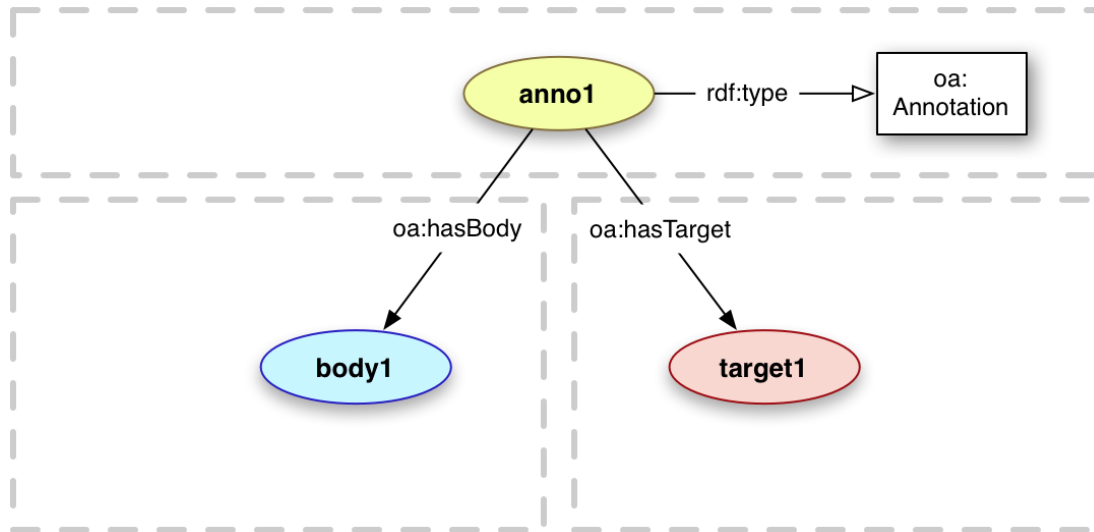   For comics and other graphically rich publication types

http://idpf.org/ongoing

Interoperable Annotations

Announcing: in collaboration with [W3C Open Annotation Community Group](#)

Open Annotations for EPUB

Project kickoff late June 2013

New standards

- EPUB 3.0.1
  - Minor revision focusing on spec bugs and reference updates
  - Fixed Layout EPUB (FXL) becoming normative part of 3.0.1

- ISO/IEC DTS 30135-1 (JTC - SC34, TC46, TC100/TA10)
  - Ballot currently ongoing
  - *Outcome intended to be identical to EPUB 3.0.1*

- W3C…

W3C Digital Publishing Interest Group

Charter draft at http://www.w3.org/2013/02/digpubig.html

"The goal of this Interest Group is to provide an in-depth and exhaustive overview of where the discrepancies between the Digital Publishing industry and the development of the Open Web Platform occur, backed with specific and well documented use cases and technical requirements."

EPUB in education

- LMS Integration, APIs (LTI et al)
- Formatting guidelines/profiles
    - Interactive materials
        - "Standard widget library"
- Annotations
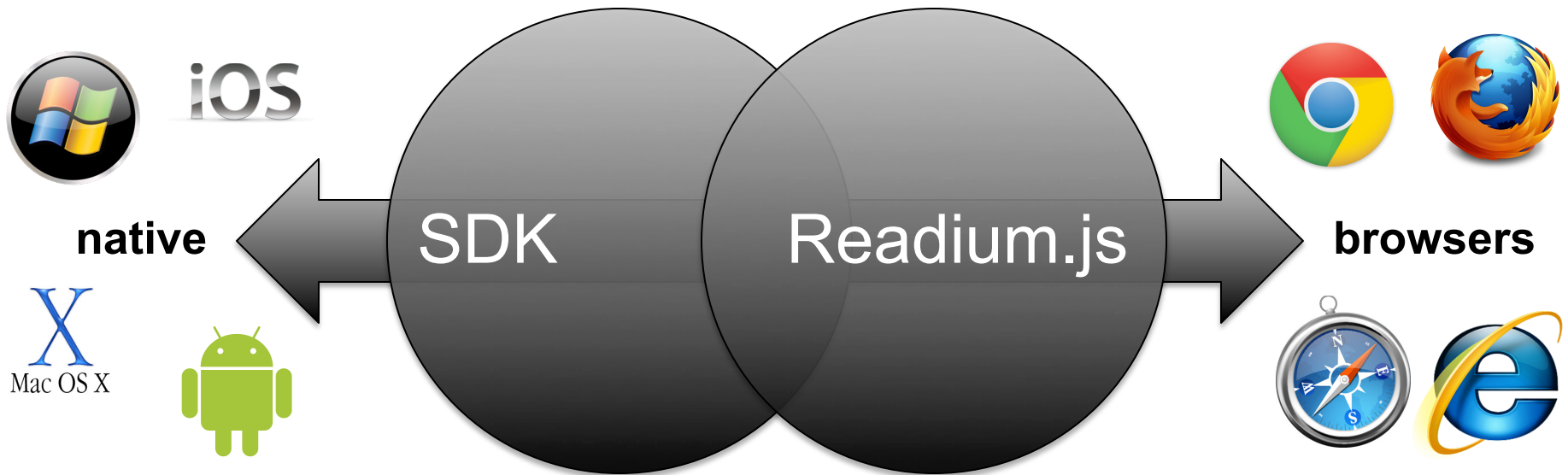- Remixing
- *Accessibility of all of the above*
    - *http://idpf.org/accessibility/guidelines/ under development*

Announcing: **EPUB in Education Workshop** in early fall
Co-organizers: Pearson & IDPF

<idpf>

- Reference Implementation as Chrome plugin
- 60000+ users
- Readium Foundation launched early 2013

Readium SDK and Web Components

http://www.readium.org

native

SDK

Readium.js

browsers

Supports all major features of the latest version of EPUB 3, including both dynamic pagination of reflow content as well as fixed-layout content, full HTML5 with JavaScript interactivity, audio, video, media overlays, and embedded fonts.

Thank you!

- IDPF needs your help and input on...
  - Reading System test suite
  - Current and future specifications
  - Readium development
  - Best practices and tutorials...

- All current activities at
  http://idpf.org/ongoing

Contact mgylling@idpf.org, bmccoy@idpf.org

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