

EPUB: The Next-Generation Digital Content Platform

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Agenda

- IDPF and Radium Foundation background
- EPUB Platform vision
- EPUB Platform status and roadmap
- Q&A



International Digital Publishing Forum

the global trade association for digital publishing
founded in 1999 (originally Open eBook Forum)

- 359 member organizations from 45 countries
 - 40% North America, 34% Asia, 21% Europe, 5% ROW
- Member organizations include publishers, service providers, e-retailers, reading system developers, libraries, educational institutions, government agencies, national and global industry bodies

IDPF Mission, Strategy, and Programs

- **Mission:** *foster global adoption of an open, accessible, interoperable digital publishing ecosystem*
- **Strategy:** develop (collaboratively) and promote EPUB as the universal accessible interchange and delivery format for digital publications based on the Open Web platform
- **Programs**
 - Standards development
 - Education, evangelism, community building, branding
 - Open source infrastructure instigation and development

Radium Foundation



- Created March 2013 as an independent nonprofit corporation
 - Mozilla / Apache / Eclipse / OpenStack model
- Radium Foundation mission: *develop production-level open source software to advance EPUB and the Open Web platform for publishing*
- Now over 50 members from around the world
 - Some key members: Hachette, Gallimard, Editis, Adobe, Google, Kobo, Ingram/VitalSource, HMH, Deutsche Telekom, IBM, NYPL, Bokbasen, Bluefire, TXTR, ACCESS, Sony, DAISY, Mantano, TXTR, Intel, Penguin Random House

Mobile Device Ubiquity Drives the Need for Native Digital Content



Open Web Platform

- The Open Web Platform is a comprehensive framework for rich, interactive, cross-platform content and applications.
- HTML5 is the cornerstone
- Separation of content and presentation is fundamental (CSS)



EPUB makes Web content
into reliable publications



ePUB

- Structured
- Navigable
- Accessible
- Metadata
- Packaged

EPUB Platform in a Nutshell

- The EPUB Platform is a set of open specifications, open source software, and industry collaborations that enable next-generation portable documents based on Web technologies that are
 - Accessible
 - Global-ready
 - Mobile-device optimized
 - Easily authored, manipulated, and interchanged
 - Integrated with HTML5 and other foundational building-blocks
 - Suitable for cloud and app-based consumption
 - Interoperable: not tied to a proprietary vendor solution

The EPUB Platform Has Many Elements

- **EPUB specification**
- **EPUBCheck content validator**
- **EPUBTest reading system test suite**
- **Readium rendering software**
- **DRM mechanisms**
- **Authoring tools and services** for content creators
- **Collection exposure and delivery mechanisms (OPDS)**
- **And more...**

EPUB and the Broader Open Web Platform Advance Via Cross-Organization Collaborations



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EPUB Platform Status and Roadmap

- Overall state of the platform and near-term goals
- Specific initiatives
 - EPUBTest
 - EDUPUB
 - EPUB 3.1
 - Radium projects
 - Global IDPF/Radium support
- EPUB-WEB vision

Global Situation for eBook Formats

- EPUB has been universally adopted for ingestion of trade eBooks from publishers
 - PDF did not play a significant role in the scale-up of the trade eBook business
- EPUB 3 w/ HTML5 and fixed layout support now rapidly gaining adoption in eBooks
- EPUB 3 is driving expansion of EPUB adoption beyond trade publishing to address requirements for mobile device and accessibility support

EPUB 3 Global Adoption

- Reading System support for EPUB 3 rapidly increasing
 - Apple iBooks, Google Play Books, Kobo, Adobe, OverDrive, VitalSource, TXTR, Sony, Tokyo Shoseki, Shogakukan, ACCESS, Voyager Japan, Mantano, ...
- EPUB 3 authoring tool options increasing
 - From high end (Adobe InDesign) to mass-market (Apple Pages, Ichitaro, Hangul WP)
 - Dozens of Publisher-focused workflow tools
 - Apple iBooks Author yesterday updated to support EPUB 3 export (v. 2.3)
- Japan, Taiwan, Korea have holistically adopted EPUB 3
- Major US/Euro publishers have moved to EPUB 3
 - Hachette, Elsevier, O'Reilly, ..
- EPUB 3.0 approved as an ISO Technical Specification (TS) via JTC/1 SC34
- DAISY has retargeted all tech development work from DTBook format to EPUB 3

Key Goals for 2015 and Beyond

- Finish upgrade of EPUB 2 Reading Systems and supply chains to EPUB 3
- Enable trade publishers to send one fixed-layout EPUB 3 to all channels globally
- Improve consistency of interactivity support in Reading Systems
- Enable delivering title-specific UX (e.g. custom navigation)
- Help eliminate authoring tool gaps
- Help publishers and stakeholders quantify achieved accessibility
- Expand EPUB Platform adoption into new segments of global publishing
 - Education, STM publishing, digital magazines, corporate publishing, ...

EPUBTest

- Test suite, testing infrastructure, and reporting methodology to systematically report on compliance levels of EPUB support in reading systems
- Test suite primarily developed by IDPF, infrastructure supported by DAISY, reporting methodology by BISG
- <http://epubtest.org>



EDUPUB: EPUB 3 for delivering native-digital EDU content

- **Complete general EPUB capabilities needed for EDU**
 - Annotations, widget API, discrete entities, multiple renditions
- **Integrate key standards for LMS integration**
 - IMS QTI, LTI, and Caliper Analytics
- **Develop EDU-semantic-enhanced profile of EPUB 3 content**
- **Facilitate rapid implementation (via Radium open source)**
- **Other holistic initiatives to promote deep interoperability (certification, ...)**
- **Collaboration between IDPF, IMS Global, W3C, Radium.org, and BISG**

EDUPUB 2015 Status

- **Full EPUB 3.01 conformance as minimum content baseline**
 - Embedded Scriptable Components (ESCs) a MUST
- **IMS LTI 1.2 as minimum application integration baseline**
- **Enhance existing content and application conformance**
 - **EPUBCheck** (content conformance)
 - **EPUBTest** (app conformance, linkage to IMS certification results)
- **EDUPUB semantic profile, annotations, multiple renditions, Caliper analytics, QTI**
 - On track for completion/rollout but not 2015 “MUST”s
- **EPUBCheck, EPUBTest available with initial EDUPUB support**
- **For more information see <http://idpf.org/edupub>**

EPUB 3.1

- Next incremental revision of EPUB specifications
 - Starting now, to be completed by mid-2016
- Will integrate EDUPUB enhancements, other modular extensions (Indexes, Dictionaries)
- Aiming to better support other vertical markets (comics, magazines, sci/pro/scholarly, ad hoc corporate documents)
 - Interactive page transitions, customizable navigation, dig signatures
- Aiming to improve alignment with base Open Web Platform
 - HTML serialization
- EPUB 3.1 intended to be the baseline for EPUB ISO International Standard (IS)
- Link to draft charter: <http://bit.ly/1FS67aG>
- All IDPF members invited to participate in EPUB Working Group and all work activities are done is public (mailing list: <https://groups.google.com/forum/#!forum/epub-working-group>)

Radium Current Projects Status



- **Radium SDK**

- Rendering engine for native mobile and device apps
- 14 vendors already shipping apps based on Radium SDK
- Adobe RMSDK now uses Radium SDK

- **Radium JS**

- Rendering engine for cloud and browser-stack apps
- Radium for Chrome – 460K active users

- **Radium DRM**

- Lightweight DRM system
- First supporting app recently shipped (Learning Ally)

Radium Projects Roadmap

- Near-term
 1. Radium SDK 1.x with more robust sample apps, improved conformance, a11y improvements, LCP DRM integration, etc.
 2. Finish Radium Cloud configuration of Radium JS
 3. Launch Radium DRM
- Rest of 2015
 1. Support EDUPUB capabilities in Radium JS and Radium SDK
 2. Add extensibility APIs to Radium SDK & Radium JS
 3. Begin additional projects TBD

Readium DRM Launch Elements

- Security analysis/enhancement
- Interoperability testing
- Robustness rules
- Key material provisioning
- IP policy
- Licensing program
- Project management
- Branding & Marketing
- Support

Scalable Model for New Radium Projects

- Stakeholders with interest in particular area propose to foster new project or sub-project, ideally with prototype / initial implementation already in progress
- Radium Foundation provides infrastructure and can receive earmarked financial contributions
 - Contributions can be used to hire consultants or provide specialized infrastructure
- Steering Committee of stakeholders guides the effort, reporting to Radium Board and members

Potential New Radium Projects

- Production-level mobile/desktop applications based on Radium SDK
- Authoring tool for EPUB 3 content
- Supporting OPDS (Open Publication Distribution System, an Atom-based protocol) within Radium Foundation
- EPUB Print-on-demand (POD) initiative
- EPUB Accessibility Checker initiative

Supporting IDPF/Radium Activities Globally

- To help increase awareness and accelerate adoption the IDPF and Radium Boards have agreed to seek to foster regional headquarters / R&D labs on a global basis
- We anticipate launching our first center in 2015, with IDPF and Radium Europe headquartered in Paris, France
 - A consortium of stakeholders including the French government Ministry of Culture, Ministry of Finance, French Publishers Association, and others are providing significant financial support to enable this
- We would like to start one or more Asian centers in the near future

EPUB-WEB: a Long-Term Vision of IDPF and W3C to Unify EPUB and the Web

- The next generation portable/packaged document format

EPUB-WEB



- Publishers gain access to all Web devices
- Users gain the capabilities of on-line just-in-time content (when connected)
- Web content creators gain enhanced formatting capabilities
- Features flow seamlessly between on-line and off-line

Benefits of Participation in Development of the EPUB Platform

- Accelerate technology development and adoption
- Faster innovation of products and services with a global reach
- Reduce R&D and production costs for each individual organization
- Maximize impact and benefits by participating rather than staying on the sidelines

Thank You!

<http://epubzone.org>



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