

Tuesday, June 2nd

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DIGITAL PUBLISHING SUMMIT - READMAGINE 2020

THE FUTURE OF THE EPUB
STANDARD AFTER THE SURVEY
ORGANIZED BY THE W3C

EPUB 3 IS HERE TO STAY, ***BUT NOT DONE YET***

- ▶ EPUB is widely used around the world for digital publications
- ▶ There is desire across the universe of implementors to ensure the future of EPUB and that it is backwards compatible
- ▶ EPUB could use:
 - ▶ Some improvements to make better experiences for more content types
 - ▶ Better implementations so that more features are supported
 - ▶ Better understanding across the ecosystems

W3C EPUB SURVEY BACKGROUND

- ▶ PBG, CGs and PWG wanted to figure out what publishing needed next for international standards
- ▶ Survey was conducted during the month of February 2020
- ▶ More than 250 people responded from around the world
- ▶ 85 questions with many possibilities for written answers
- ▶ Covered questions relative to: use of EPUB, features, challenges, for readers, for reading system engineers, for education, for accessibility
- ▶ All questions were optional

SURVEY DEMOGRAPHICS

- ▶ Many people answered from several perspectives

ANSWER CHOICES	RESPONSES	
Trade Publisher	36.77%	57
Education Publisher	26.45%	41
Professional Publisher	20.00%	31
STEM Publisher	8.39%	13
Journal Publisher	9.68%	15
Magazine Publisher	5.16%	8
Governmental Publisher	4.52%	7
Corporate Document Publisher	4.52%	7
Author	18.71%	29
Reader	43.87%	68
Student	7.74%	12
Conversion Vendor	12.26%	19
Reading System Engineer	11.61%	18
Ebook Developer	45.81%	71
Reading System/Retailer Employee	9.68%	15
Other (please specify)	24.52%	38
Total Respondents: 155		

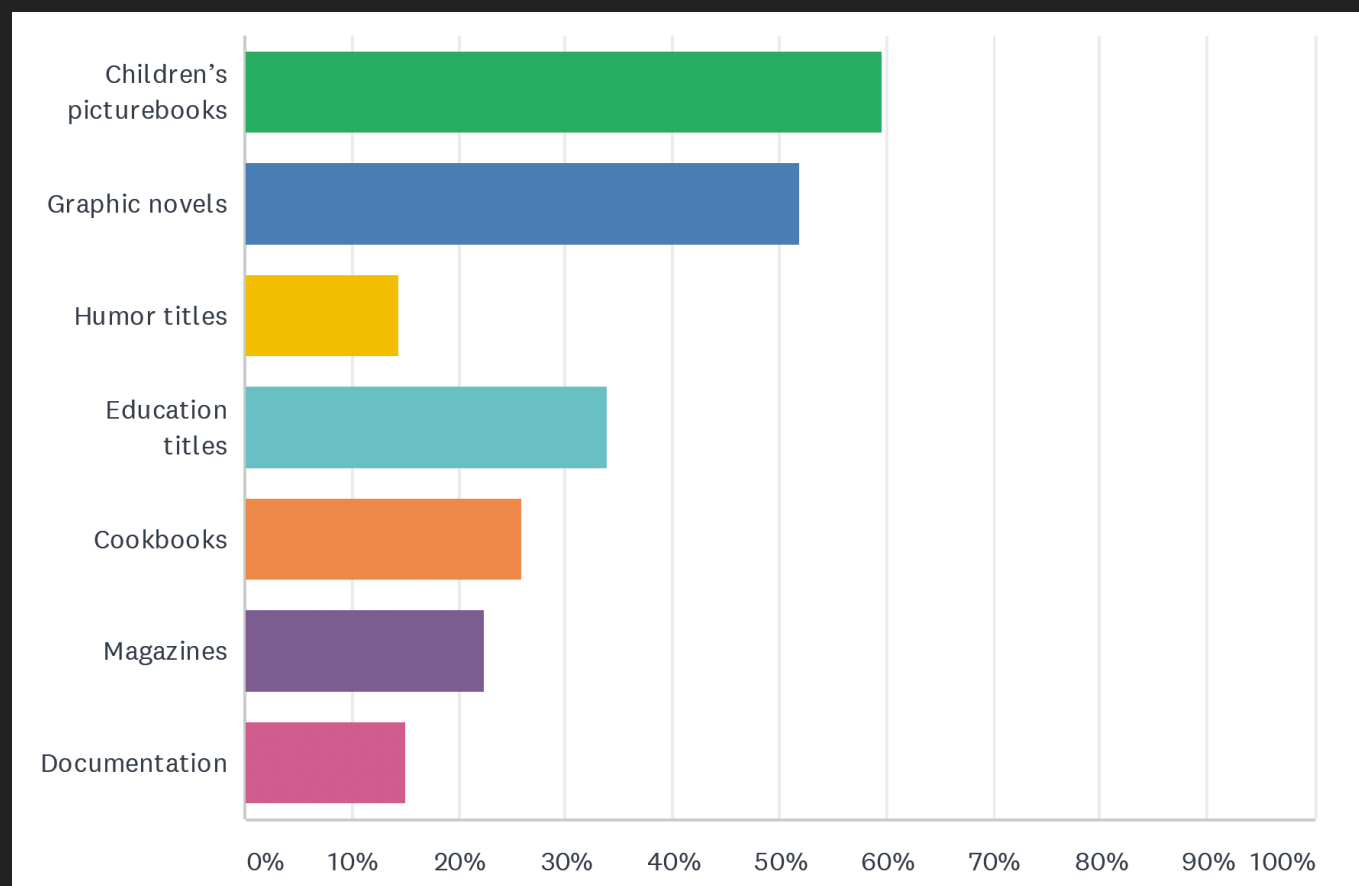
from 155 responses

BIG TAKEAWAYS

- ▶ EPUB 3 is well adopted, but needs to be more fully implemented by both content creators and reading systems
- ▶ People want more features and more support for them
- ▶ More education about EPUB is needed, especially for interoperability and accessibility
- ▶ People get their information about EPUB from a variety of sources
- ▶ Lack of reading system support is a big issue for content producers
- ▶ EPUB 2, EPUB 3 and PDF are all still used as well as some proprietary formats
 - ▶ 72% publish just EPUB 3
 - ▶ 20% publish both EPUB 2 and EPUB 3
 - ▶ 51% support an EPUB 2 backlist
 - ▶ 55% still create PDF ebooks

EPUB TODAY - FIXED LAYOUT USED FOR

- ▶ FXL is used for many titles beyond just ones that extend to the bleed of the page



from 139 responses

- ▶ Why is it so prevalent?
 - ▶ Inability to have images extend to the bleed in reflow
 - ▶ Too expensive/hard to relayout books
 - ▶ Authors and designers think this is the best experience
 - ▶ Lack of media queries and modern CSS support

EPUB TODAY - DESIRE TO MIX FXL AND REFLOW

- ▶ 60% of respondents would like to mix FXL and reflow sections in the same book
- ▶ For what kinds of content?
 - ▶ Kids books
 - ▶ Magazines
 - ▶ Cooking and craft books
 - ▶ Art and coffee table highly illustrated books
 - ▶ Comic or Manga and text hybrids
- ▶ This feature is already in EPUB, but isn't yet well supported...

EPUB TODAY - HOW EPUB GETS MADE

- ▶ Content starts from: Mostly InDesign, but also Word and PDF, HTML and XML
- ▶ Processes used:
 - ▶ 60% use a custom tool/process, but also InDesign export, and relatively few (21%) use offshore partners
- ▶ Common editors used:
 - ▶ Sigil, OxygenXML, BBedit, Text Editor, Notepad++, VSCode, Atom, Dreamweaver, Calibre, Brackets
- ▶ Most common testing tools:
 - ▶ Apple Books, ADE, Kindle Previewer, Kobo, EPUBCheck, (Thorium is also good!)

EPUB TOMORROW - DESIRED FEATURES

- ▶ The top features 175 people want to see implemented:
 - ▶ Dual language support (51%)
 - ▶ Notifications for readers when content is updated (46%)
 - ▶ Background images (46%)
 - ▶ Testing/Practice test scoring (43%)
 - ▶ Map integrations (41%)
 - ▶ Full bleed images (41%)
 - ▶ Fill-in worksheets (39%)

EPUB TOMORROW - SCRIPTING

- ▶ 73% of respondents would use scripting if it was supported
- ▶ The top things they would use it for:
 - ▶ User interaction such as quizzes
 - ▶ Charts and graphics
 - ▶ Interactive images
 - ▶ Sorting tables
 - ▶ Interactivity for children's books
 - ▶ Map integration

EPUB TOMORROW - EDUCATION FEATURE NEEDS

- ▶ Interactivity
- ▶ Reliability
- ▶ Ability to print
- ▶ MathML
- ▶ Accessibility as a general issue is more critical for education uses
- ▶ Ability to share results and access local storage
- ▶ Integration of EPUB into university workflows

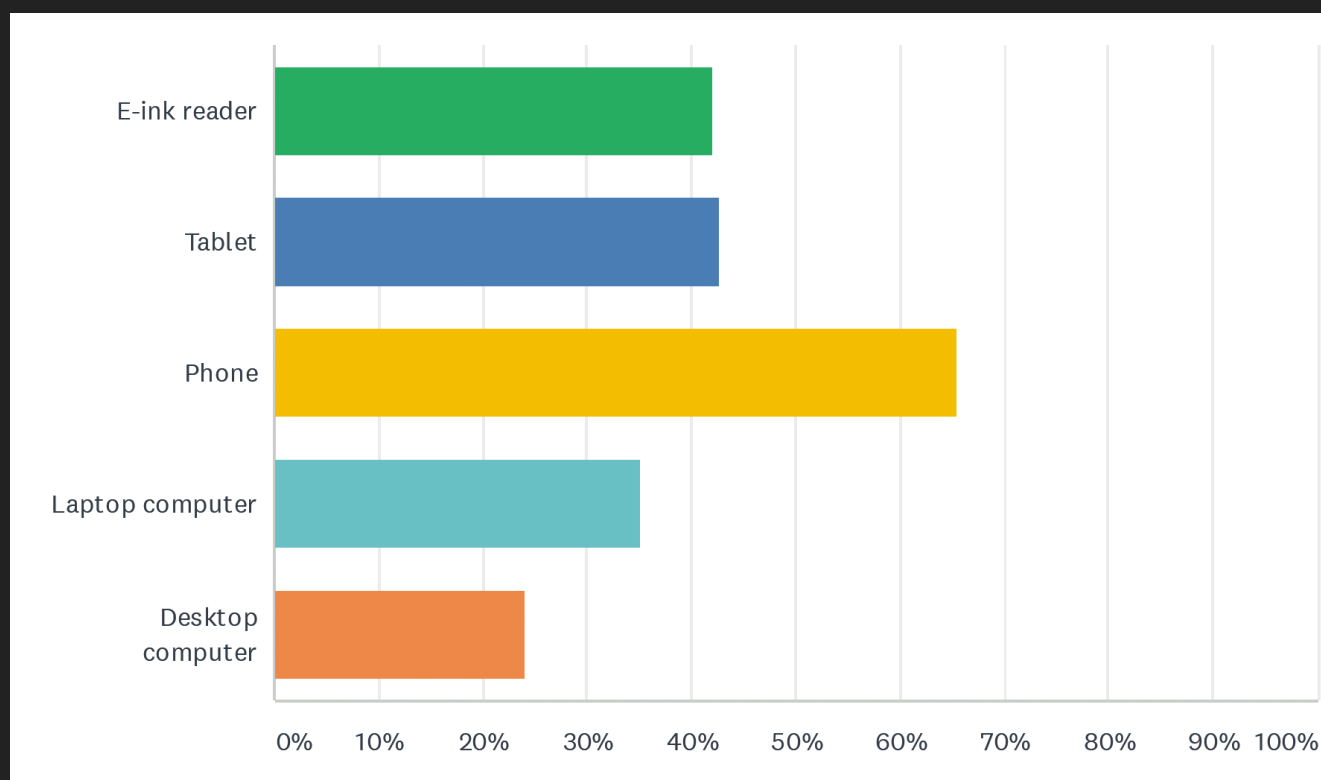
EPUB TOMORROW - EDUCATION INTERESTS

- ▶ 67% of respondents considered distributing EPUB to students
- ▶ 85% were concerned with the accessibility of the documents they were distributing
- ▶ 77% considered the ability to open an EPUB without a dedicated reading system very important
- ▶ Growing interest in dynamic publications that can be updated by the publisher automatically

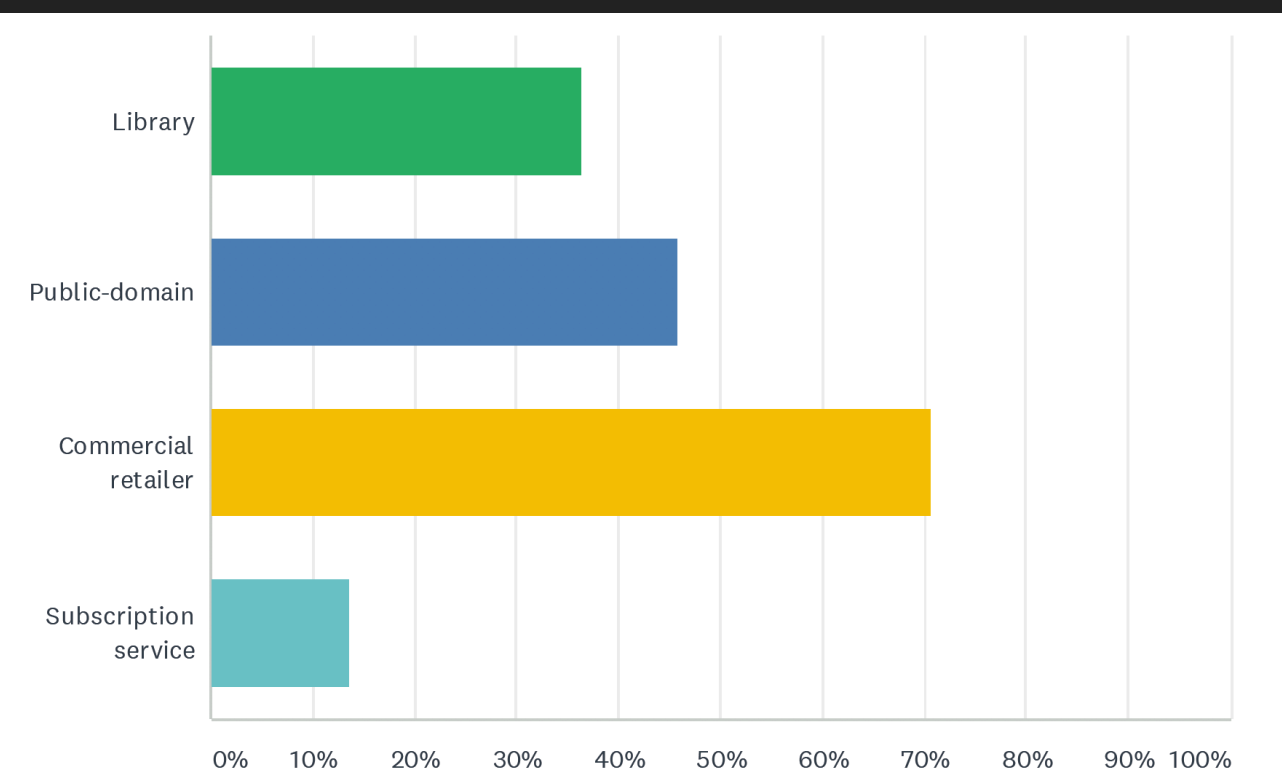
FROM READERS - HOW PEOPLE READ

- ▶ Devices used for reading: preference is high for phone

- ▶ How books are acquired: public domain is big



from 145 responses



from 140 responses

- ▶ Many people (74%) use multiple reading systems

FROM READERS - WHAT DRIVES THEM CRAZY

- ▶ Typos, bad formatting, generic formatting, bad typesetting
- ▶ Poor image quality
- ▶ Lack of linking or bad links
- ▶ Lack of pagination or not matching print
- ▶ Bugs and slowness in reading systems
- ▶ Lack of accessibility
- ▶ Inconsistent quality across publishers
- ▶ That many publishers think of ebooks as an afterthought

FROM READERS - TOP FAVORITE FEATURES

- ▶ Easy navigation
- ▶ Changing font sizes
- ▶ Searching
- ▶ Being able to enlarge images
- ▶ Bookmarking
- ▶ Changing brightness
- ▶ Footnotes that pop-up
- ▶ Being able to organize library

FROM READING SYSTEMS

- ▶ Hardest features to implement:
 - ▶ Media Overlays, Fixed Layout rendering, JavaScript engines, OPF Parsing, Media support, MathML
- ▶ 83% of reading system developers want more information on conformance in the EPUB specification
- ▶ 95% would like to see tests and would help build them
- ▶ 37% of reading systems reported that they display accessibility metadata to users when it's delivered by publishers

FROM READING SYSTEMS

- ▶ Many reading system providers modify content on ingestion
- ▶ Common reasons include:
 - ▶ Converting files and optimizing images
 - ▶ Simplifying code for performance
 - ▶ Inserting pagination and navigation features
 - ▶ Enabling device-specific features like annotations
 - ▶ Processing embedded media resources
 - ▶ Applying DRM

ON ACCESSIBILITY

- ▶ 48% of respondents use ARIA roles in their EPUB files
- ▶ 70% believe their HTML is navigable by screen readers and keyboard
- ▶ 58% include accessibility metadata in their EPUB files, with 18% sending it in their ONIX metadata (38% are considering it)
- ▶ 57% provide alt text for non-decorative images, with 33% including image descriptions
- ▶ 63% include page-list
- ▶ 78% of respondents were aware of the EPUB Accessibility specification and 51% are using it
- ▶ Fixed Layout is understood to be mostly inaccessible—almost no content creators put effort into improving accessibility of FLX titles
- ▶ 67% experience inconsistent levels of accessibility support across reading systems

INTERESTING TIDBITS

- ▶ Many people think it is important for EPUB to be able to be easily opened and read
- ▶ Managing web links and link rot is a challenge
- ▶ Many people publish to the lowest common denominator
- ▶ Testing/QA faces insurmountable challenges due to inconsistencies in testing platforms, and different behaviors between sideloading/emulators and “for-sale” content
- ▶ Many people are unaware of all that EPUB is currently capable of delivering—more education is needed

HOW PUBLISHING@W3C IS ADDRESSING

- ▶ New EPUB 3 WG being chartered to focus on getting EPUB 3 to a rec track spec with full conformance testing and interoperability
- ▶ Publishing CG and EPUB CG are being merged into a new Publishing CG to focus on incubating new ideas
- ▶ Publishing BG is shifting focus to discussing business needs, education and outreach and supporting the EPUB 3 RS Bug GitHub Repo
- ▶ Publishing Steering Committee of the chairs across our groups to coordinate efforts

HOW TO GET INVOLVED

- ▶ Read more technical detail about survey results (<https://www.w3.org/blog/2020/05/publishingw3c-epub-survey-results/>)
- ▶ Join the W3C Publishing Community Group
- ▶ Join the W3C as a member and join the PBG and/or the new WG
- ▶ Put your RS bugs into the EPUB 3 Bug GitHub Repo (<https://github.com/w3c/epub-rs-bugs>)
- ▶ Send your ideas to the Publishing@W3C SC public-publishing-sc@w3.org

Q&A SESSION

THANK YOU!!

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