

Purpose

The Publishing Business Group is considering options to improve the effectiveness and value of the EPUB Test Grid. This (reasonably) short overview provides a perspective on the history, current approach and potential options available.

This initial draft is written from the perspective of the Book Industry Study Group, one of the participants in the development and publication of the current version of the grid. Other perspectives, notably those of the DAISY Consortium and legacy IDPF members, may also be useful in shaping a discussion based on these notes.

Summary

The Book Industry Study Group (BISG), the DAISY Consortium and the Publishing Business Group of the w3c are considering options to update and improve the value provided by an online resource generally known as the “EPUB Test Grid”.

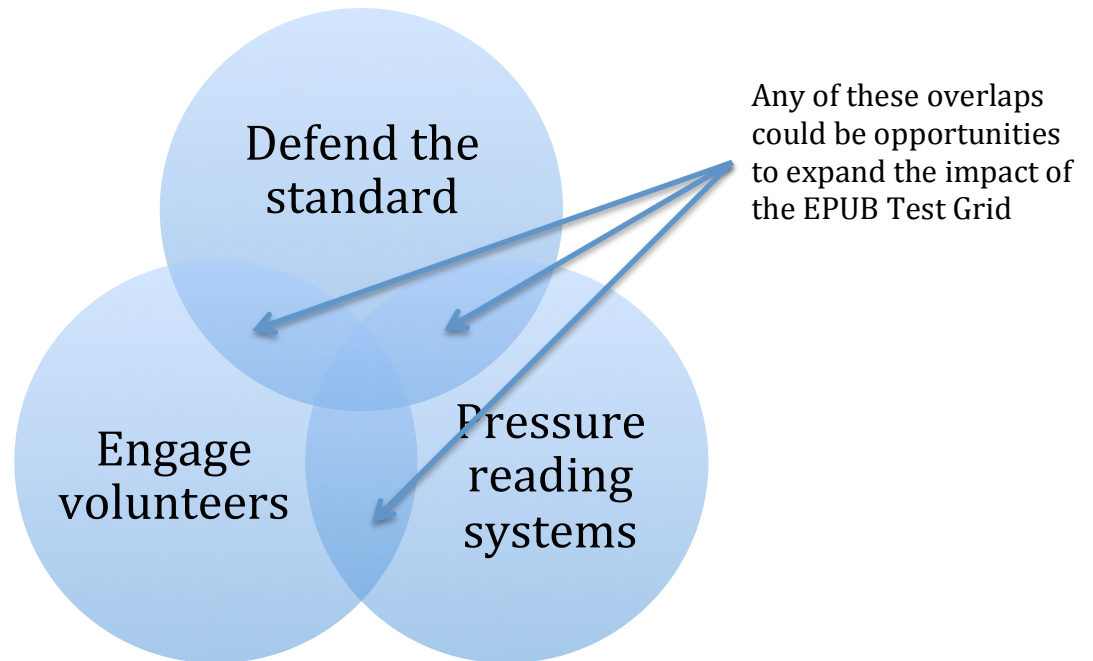
Upkeep has fallen off in the past two or more years, leaving sections incomplete or out of date. In the past, BISG, DAISY and IDPF all contributed to its creation and maintenance. At this point, DAISY is performing the bulk of all new work, largely in the accessibility area.

Initial conversations focused on how the prevailing model might be extended by hiring resources at BISG, seeking more volunteers, or changing the model for testing, which relies on an approach that might be seen as cumbersome.

Over time, the conversation has broadened to ask what we want to achieve in creating and maintaining the test grid. The current incarnation was built in 2012 to help the publishing community understand “what features of EPUB 3 are currently usable on which devices, apps, and reading systems.” Today, we could draw from a broader list of digital reading objectives:

- To defend the open standard by demonstrating that EPUB 3 and its successor specifications can deliver functionality that publishers have assumed is available using only proprietary approaches
- To influence device, app and reading systems providers to make best use of the EPUB standard, improving capabilities and reducing performance differences over time
- To engage a broader community of volunteer advocates in testing and reporting on functionality across devices, apps, reading systems

The first bulleted item in some ways subsumes the 2012 goal, but it does so by showing what the standard could be, rather than documenting primarily where it is not implemented. Even if the 2012 goal remains the primary purpose, more and perhaps different work may be needed to communicate functionality to the broader publishing community.



These potential objectives are not mutually exclusive, and much of the work done for any one goal would benefit the others. What would differ, and what we would need to plan, is what happens with the information after it is generated. Details are provided in the sections that follow.

Background

The online resource currently available at www.epubtest.org started as a matrix or grid created and published by BISG volunteers. First developed to show what features of EPUB 2 worked on various devices, the grid was expanded over time to address different reading platforms and operating systems.

EPUB 3 was confirmed by IDPF membership as a Recommended Specification effective October 2011. In August 2012 BISG formally endorsed EPUB 3 as the “accepted and preferred standard for representing, packaging, and encoding structured and semantically enhanced Web content — including XHTML, CSS, SVG, images, and other resources — for distribution in a single-file format.”

The endorsement went on to note:

It is understood that a period of transition is necessary for full implementation of the EPUB 3 standard. To guide industry stakeholders through the transition, BISG published an **EPUB 3 Support Grid** in June 2012. The Grid is a comprehensive reference tool for understanding what enhancements and features of EPUB 3 are currently usable on which devices, apps, and reading systems. Due

to the rapidly changing nature of EPUB 3 support, the Grid will be frequently updated in the first year of publication.

The policy statement that endorsed EPUB 3 also included a concluding paragraph “related to voluntary standards”:

In keeping with voluntary standards and recognizing that specific business agreements between trading partners are often the prevailing and practical solution, the actual timing of implementation and format of communications surrounding any standard are ultimately determined between trading partners.

Documentation of the process leading to the creation of these policy statements is not available. A few things might be drawn from the statements themselves:

- IDPF and BISG both wanted to move the industry toward uniform use of EPUB 3
- BISG anticipated a focused implementation (“The Grid will be updated frequently in the first year of publication”), but it may not have planned for a process extending five or more years
- BISG recognized that it could encourage better practice, but it could not mandate use of the specification

Engaging BISG in this work in 2012 made sense, as the grid already existed in one form, and the U.S. was the leading market for digital reading. As digital reading has expanded, BISG’s role in maintaining the EPUB Test Grid is somewhat less clear, as it is the association responsible for standards and best practices in the United States, not globally.

Current Situation

The summary of devices, apps, operating systems and reading systems has not been updated in about two years. The list of tested devices, etc. was never complete or exhaustive, as much of the testing relied on volunteers who owned or had access to a given device or system. Major devices were generally tested, but not all combinations of hardware and software were assessed.

The number of volunteers actively testing reading devices and systems has declined over time. BISG receives a couple of inquiries a month, referring these to DAISY to set up accounts. The process established around 2012 required testers to submit their findings to the working group, which would review and approve publication of any results. The review step was created to minimize the likelihood that a manufacturer or reading platform would overstate their qualifications, or that a competitor would understate them.

It's a hard approach to scale, and the number of permutations of devices, apps and systems continues to grow. The last meeting of the BISG working group charged with EPUB Test Grid took place in June 2016, in advance of a webinar that was held subsequently to explain the purpose of the online resource. The notes for that meeting include several supplemental bullet points summarizing desired changes to the existing format for the EPUB Test Grid.

During this time, DAISY has continued to maintain results in the accessibility part of the grid. As noted earlier, DAISY provides the bulk of the updates and user support.

Option: Defend the open standard

A number of proprietary reading systems have promised functionality that EPUB 3 provides or largely provides, if publishers understand how to prepare files to take advantage of features in the system. The current approach points to that functionality, but it does so largely by listing a set of test modules that reading systems either support or fail to support.

EPUB was created to avoid the need for proprietary digital reading formats. EPUB Test Grid could be used as a tool to deliver information about the ways that an open specification delivers functionality that publishers have pursued using proprietary solutions. It can also be used to promote or recognize reference implementations that showcase best practice in the use of EPUB 3 and its successors.

To successfully defend the open standard, the Business Group, its partners or designees would need to develop a communication plan pointed at publishers and the developer community serving those publishers (whether on staff or outsourced). Persistent communication, road shows, industry recognition and featured sessions at industry events are all options that can be pursued.

Option: Influence device, app and reading system providers

There is anecdotal evidence that the Test Grid has motivated some providers to improve functionality in a variety of ways. This is useful data for the grid, but it is not clear how widespread its impact is. A review of the grid shows that, even three years after it was launched, the number of devices, apps and systems capable of substantially supporting core aspects of EPUB 3 was still limited, and implementation was far from uniform.

The second part of that observation is perhaps the more sobering. While full use of EPUB 3 is the important goal, publishers necessarily plan implementation based on the lowest common denominator. For many publishers, the absence of core functionality in a key platform or device takes it off the table for all systems. A near-term goal might be to define critical features and work to move primary or even all systems to uniform support for those features.

To move ahead here, the Business Group will need to work with both publishers and device/reading system providers to make explicit requests of both. This process would involve communications and policy management alongside testing and reporting. As with the “open standard” option, this is a more complex and potentially rewarding change effort.

Option: Engage a broader community

The testing approach implemented around 2012 is a somewhat static, hierarchical process that has not attracted an adequate number of volunteers. As the range of options for devices, apps and systems has increased, the need for a larger and more active set of testers has also grown.

If it were configured as an opportunity to more effectively (and perhaps task-effectively) contribute to a shared understanding of the potential and conformance of EPUB 3 files, the EPUB Test Grid could become a more useful tool to engage the broader developer community. This approach would expand the pool of testers and potentially improve the information provided to the publishing community.

To make this work, the existing ‘test, review and publish’ workflow may need to be reconsidered. A less top-down, more iterative approach may be appropriate. The advantages of a more open approach could include: greater participation; greater testing depth in core areas of functionality; and crowd-sourced perspectives on areas of significant interest.

Conclusion (tentative)

The prevailing approach to collecting and publishing results on the online resource (epubtest.org) has struggled to recruit volunteers, generate timely results, and influence the industry in areas critical to adopting and implementing EPUB 3. The Publishing Business Group can consider several ways to build volunteer participation, improve contributions and focus efforts on change efforts that enhance how and where EPUB and its successor formats are deployed.

To make that happen, the Business Group needs to first decide what problems, challenges or opportunities the Test Grid should solve. This overview outlines four such opportunities, but they are neither exclusive nor primary. Going forward, what is clear is also simple: choosing the right problem to solve shapes all other actions.

Submitted by Brian O’Leary (BISG) – May 30, 2017