EDUPUB
Forging an Open, Agile, Global, Interoperable Educational Ecosystem for the 21st Century

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The educational ecosystem is in the middle of a massive transition . . .
... from this ...
... through this ...
...to this.
Educational resources don’t just come neatly packaged in textbooks anymore.
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Students and teachers need a multitude of resources—books, chapters, articles, media, quizzes, exercises, models, data, and more—and they need to use them online and offline, alone or collaboratively, on whatever device they want.
How do we get all the moving parts to work together smoothly?
By removing friction through open, interoperable standards.
Getting that to happen—starting right now—is the mission of EDUPUB.
So what is EDUPUB, exactly? I’m confused.

Is it an organization? A standard? It’s for textbooks, right?
It’s not just about textbooks. It’s about all types of educational resources:

**Text** (books, chapters, articles, chunks, delivered on any device or platform),

**Media** (images, video, audio, interactives),

**Assessments** (quizzes, exercises, etc.),

**Metrics** (helping students and teachers gauge effectiveness and progress).
It’s kind of an organization, and kind of not.

It’s really a collaboration among existing organizations:

**THE EDUPUB ALLIANCE**

Currently a joint initiative of the **IDPF** (the EPUB family of standards), **IMS Global** (educational standards), the **W3C** (web standards), and **BISG** (Book Industry Study Group).
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Enabling educational content of all types to be reliably distributed and interchanged between a wide variety of devices and platforms.
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Connecting the ecosystem via standards like QTI (Question and Test Interoperability), LTI (Learning Tools Interoperability), and the Caliper Analytics Framework.

**IMS Global** (educational standards), the W3C (web standards), and BISG (Book Industry Study Group).
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Providing the Open Web Platform standards—XML, HTML, HTTP, CSS, and many others—that form the foundation for today’s technology for communication and interchange.

the W3C (web standards), and BISG (Book Industry Study Group).
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**Spreading the word about EDUPUB and educating all its stakeholders on how and why to use it.**

**BISG (Book Industry Study Group).**
And who exactly are those stakeholders? What would EDUPUB do for them?
Publishers

Economies of scale.

Flexible sourcing and staffing.

Consistent presentation across devices.

Eliminate variant products for different platforms.

Real innovation, not reinventing wheels.
Educators

Easy LMS integration.
Assessments, outcomes, & analytics.
Content is easily repurposeable.
Facilitates adaptive learning.
Easy to retrieve and deploy content from multiple sources.
Learners

Richer learning experiences.
Responsive to learning style & preferences.
Accessibility.
Online or offline, laptop, tablet, phone.
Improved learning outcomes.
Affordability.
Platform Providers

Faster development based on known, consistent format.

Easier to support.

Increased volume from publishers.

Easier integration of content.

Device independence.

Expanded market.
It’s not as much a standard as a confederation of standards, with specifications to enable them to work together well.

The first, most concrete example: **THE EDUPUB PROFILE OF EPUB 3.**

Specs for how to create an EPUB 3 that is optimized for education and interoperability in the educational ecosystem.
OWP: The Open Web Platform

HTML5
XML
CSS
SVG
MathML
ARIA
and
many
others

EPUB 3
Container
Package
Metadata
Content Docs
Resources
(images, fonts, scripts, media)
Media Overlays
Structural Semantics
etc.

EDUPUB
A profile of EPUB 3 optimized for education.
It IS an EPUB.
So how is an EDUPUB different from a plain-vanilla EPUB 3?
An EDUPUB conforms to certain specifications for document structure, vocabulary, and metadata that optimize it for education.

And the EDUPUB initiative has prompted or accelerated new aspects of the EPUB 3 spec that are useful in lots of contexts, not just education.
Features of EDUPUB Documents

Defines a **teacher edition**, a superset of the student edition with teacher-specific content, and a **teacher guide** that is supplemental.

Requires use of `<section>` for structure, with **strictly ranked `<h1>`-`<h6>` headings**.

Recommends **page break markers** when there is a corresponding print or paginated rendition.

Defines **Distributable Educational Objects**.

Requires **full, linked toc nav** document.
EDUPUB Structural Semantics

Expands **EPUB Structural Semantics** to provide values of `@epub:type` for educational content and **recommends their use** in EDUPUBs. Examples include expanded terms for frontmatter, bodymatter, and backmatter sections; for `<asides>` like case study, help, notice, pullquote; many terms for **Testing** (e.g. types of problems, assessments, practice sections, etc.); and terms for **Learning Objectives**.
Metadata in EDUPUB

Requires `<dc:type>edupub</dc:type>.

Uses `schema.org` properties for accessibility and educational metadata.

Recommends, but does not require, use of these properties and associated vocabularies: EDUPUB accommodates differences between regions and contexts (school, higher ed, prof/tech).

Exception: EDUPUB requires identification of all accessibility features.
Additions to EPUB 3 Spec

Need for Interactive Widgets accelerated development of **EPUB Widget** spec.

Need for Distributable Educational Objects prompted **EPUB Distributable Objects** spec.


Need for educational vocabulary prompted **expanded EPUB Structural Semantics**.
EDUPUB Status

Currently in **public Editors Draft 2**.
Work is, and will be, **ongoing**.
Complete **implementable spec** by end of year.
EPUB **Structural Semantics** includes the current EDUPUB terms, but more will be added.
EPUB **Distributable Objects** spec will include packaging and integration specifications.
**Widgets, Annotations, & Multiple Renditions** specs are in the final draft stages.
Thanks!

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