VitalSource®

Who am I?



Rick Johnson

Co-founder &

Vice President of Product Strategy

VitalSource Technology

Board member of IMS Global
Board member of IMS Global Europe
Board member of IDPF (EPUB)
Co-Chair of W3C Publishing Business Group
Co-Chair of W3C Publishing Steering Committee
3 International Patents on ebook distribution technologies



Not another one of those talks...



iPad → 16:34 79% ■

Webb will be the largest telescope ever placed in orbit. To get this huge telescope into space, it will have to be folded up inside the rocket that carries it from Earth. It will unfurl as it nears its destination, the mirror unfolding and the sunshield spreading like wings.

With its infrared vision, Webb will be able to see light from vast distances that has been stretched as it travels across the expanding fabric of space – a process known as "redshifting."

This will enable scientists to see the light from the first

he light from the first galaxies to form in the early universe - the first flicker of stars that formed after the Big Bang.

Hubble has seen the adult, teenage and child galaxies of the universe, but Webb will see the cosmos' toddlers and infants.

Webb's infrared view will allow us to see through opaque clouds of gas and dust in our own galaxy to objects within, like newborn stars and dusty disks forming new solar systems, expanding and deepening our knowledge about how stars and planets develop.

And Webb's instruments will be able to analyze the light from planets around other stars, allowing us to search for traces of water vapor that could indicate the presence of lifegiving oceans. Webb's vision will be able to detect features

Gallery 5.7 Webb Science Targets



A simulated image gives a hint of what deepfield images will look like with Webb. Far-distant galaxies reveal new galactic populations.







in the atmosphere of a planet that could show biological activity.

Webb's launch is scheduled for 2018. And despite the high expectations for the telescope, the true excitement will come from the discoveries Webb makes that no one planned. When Webb takes its place among the stars, it will give astronomers an unprecedented tool to explore the cosmos. The greatest science it reveals may – as with Hubble – open avenues to questions astronomers have not yet thought to ask. The true power of Webb may be its potential for unbounded, unexpected discovery.

Reading



The Act Learning

"THE ILLITERATE OF THE 21ST CENTURY WILL NOT BE THOSE WHO CANNOT READ AND WRITE, BUT THOSE WHO CANNOT LEARN, UNLEARN, AND RELEARN." ~ALVIN TOFFLER



Learning content is changing...

... new requirements need new approaches



Learning content is changing...

In Education

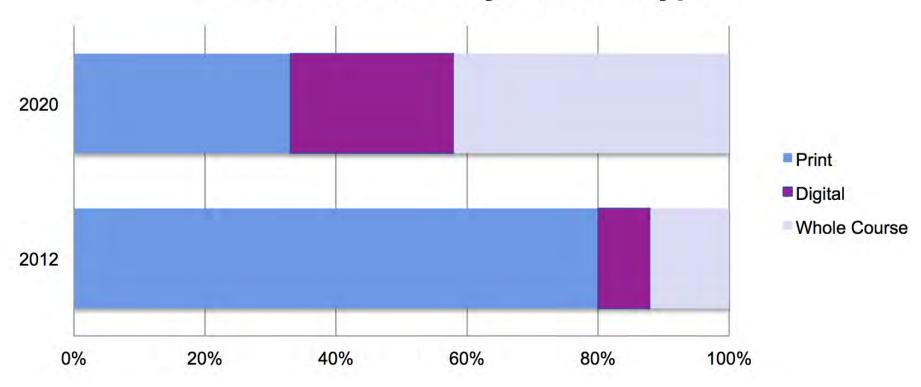




Learning content is changing...

In Education

Revenue Share by Product Type





Digital learning platforms that drive outcomes.



We Provide Solutions For:



Campus Stores



Publishers



Institutions



Executive Education



Associations & Certifying Bodies



Corporate Learning



Our Learning Platforms







#1 eText creation & delivery platform.

Personalized digital course experiences.

Engaging online business learning experiences.

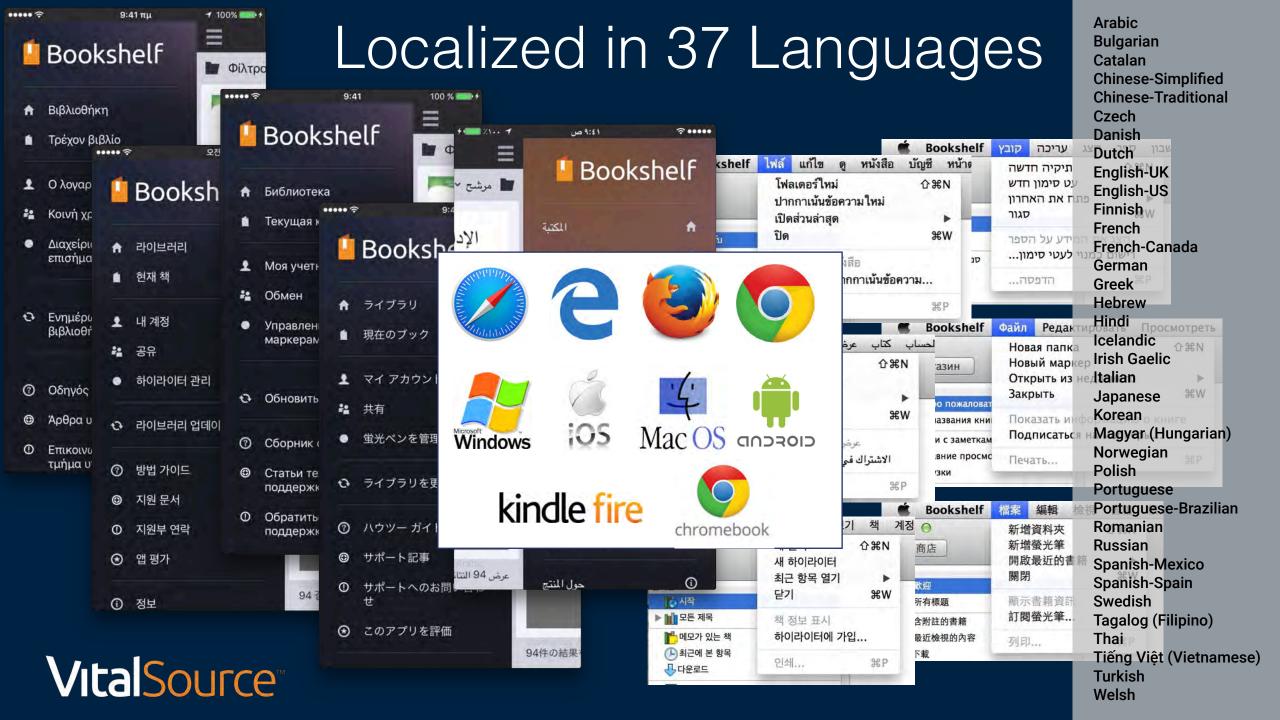
Author, analyze, & power subscriptions and collections.

Designed to improve student **outcomes**

Drive business **performance**, with learning at scale.



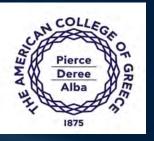






































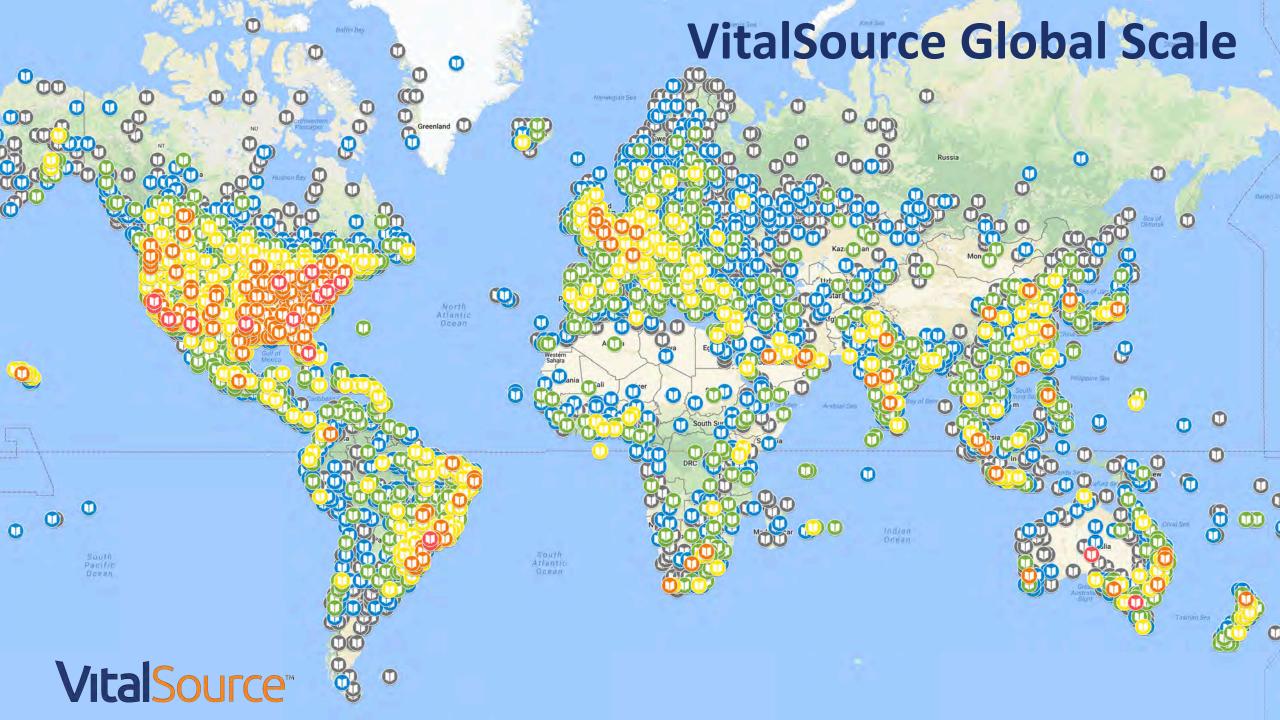




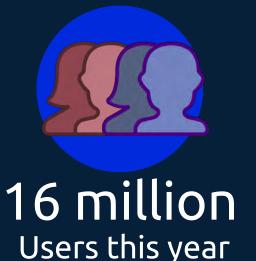








What do we do?





241 Countries
37 languages



3.5 billion
Page views

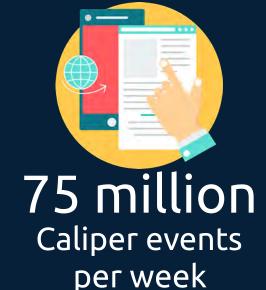


Books opened VitalSource per day



2.5 million

LTI Launches per week



The Simple Formula for Student Success

Great Instruction + Great Content + Quality Student Engagement

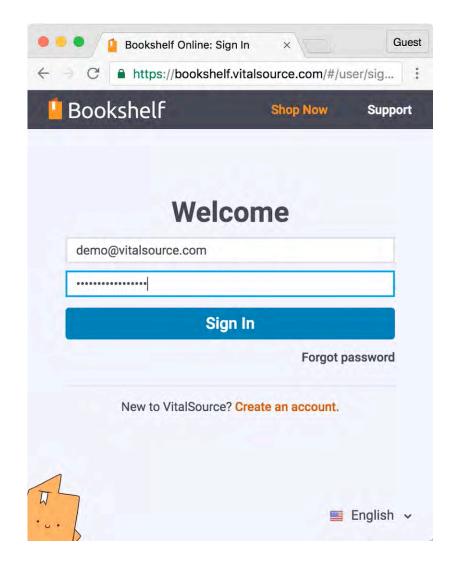
"We are in the midst of the greatest learning revolution in history. Technology will continue to enable a future where learning is inclusive and accessible to all, but teachers -- not tools -- will fuel this shift."

Michelle Pacansky-Brock

author of Best Practices for Teaching With Emerging Technologies



Content Analytics: Realtime Events



Learner

Book

Chapter

Did you notice all the data?

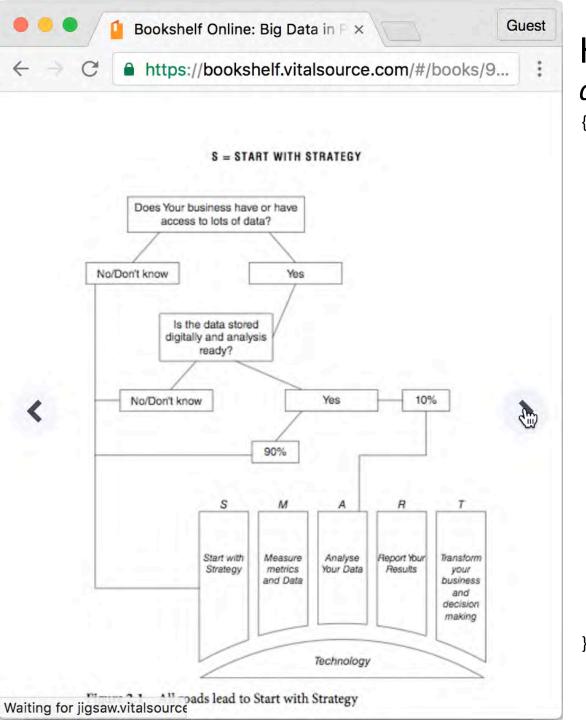
Logout

Login

Highlight

Page View

Note





Highlights annotationEvent: highlighted

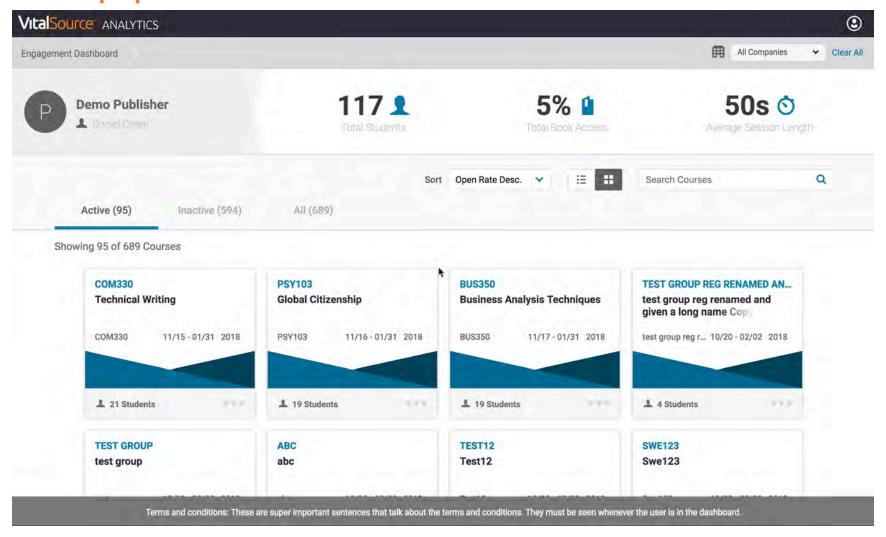
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```



What can **you** do with all of this data?

We built dashboards (of course!)

Support Collaborative Discussions

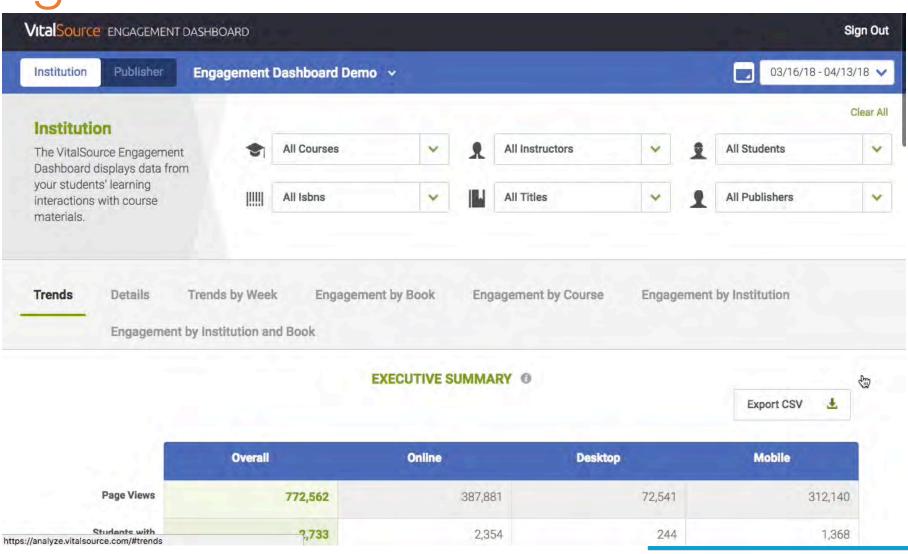


- Encourage students to access materials early
- Identify at risk students
- Gain insights into which content students find most challenging or most useful
- Provide better student coaching by understanding individual student engagement



Monitor Engagement

- University-wide engagement
- What books are used most?
- Platform preferences





VitalSource Data Feeds

Power your own analytical platforms.

Insight into Engagement

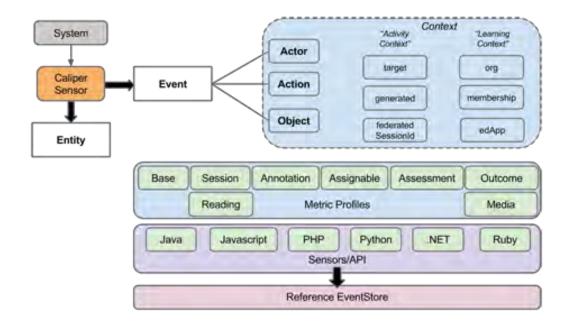
How student users are engaging with publisher content in Bookshelf—how often and at what points

Leverage your Internal Data

Join with your internal data for deeper insights

Standards-based Integration

Caliper-formatted data feeds for easy integration



VitalSource Analyze data feeds help universities and publishers power their own tools and platforms, unlocking new insights around student success.



Data Feed Delivery Options



More Relevant Interactions

Customize user interactions with the most up to date data, ensuring feedback relevancy.

Near Realtime Delivery



More Integrated User Experiences

Incorporate student learning interactions within your tool or platform for a more integrated user experience.

Data is pushed to your endpoint as soon as possible.



Caliper Formatted

Created by IMS, Caliper is the industry standard for transmitting learning interactions.



More Possibilities

With the most frequent, most granular learning data, what will you build? The possibilities are endless.



Data Feed Delivery Options

Periodic Delivery

Data is pushed to a shared location on a set schedule.



Simplified Processing

Gather and ingest large sets of data at your convenience.



Easy Integration

Simply download data from a shared location.



Portable Files

Data extracts can be used by a variety of systems from Excel to your data warehouse.



Simple Format

Extracts are simple, delimited flat files that can be easily used by a variety of systems.



IMS Caliper Delivery

The standard for delivering learning interactions.

VitalSource has been certified to deliver Caliper since October 2015.



Industry Standard

Created by IMS, Caliper is the industry standard for transmitting learning interactions.



Powerful Formatting

Based on JSON-LD, Caliper is both human readable and easily understood by machines.



Semantic Interoperability

Caliper prescribes a dialect for communicating learning interactions, ensuring consistent interpretation across systems.



System Interoperability

Caliper defines the structure of each data point, ensuring consistent integration and consumption across systems.



Engagement Data Overview

Learning events and metadata:

Event Types

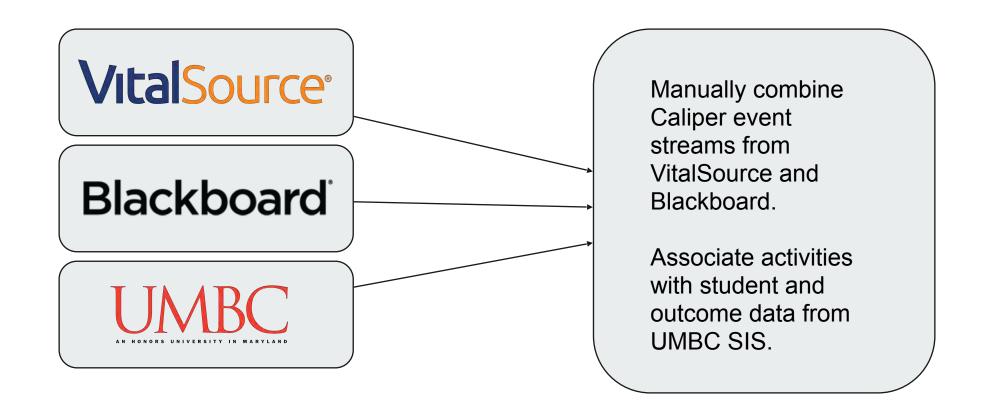
- Login
- LTI Launch
- View
- Print
- Note
- Highlight

- Bookmark
- Search
- Download
- Outcome
- Media
- Assignments

Base Metadata

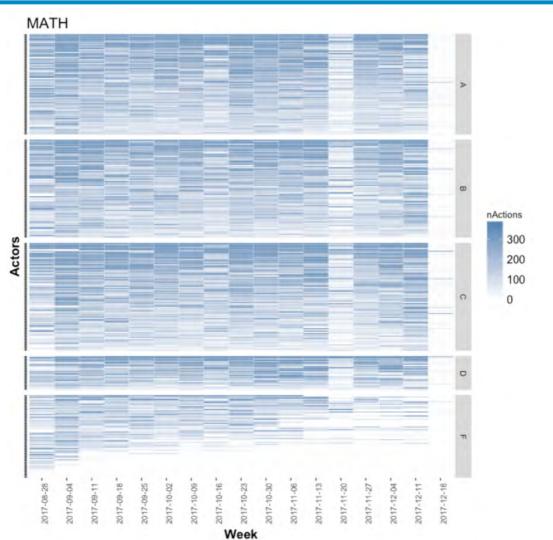
- User
- Book
- Time
- Page
- Device
- Platform

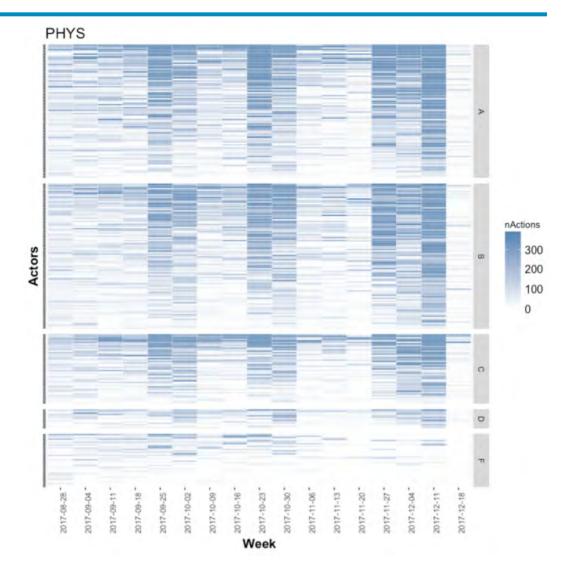
Let's do a study!!





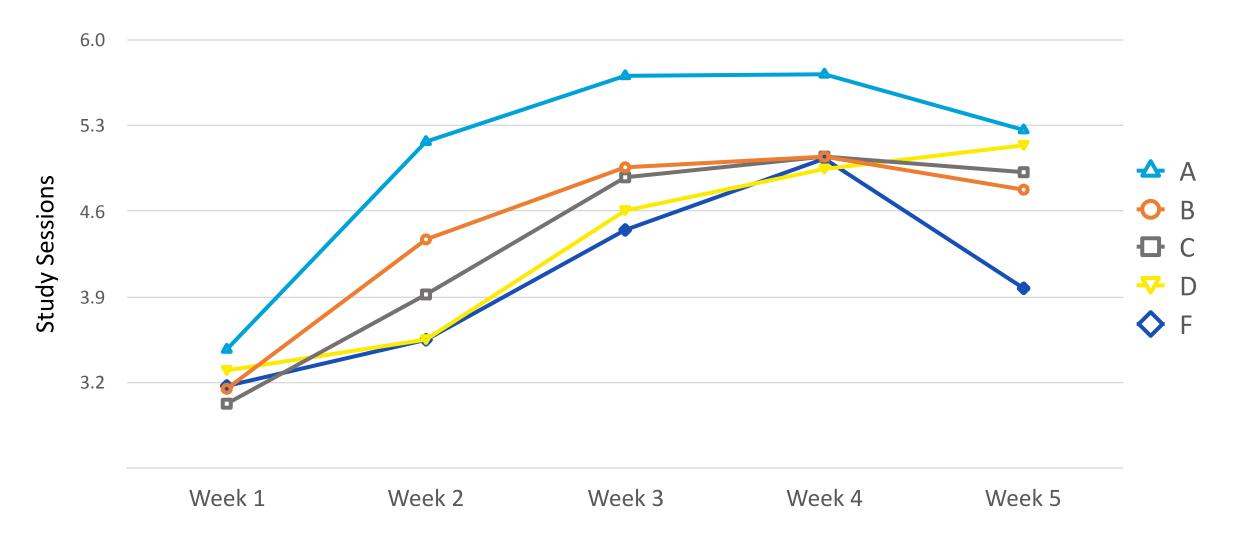
Let's do a study!!





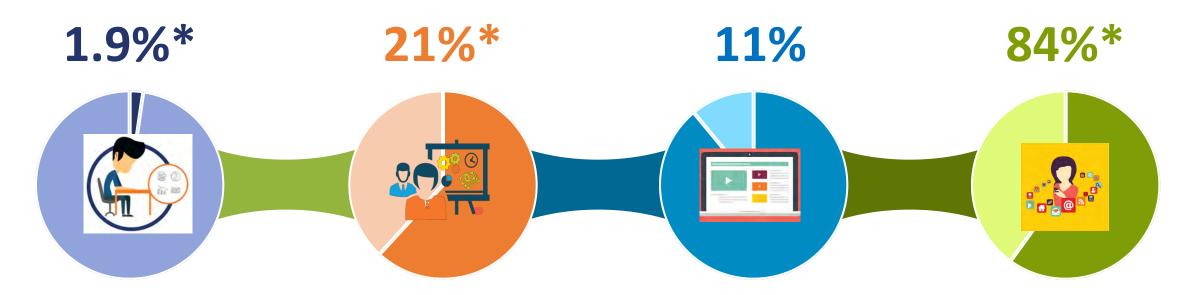


Engagement Predicts Outcomes





Impact on Student Achievement and Retention



Rise in GPA for a Math course

21 point increase in retention bringing overall retention and completion rate up to 94%

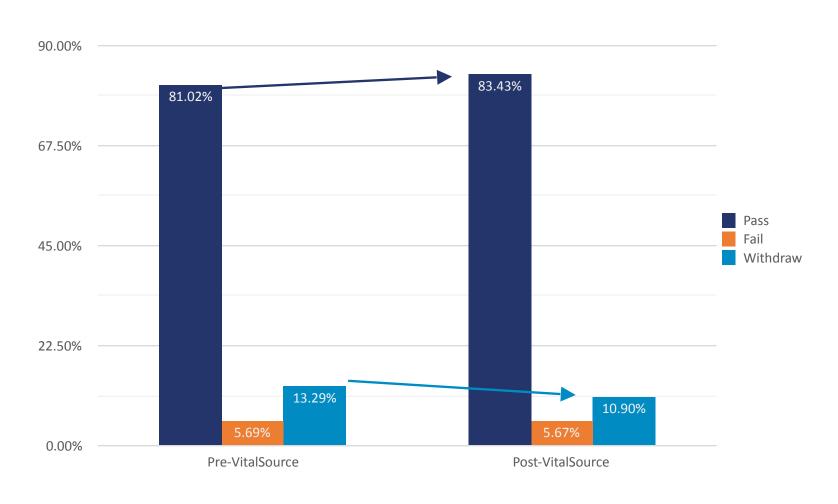
When students have access to materials on Day 1, they score on average 11 points higher than students waiting 14+ days.

84% of students achieved a grade of 80% or higher demonstrating improved success rates



Improving Pass and Persistence Rates

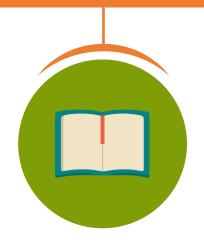
- Withdrawal rate decreased 2.39%
- Students who persist are passing!
- About 500 students per year, just in these two courses.





Key Findings

KEY RESEARCH FINDINGS AND USES



The earlier students start reading, the better

Identify who hasn't opened the book



Students need to read consistently throughout the semester

Monitor engagement throughout the course



Understand the spectrum of engagement in a course

Know and share the level of engagement required for success

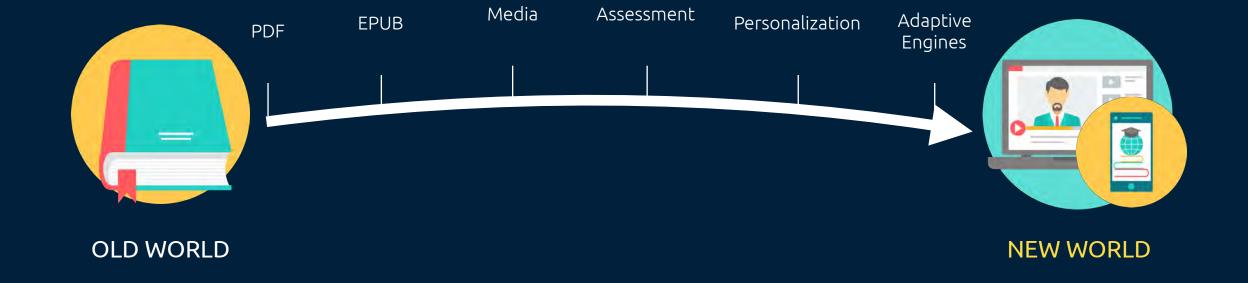


Personalize office hours consults with individual engagement

Personalize suggestions based on individual engagement



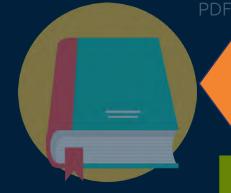






Richness of engagement

Richness of data



OLD WORLD

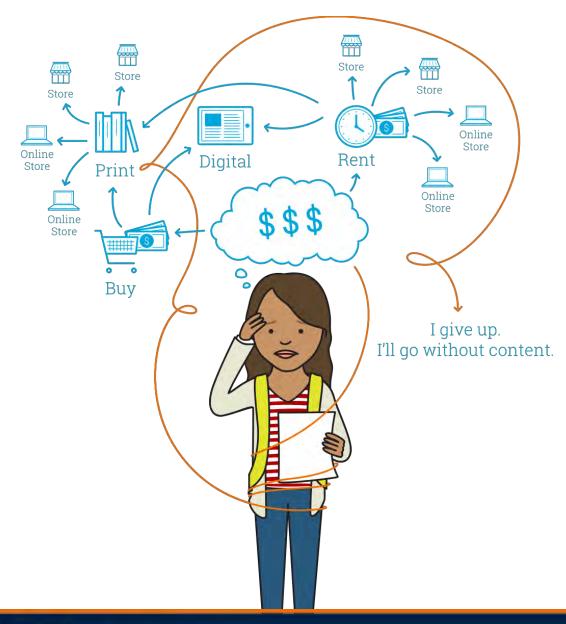
Accessibility is required!

Richness of integration

NEW WORLD

Innovation in business models



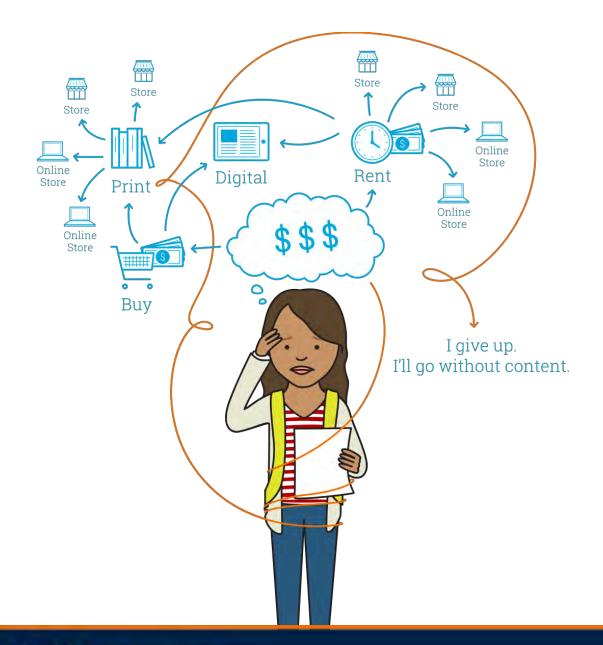


Well-designed and inclusive e-books can address the barriers that students with print disabilities have.

Unfortunately, this is not always the case and many students find that e-books are either inaccessible to them, or when they are accessible, difficult to find.

Dobson, V. & McNaught, A., (2017). Crowdsourcing e-book accessibility information and the impact on staff development. Insights. 30(2), pp.61–70. DOI: http://doi.org/10.1629/uksg.358





This is not a checklist!



End-to-end Accessibility

End-to-end accessibility can only happen when each participant does their part



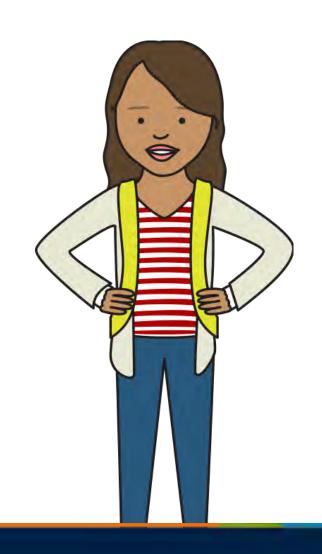
Publisher



Institution



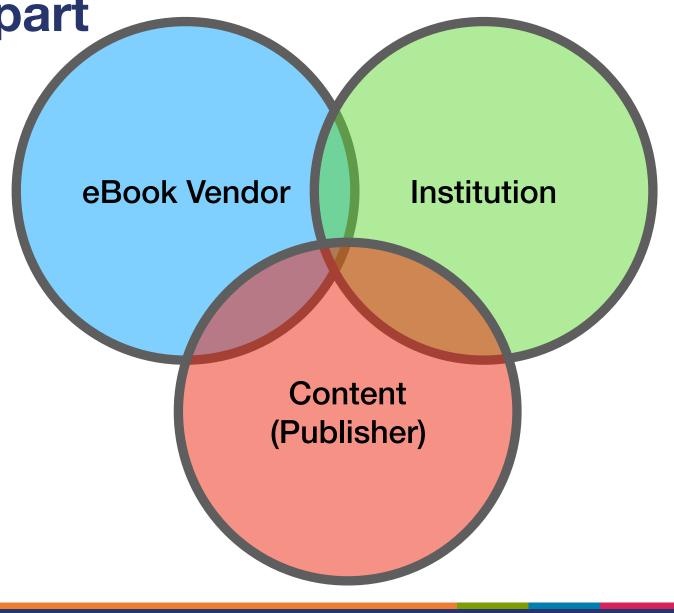
eBook Vendors





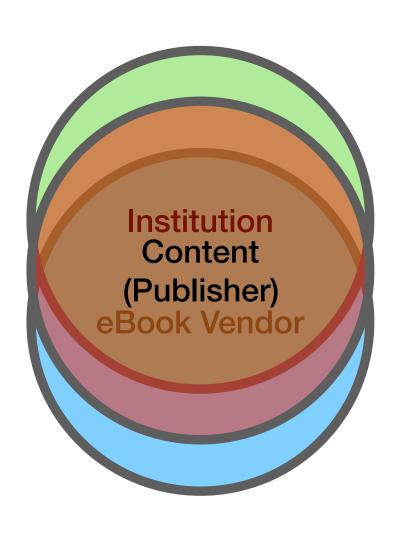
Everyone must do their part





Everyone must do their part







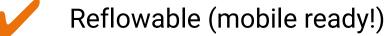


Selecting the right format is essential

We support both, but there are trade offs when it comes to usability and accessibility!









Font resizing

Interactivity













Image descriptions can be added to either format





While Authoring



Post Authoring

VitalSource Catalog is Ready!

Top Viewed Titles in 2017

	EPUB	PDF
Top 25	25	0
Top 50	46	4
Top 100	89	11

Top Viewed Titles in 2018 (thru Sept)

	EPUB	PDF
Top 25	25	0
Top 50	49	1
Top 100	94	6

Titles in active distribution

- 745,384 EPUB
- 672,709 PDF



Existing Guidelines

- 'The clean, flexible, consistent interfaces that support high levels of disabled access are very similar to those required for use on a mobile browser.'
- Existing guidelines mean little to those who matter Accessibility guidelines for web content are already in existence, however, these are beyond the technical understanding of most stakeholders
- 'We are W3C compliant' is **easy for a supplier to claim and hard for a purchaser to argue**. By developing easily demonstrated criteria, purchasers are empowered.
- 96.9% agreed or slightly agreed that e-book suppliers should provide better accessibility information.

Dobson, V. & McNaught, A., (2017). Crowdsourcing e-book accessibility information and the impact on staff development. Insights. 30(2), pp.61–70. DOI: http://doi.org/10.1629/uksg.358



TTS ≠ AT

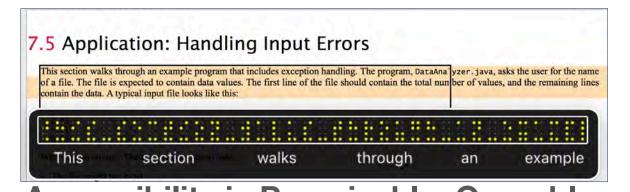
Text-to-speech is not equal to assistive technology

[Text-to-speech software] is important in the learning experience of many disabled students. Screen reading software [assistive technology] is essential for blind students to access digital information, text-to-speech similarly so for many dyslexic students.

Dobson, V. & McNaught, A., (2017). Crowdsourcing e-book accessibility information and the impact on staff development. Insights. 30(2), pp.61–70. DOI: http://doi.org/10.1629/uksg.358

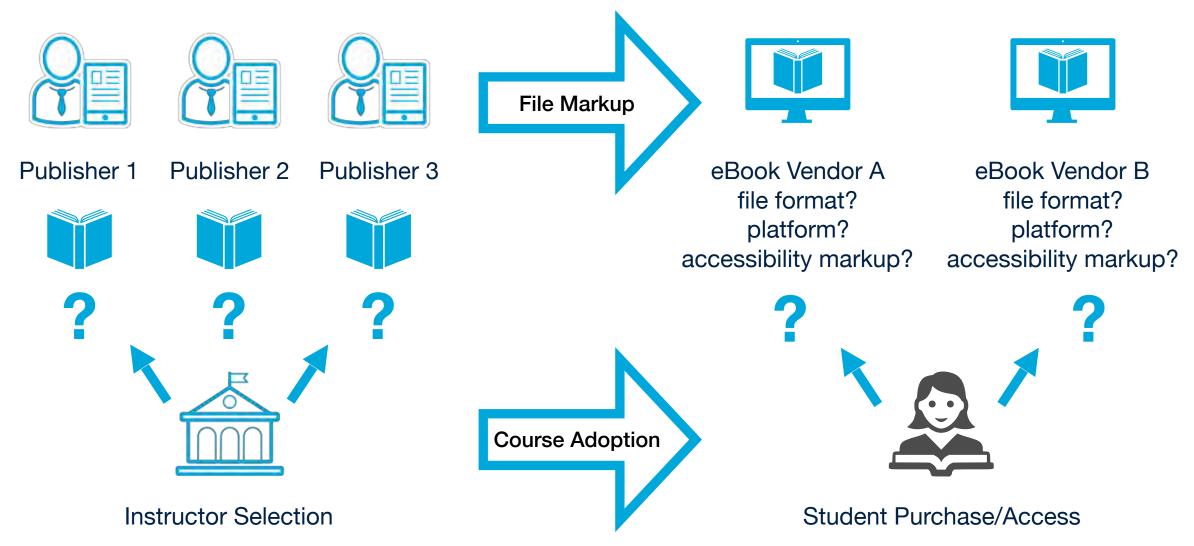


Text-to-speech is an alternate modality to reading

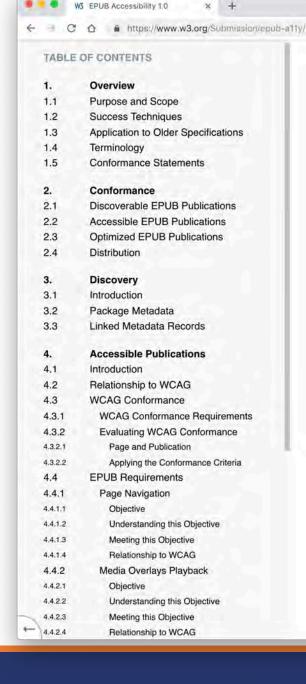


Accessibility is Perceivable, Operable, Understandable, and Robust (WCAG 2.0), which includes screen reader functionality.

A Look at the Problem...



Building on the foundation of **EPUB**



EPUB Accessibility 1.0

Member Submission W3C Member Submission 25 January 2017



This version:

https://www.w3.org/Submission/2017/SUBM-epub-a11y-20170125/

Latest published version:

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Abstract

EPUB Accessibility defines discovery and content accessibility requirements for EPUB Publications.

Status of This Document

This section describes the status of this document at the time of its publication. Other documents may supersede this document. A list of current W3C publications can be found in the W3C technical reports index at https://www.w3.org/TR/.

By publishing this document, W3C acknowledges that the Submitting Members have made a formal Submission request to W3C for discussion. Publication of this document by W3C indicates no endorsement of



The Accessibility Specification Means...

- 1. Discoverable
- 2. Accessible
- 3. Optimized

Regardless of the type or level of accessibility an EPUB Publication achieves, it **must** be distributed accessibly



Optimized

An Optimized EPUB Publication is discoverable to its intended audience through the inclusion of rich metadata, even if it is not identified as broadly accessible per this specification.

In addition to the metadata requirements defined in <u>Discovery</u>, an optimized EPUB Publication <u>must</u> identify the standard or guidelines the content adheres to in a [<u>DCTERMS</u>] conformsTo property. The value of this property <u>must</u> be an IRI [<u>RFC3987</u>] that references the standard or guidelines it follows.

Discoverable

must include the following [schema.org] accessibility metadata:

- <u>accessMode</u> (e.g., textual, visual, auditory, tactile).
- <u>accessibilityFeature</u> (e.g., alternative text, extended descriptions, captions).
- <u>accessibilityHazard</u> (e.g., flashing, motion simulation, sound).
- <u>accessibilitySummary</u> summary of the accessibility, including a description of any known deficiencies

Inclusion of the following [schema.org] accessibility metadata is recommended:

• <u>accessModeSufficient</u> — one or more access modes sufficient to consume the content without significant loss of information, such as the inclusion of transcripts for audio content

Inclusion of the following [schema.org] accessibility metadata is optional:

- accessibilityAPI indicates the use of scripting that follows [WAI-ARIA 1.1] authoring practices
- accessibilityControl identifies input methods that can be used to access the content (keyboard, mouse, ...)



Accessible

EPUB Publications must meet [WCAG 2.0] Level A, but it is recommended that they meet Level AA.

<u>Authors</u> should include page navigation in an EPUB Publication whenever any of the following cases is true:

- the **EPUB Publication** is identified as the equivalent of a statically-paginated publication
- the EPUB Publication is offered as an alternative where the use of both versions can be reasonably predicted
- the EPUB Publication is generated from a workflow that allows the retention of page break locations across formats.

Authors may include page navigation in reflowable EPUB Publications without statically paginated equivalents.

A conformant EPUB Publication must meet the following criteria when it includes page navigation:

• It must provide a means of locating the page break locations; It may include page break markers; It must identify the source of the page breaks.

In addition, if page numbers are read aloud in a synchronized text-audio playback of the content (e.g., EPUB 3 Media Overlays), Authors must identify the page numbers in the markup that controls the playback.



Accessible

To indicate that an <u>EPUB Publication</u> conforms to the <u>accessibility requirements</u> of this specification, it <u>must</u> include a conformsTo property [<u>DCTERMS</u>] and an <u>a11y:certifiedBy property</u> [<u>Accessibility Vocab</u>].

The value of the conformsTo property must be one of the following IRIs:

http://www.idpf.org/epub/ally/accessibility-20170105.html#wcag-a

The EPUB Publication meets all <u>accessibility requirements</u> and achieves [WCAG 2.0] <u>Level A conformance</u>.

http://www.idpf.org/epub/ally/accessibility-20170105.html#wcag-aa

The EPUB Publication meets all accessibility requirements and achieves [WCAG 2.0] Level AA conformance.

http://www.idpf.org/epub/ally/accessibility-20170105.html#wcag-aaa

The EPUB Publication meets all <u>accessibility requirements</u> and achieves [WCAG 2.0] <u>Level AAA conformance</u>.

The a11y:certifiedBy property specifies the name of the party that certified the content. The certifier of the content could be the same party that created the EPUB Publication, but can also be a third party accessibility certifier.



Accessible

```
The following example shows an EPUB 3 Publication that has been certified by a third party (the values of
the dc:publisher and ally:certifiedBy property differ).
<metadata>
  <dc:publisher>Acme Publishing Inc.</dc:publisher>
  <meta property="a11y:certifiedBy">Jim's Accessibility Testing</meta>
  <link rel="dcterms:conformsTo" href="http://www.idpf.org/epub/a11y/</pre>
accessibility-20170105.html#wcag-aa"/>
</metadata>
The following example shows an EPUB 3 Publication that has been self-certified by the author.
<metadata>
  <dc:creator>Jane Doe</dc:creator>
  <meta property="a11y:certifiedBy">Jane Doe</meta>
  <link rel="dcterms:conformsTo" href="http://www.idpf.org/epub/a11y/</pre>
accessibility-20170105.html#wcag-aa"/>
</metadata>
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Key Things to Understand...

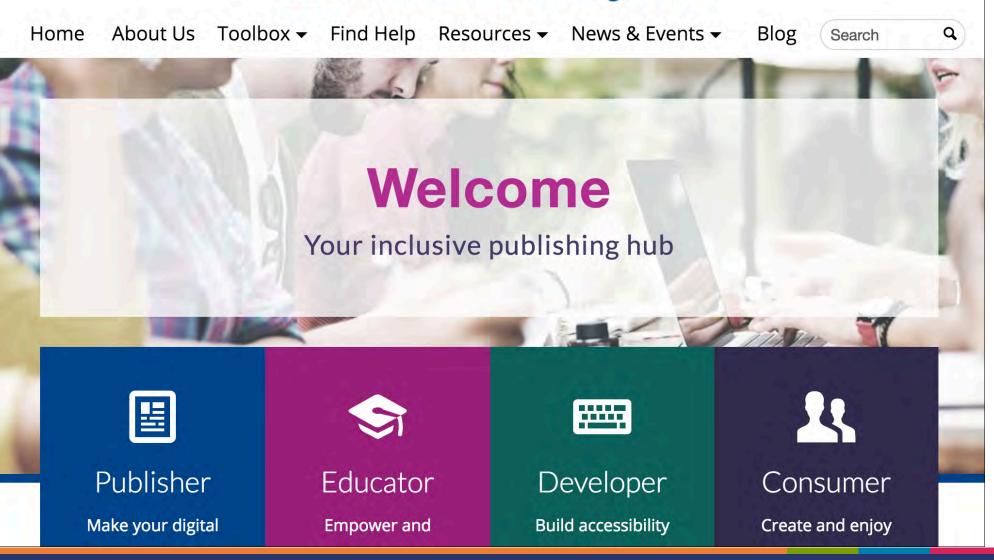
- We have a standard
- We have a way to measure content against that standard
- We have a means to certify the results
- The certification exposes the trusted source

.... so what can be done with this?

DAISY

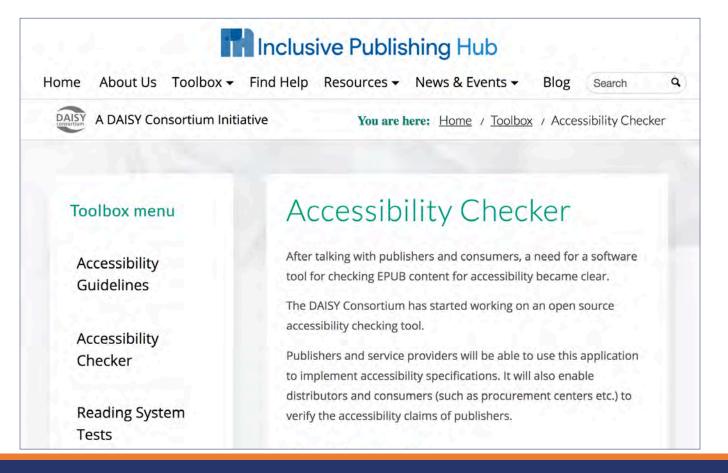




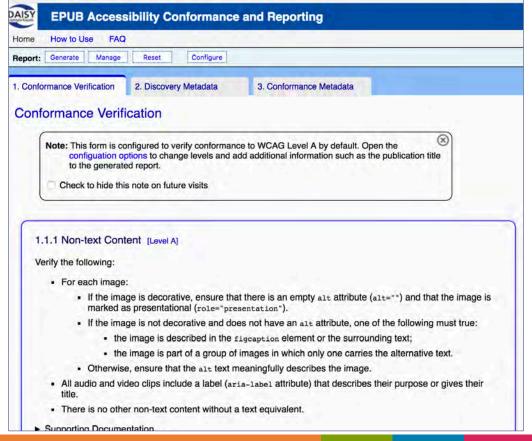


The Accessibility Checker

Automated Checker



Manual Checklist

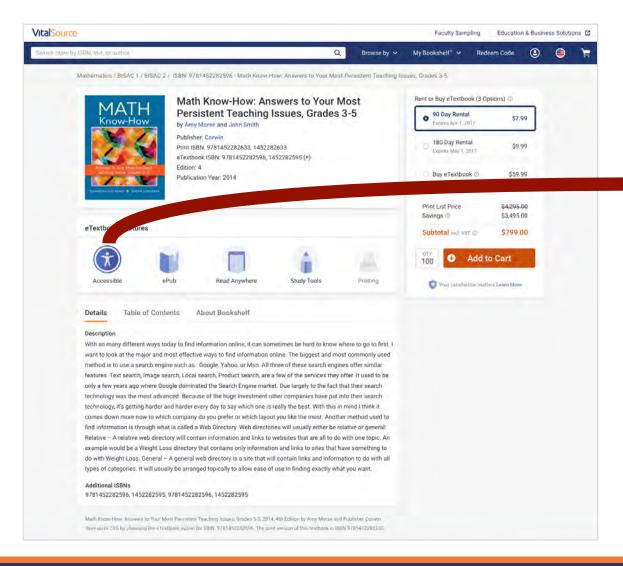


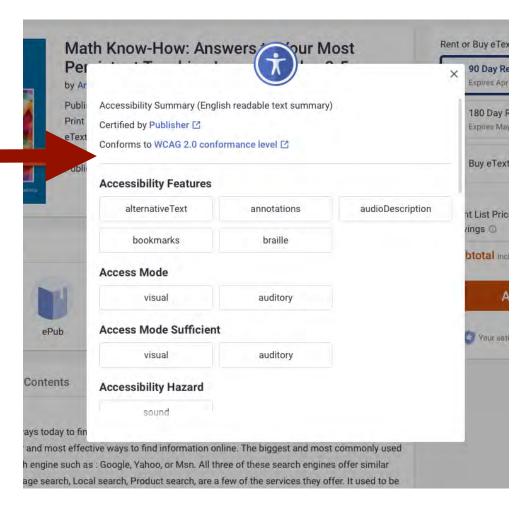


The Accessibility Checker

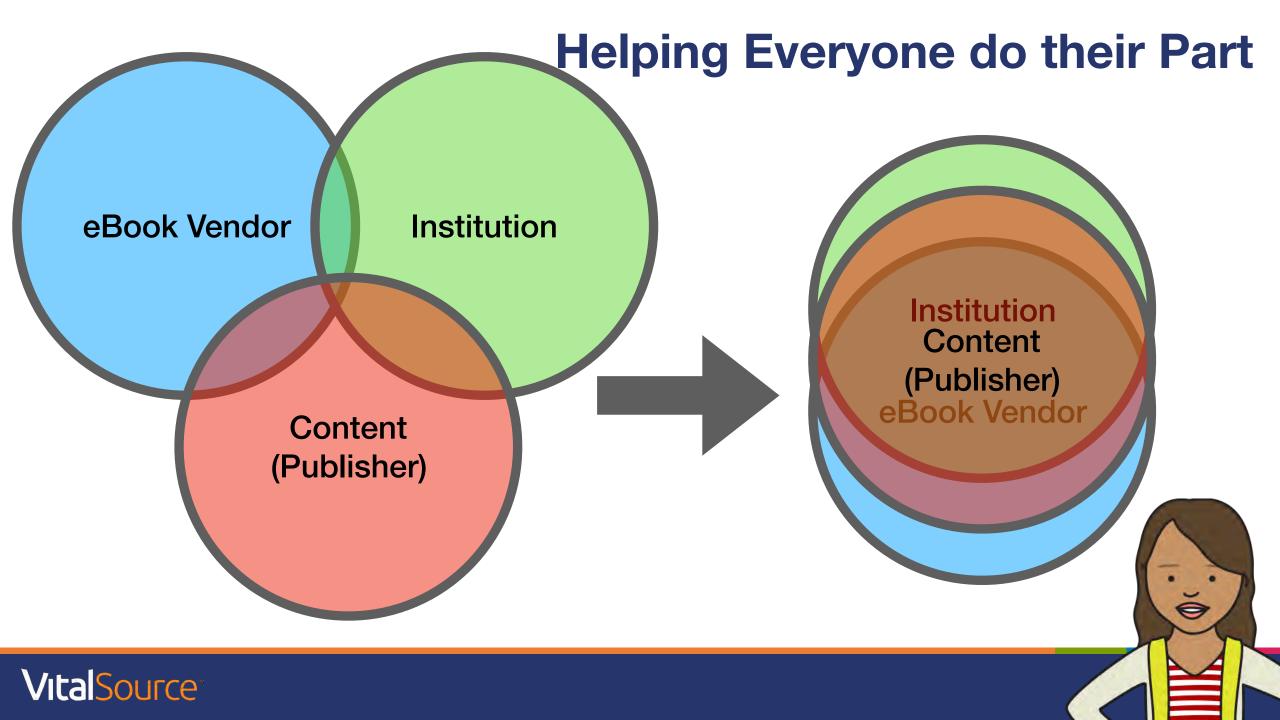


VitalSource: Transparency to Accessibility Features









Longevity is required

- Its a journey, not a destination
- There is no 'checkbox' of conformance
- Stay involved, stay current



VitalSource®