



# Use EPUBs, Please

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Why so many organizations  
are moving to EPUB  
and how it can help you  
and your students



# Rachel Comerford

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Senior Director of Content Standards and  
Accessibility

Macmillan Learning

[Rachel.Comerford@macmillan.com](mailto:Rachel.Comerford@macmillan.com)

@rallyfora11y

[www.macmillanlearning.com/accessibility](http://www.macmillanlearning.com/accessibility)



# Overview

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- What is an EPUB?
- Why do users like them?
- Why are we moving away from PDF?
- Making an EPUB is Easy
- How do the formats compare for users with disabilities?
- Who is this impacting?
- What other resources are available?

# What is EPUB

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- A standard/file type for authoring and distributing digital publications and documents
- A format more widely usable than PDF's (You don't have to take my word for it!)
- Export supported by all modern word processors. Google Docs, Apple Pages and LibreOffice all have EPUB support built right in.
- Amazon's preferred submission format
- You've probably read an EPUB... even if you didn't know it.

# Why do users like EPUBs?

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A large number of publishers, reading app vendors, developers, and technology companies are supporting and distributing EPUB 3.

The following companies are amongst those who are using EPUB 3: Penguin Random House, McGraw Hill, Hachette Livre, Pearson, Macmillan, Google, Apple Inc., Rakuten Kobo as well as many others.

- **Readability:** The reflowable nature of EPUB 3 adapts itself to different size displays including mobile phones and tablets.
- **Flexibility/Adaptability:** Every reflowable EPUB 3 document can be, with a single click to increase the font size, available in large-print.
- **Customization:** Change background and font colors easily with EPUB
- **Navigation:** excellent opportunities for high level navigation via the table of contents and direct page access.
- **Interactivity:** allows for the option of a richer reading experience with interactive features.
- **Situational Accommodation:** allows reading and hearing simultaneously.

# Why are we moving away from accessible PDFs?

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*“PDFs cannot be made mobile responsive. Asking your already impatient users-especially those with only 3G coverage and a small data plan to download an 8MB, two column PDF that requires them to constantly pinch, pull, scroll up, and scroll down just to read the one chunk of content they actually need that’s buried on page 164, is like telling them to suck eggs.”*

- Dan Craddock @slowburnweb



# EPUB Mobile Experience

## [The Limbic System](#)



## [The Cerebral Cortex](#)

### [Structure of the Cortex](#)

### [Functions of the Cortex](#)

### [THINKING CRITICALLY ABOUT: Using More Than 10 Percent of Our Brain](#)

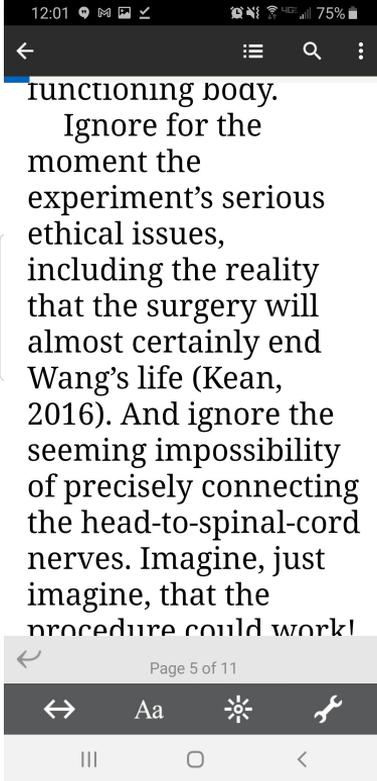
### [Responses to Damage](#)

### [The Divided Brain](#)

A Chinese transplant surgeon, Xiaoping Ren, is building an international team that hopes to undertake a really, really bold medical venture—a full-body transplant (Kean, 2016; Tatlow, 2016). Wang Huanming, who is paralyzed from the neck down, volunteered to become one of ten volunteers for this mind-boggling experiment. What would Wang have to do? Have his fully-functioning head transferred to a newly deceased, brain-dead person's still-functioning body.

Ignore for the moment the experiment's serious ethical issues, including the reality that the surgery will almost certainly end Wang's life (Kean, 2016). And ignore the seeming impossibility of precisely connecting the head-to-spinal-cord nerves. Imagine, just imagine, that the procedure could work! With the same brain and a new body, would Wang still be Wang? After

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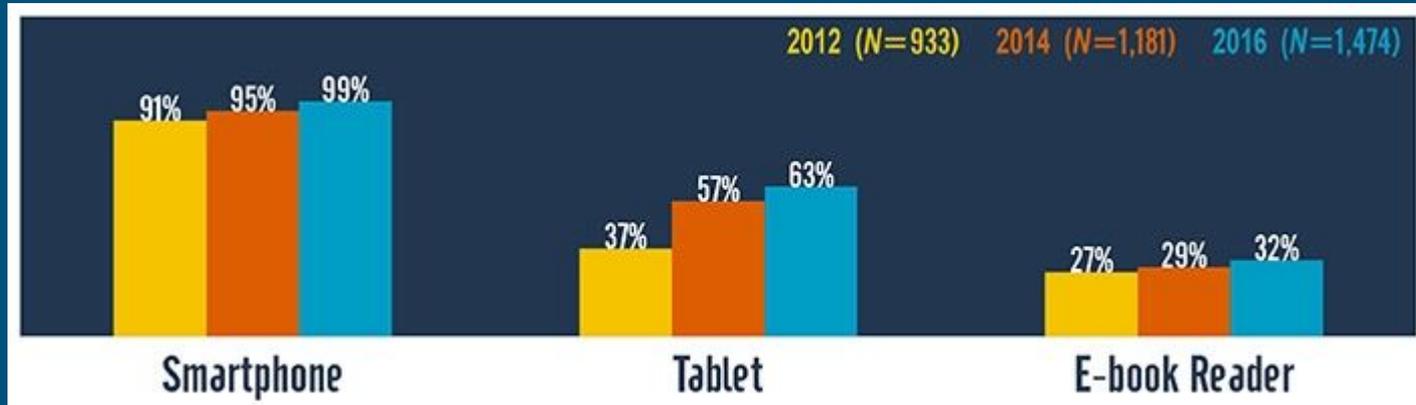
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# Device ownership over time



<https://er.educause.edu/articles/2018/4/changing-mobile-learning-practices-a-multiyear-study-2012-2016>

94 percent of students in a recent survey said they want to use their cell phones in class for academic purposes.

*The Student Pulse Survey from [Top Hat](#), conducted by independent research firm [Survata](#), polled 520 college students about digital devices, textbooks and learning.*

# Students want to use Mobile

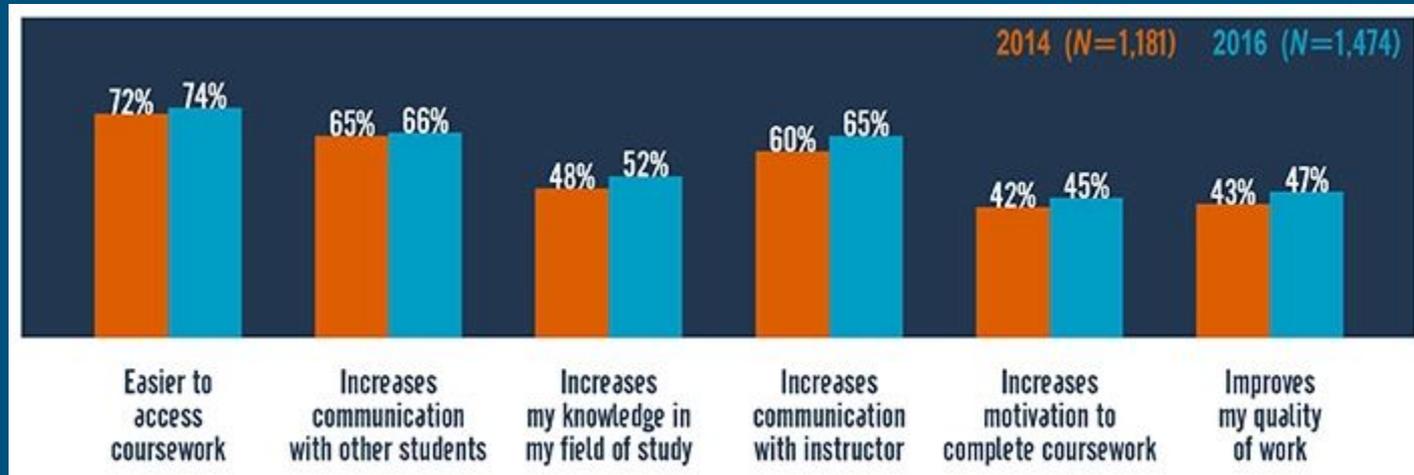


Figure 6. Student beliefs about the value of mobile technology use for academic purposes were measured on a 5-point Likert scale. These responses show the percentage of students who "strongly agreed" or "agreed" with each statement.

# Making an EPUB is getting easier

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- Free Word to EPUB tool from the daisy consortium can be used to create EPUBs from an accessible Word document with just a few clicks. To download the free [Word to EPUB tool visit the DAISY website](#). (PC only)
- The accessibility of an EPUB can be checked using the free [Ace by DAISY Accessibility Checker](#)
- Use [TweakEPUB](#) to update EPUBs quickly and simply

# How do formats compare for users with disabilities?\*

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*\*All data shamelessly borrowed from DAISY Consortium:  
<https://daisy.org/info-help/time-to-use-the-modern-digital-publishing-format/>*

# Table 1 Comparison of Features of PDF & EPUB 3 Required by a Blind Reader

PDF	EPUB 3
Reading order needs to be tagged	No post-production tagging needed
Running heads and footers are read out at the bottom of each page, often mid-sentence	This is not an issue with EPUB. The screen reader experience is not interrupted in this way
Text is plain text, with no associated semantic markup, unless tagged	Semantics of text is provided, which helps comprehension when using TTS or braille
New user-interface keystrokes need to be learned to maximize the accessibility potential	User interface-reading keystrokes are the same as for reading web documents
Selecting and copying text with a screen reader is unreliable	Select and copy text works well for students using screen readers
Screen reader support varies across platforms	Good screen reader support across major operating systems
PDF offers bookmarks and the ability to navigate by headings	Option to skip repetitive content and navigate by landmarks, headings or other structures

# Table 2 Comparison of Features of PDF & EPUB 3 Required by a Reader with Low Vision

PDF	EPUB 3
Fonts are chosen by the designer	Fonts can be personalized to the needs/preferences of the reader
Spacing between letters, words & lines and the size of the margins are fixed by the designer	Spacing & margins can be personalized to the needs/preferences of the reader
Very limited ability to customize colors	EPUBs and ebooks apps are built with reading in mind, so provide different display modes & some allow customization of many options
Some readers have a read aloud feature	Many reading apps have a read aloud feature, with visual highlighting
PDF will allow you to return to the page that was last seen, if you return to that particular PDF	Many reading systems/apps remember where you left off reading and return the reader to that location

# Table 3 Comparison of Features of PDF & EPUB 3 Required by a Reader with Motor Impairment

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PDF	EPUB 3
<p>Above a certain paper size and/or magnification levels, the page needs to be panned back and forth to read each line of text. Adobe Reader has a reflow function, but this frequently works poorly in PDFs that people receive or download</p>	<p>“Scrolling behavior” is an option to the reader’s preference</p>

# Table 4 Comparison of General Accessibility Features of PDF & EPUB 3

PDF	EPUB 3
Wide range of reading apps, including many free ones	Wide range of reading apps, including many free ones
“Go to page” is supported, but only for page breaks. Going to the tenth page in a PDF is supported, but this is not necessarily page 10 in the publication.	“Go to page” is fully supported and is tied to the number printed in the publication.
Bookmarks are sometimes included or can be inferred to mimic a table of contents	EPUB is built with ebooks in mind, so there is proper support for a table of contents in the standard and in reading apps
Technical ability to embed multi-media files, but is not much used, and has limited options for accessibility	Works well and supports many more options for accessibility with multi-media files
Links to PDF will normally launch in a default viewer	Links to an EPUB can be configured to open in an EPUB Reader (Windows requires installation of an EPUB Reader)
PDF does not have a document management system	Most EPUB reading apps include a library/bookshelf function for managing documents

# Two in Ten Students

- The National Center for Education Statistics' figures from a 2015 survey: 19% of post-secondary students reported having a disability.
- Many students with non-apparent disabilities (low vision, hearing loss, dyslexia, cognitive issues) do not notify their professors of their disability and do not seek accommodation.

# EPUB Resources

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- Free Word to EPUB tool from the daisy consortium can be used to create EPUBs from an accessible Word document with just a few clicks. To download the free [Word to EPUB tool visit the DAISY website](#).
- Read the [DAISY Consortium's white paper](#) on the benefits of EPUB 3
- The AEM Center [Getting Started with EPUB](#)
- [Thorium Reader](#) is an EPUB reading application for mac, windows, and linux
- The accessibility of an EPUB can be checked using the free [Ace by DAISY Accessibility Checker](#)
- [Dolphin Easy Reader](#) is an EPUB reading application for Windows, Mac, iPad, and Android
- Reading app evaluations available at [epubtest.org](#) will help you make the best choice for your college.
- Watch this YouTube video to see the [advantages of ePub reading on a mobile phone](#)
- [VitalSource](#) is a provider of EPUB Textbooks
- [RedShelf](#) is another EPUB Textbook provider
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- To read EPUB's on your mobile device visit the [Apple Book Store](#) or [Google Play Books](#)