

# Digital Resources for Second Level

## The importance of accessible e-books

### Hardcopy or digital?

There is ongoing debate about hardcopy and e-books and which option is better (Baron, 2021; Hillesund et al., 2022). Some studies have shown that using an e-book is more effective in terms of student knowledge (Bunkell & Dyas-Correia, 2009; Hadaya & Hanif, 2019), while other research has urged caution in the widespread adoption of e-books to replace the traditional hardcopy (Casselden & Pears, 2020). Multimedia components associated with e-books can also be attractive to many learners (Hsieh & Huang, 2020).

As an increasing number of post-primary schools are incorporating more e-books into their subjects, the level of accessibility must be a deciding factor in the choices being made. Ensuring that digital schoolbooks are accessible benefits all students, regardless of their abilities. Accessible features promote inclusivity, flexibility, and personalised learning, ultimately leading to improved educational outcomes and a more equitable educational experience (Marcus-Quinn, 2022; Marcus-Quinn & Hourigan, 2022).

When a teacher chooses an e-book, it is important to assess its compatibility with assistive technology; this means ensuring that the e-book works well with common assistive technologies like screen readers, Braille displays, and voice recognition software. This can be an issue where some school textbooks have an associated e-book but it is merely a PDF version of the hardcopy text and has no enhanced accessibility features or interactive options.

Decisions about typographic differentiation should be made on the basis of whether the text will be read in hardcopy or digital format. One problem with display can sometimes be observed where italicised text has been used. When text is bold italic (i.e., both styles together),



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**Making schoolbooks accessible is crucial in ensuring that all students, including those with disabilities or learning difficulties, have equal opportunities to learn and succeed academically. Many school textbooks in e-book form are not as accessible as they could be. This article outlines the importance of accessibility in digital materials to ensure that all students have a better experience of digital resources and the opportunity to achieve academic success.**

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many fonts do not display this properly. Bold italic is used in many ways, including for emphasis, quotations, older text, and foreign words. This problem can be particularly frustrating for students reading from a History e-book, where the style can be used more frequently than in other subjects because it is useful to draw attention to specific information.

If teachers are using an e-book that has no accessible features, they can contact the publisher. Sometimes there is an accessible version of the book that has not been made available as a general option. If there is no accessible option available, identifying the issues is very helpful feedback for publishers, and later editions can seek to address the problems. Improving the e-book's accessibility will have a positive impact on both students with disabilities and the entire class, fostering an inclusive learning environment.

### Key accessibility features

Key accessibility features that can be incorporated into e-books to promote inclusivity include text-to-speech functionality, which allows the e-book to be read aloud. This option can aid students with visual impairments or reading difficulties. It can also benefit auditory learners. Ensuring that e-books are compatible with screen readers, which convert on-screen text into synthesized speech, can enable blind and visually impaired users to access the content. Allowing users to adjust the font size, style, and spacing enhances readability for people with visual impairments or dyslexia. This feature also caters to diverse reading preferences.

Often, basic affordances that are overlooked can make a huge difference to the accessibility of e-books and other digital resources (Marcus-Quinn & Hourigan, 2017). One such affordance is to provide a high-contrast mode with distinct colour contrasts. This can make the content easier to read for people with low vision or colour vision deficiencies. Adding alt text to images provides descriptive text that screen readers can read aloud, enabling visually impaired users to understand the visual content.

Other features of accessibility include keyboard navigation, transcripts for audio and video content, navigation aids, and responsive design. It is also crucial to ensure that multimedia elements (videos, audio clips, interactive elements) have proper captions, transcripts, and descriptions, to help users with different sensory needs engage with the content.

Ongoing efforts are expected to focus on enhancing the usability of e-books. For instance, e-book publishers and providers will likely address the present shortcomings of e-book technology that hinder complete interaction with the content. This includes tackling concerns about the need for multiple logins to

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gain access, and addressing any challenges posed by cumbersome online readers or reading tools (Casselden & Pears, 2020).

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