



## THE AMAZON KINDLE: HOW TO MAKE READING EASY AND APPROACHABLE

### The Problem

For many people with disabilities, reading is the white elephant.

Whether the letters don't sit correctly on the page (dyslexia), it's too hard to focus without distraction (ADHD), you can't make out the text (vision impairment) or simply find it overwhelming (cognitive disorders), trying to read a book can feel like trying to write with a crayon in your mouth.

These aren't new facts – it's a known problem. However, for a long time the only support available was on-computer software that required a PHD to set up, and could be quite costly. Other alternatives were as time intensive as they were cost intensive, resulting in an unsurprising lack of adherence to programs and attempts. Angry? You should be. This is a skill for life, and attaining it can feel like trying to become a Kung Fu master over night.

This doesn't have to be the way it is. Since being released in the US market in 2007 the Kindle line of products have been embraced by small, but ever growing, numbers of individuals with disabilities. And now it has come to not be just an effective, but increasingly cost efficient, tool that can help a wide array of individuals with different disabilities learn the content without the conflict.

### What is the Kindle?

First, the long answer.

The Kindle is a portable e-book reader, made up of a software, hardware and network platform. It has been in development by the Amazon subsidiary

#### FAST FACTS

- Prices from \$114USD
- E-Ink Technology
- Incredibly Easy To Use
- Cross-Platform Sync
- Works well for various disabilities
- In-built assistive technologies





## TECHNOLOGY REVIEW

Lab126 since 2007 and uses wireless connectivity so that users can browse, read and download e-books and other text documents.

The Kindle has three key product lines varying in screen size and memory available, as well as access to various features.

The screen sizes range from 6 inches to 9.7 inches. Its display technology, the E-Ink display, presents 16 shades of grey to minimise power use and simulates reading on paper that results on less eyestrain than backlit devices.

The device has a built in text-to-speech reader for all enabled content, adjustable displays and voice guides for menus. It also has full powered back speakers and a headphone port for audio, can store and play music, browse the internet in a limited fashion and store notes and highlights for books. The battery life can be up to one whole month, and the device can store up to 3,500 books.

Now, the short answer.

It's an empowering piece of technology that allows individuals with disabilities to access, and consume, the content they need to progress and learn. And now it is incredibly affordable.

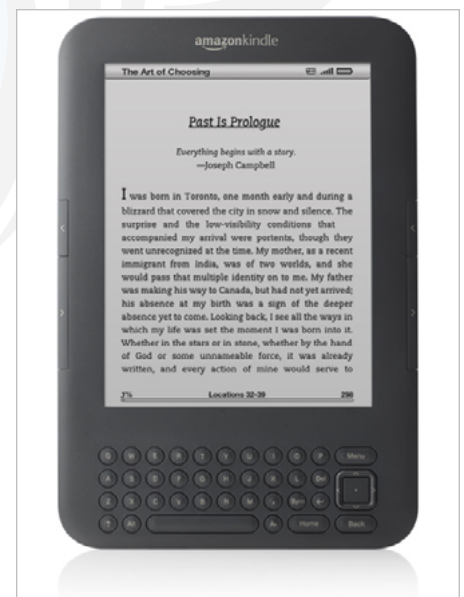
## The Benefits and Features Of The Kindle For Individuals With Disabilities

The Kindle could have been made for individuals with disabilities.

The array of benefits it provides, from accessibility to pricing structure, make it an ideal tool for any disability-afflicted individual. Below are the key benefits I have found since using my Kindle.

### **IT DOESN'T COST THE BANK**

The key benefit of the Kindle is how accessible it makes everything – including itself.





## TECHNOLOGY REVIEW

When it was first released, the cost of a Kindle was nearly \$400 for a 6 inch screen. You can now get a more advanced model, with more features, for as little as \$114 USD – a cost subsidised by making the non-intrusive screen savers (only visible when the device is not in use) advertisements instead of images. The subsidised editions is only available in the US at the time of writing, however the next model costs only \$139USD – just \$25USD more.

For the top-of-the-line, maximum display of 9.7 inches, the cost is \$379 USD – noticeably more expensive, but this also comes with free global 3G internet access for the device.

The added cost benefit of the Kindle is what you don't end up paying for printed texts that can only be consumed in paper form. With Kindle books costing at times less than half of a printed book and able to be distributed across any Amazon Account Associated Device, the savings add up quickly.

### **CONSUME CONTENT BY LISTENING WITH THE SCREEN READER**

For those with vision impairments, the Kindle will read to you. If enabled by a publisher the Kindle's text-to-speech software can read aloud the words on screen and turn the pages automatically. The speech can be set to one of three speeds and be set from male to female.

In my experience I've found the quality of the text to voice software to be above average, but would not recommend it to be used in the same way that an audiobook could be – at times the voice is noticeably robotic and can overlook the human intonation of various sentences.

### **BETTER NAVIGATION WITH THE MENU READER**

The third of the features that are most beneficial to individuals with vision impairments, the Menu Reader assists a Kindle user by reading out the various menu options presented when they arrive at any option prompts, as well as noting various details about a text. It is key in navigation for those with a vision impairment.

### **AUDIOBOOK COMPATABILITY**

The Kindle has the ability to play audiobooks purchased on an Audible account (now also a subsidiary account), or MP3 files which have been loaded onto the device via the USB cord. As the Kindle memory acts as a flash memory, similar to a USB, it's very simple to plug it into a computer, open up the Music folder and drop in Audiobooks.



## TECHNOLOGY REVIEW

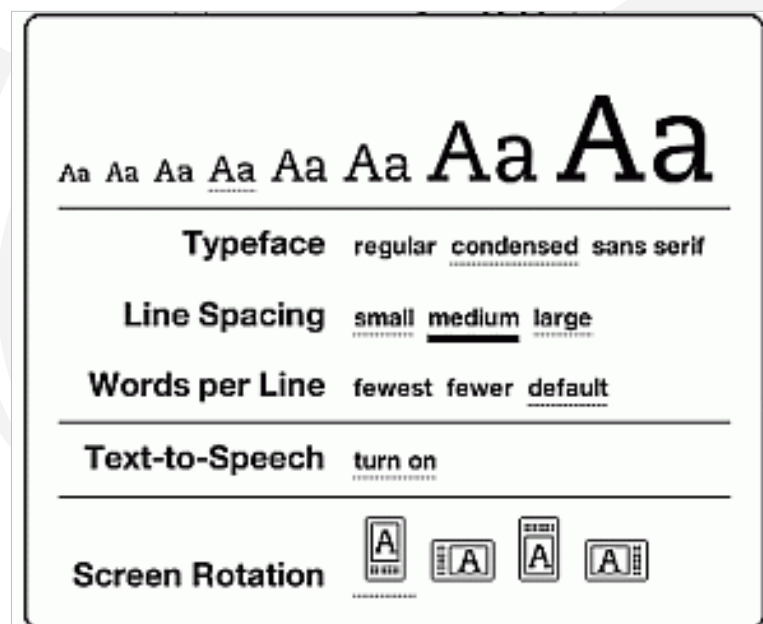
I feel that although this feature is still being worked on, it does have some way to go. Audiobooks from Audible are easily navigated via the device, however the standalone MP3 files are much more of a challenge. I would recommend only using this for Audible Audiobooks currently.

### **IMPROVE READABILITY WITH ADJUSTABLE TEXT SIZE**

This is one area where the Kindle steps ahead in a big way. In its text options, the Kindle allows the following:

- A choice of 8 different text sizes
- The choice of a regular, condensed or sans-serif typeface
- Small, medium or large line spacing
- 3 words-per-line spacing options

Tweaking each of these settings can turn a single block of muddled text into a clear and organised series of words, and when used in conjunction with the Screen Reader, can assist with understanding text in a big way. This is also a highly useful feature for individuals with a delayed literacy level, allowing them to identify challenge words and understand them.





## TECHNOLOGY REVIEW

### **READ ANY DOCUMENT YOU WANT ON THE KINDLE**

Have a PDF, but want to take it with you instead of lugging around a laptop? How about sharing readings or work for students?

With the Kindle, any PDF document you have can be uploaded to your Kindle via an Amazon conversion service. The service can be used by simply emailing the documents to your Kindle's Device Email, which will then either directly deliver or convert and deliver your files to your device. If you have multiple devices registered to the one account, you can use this to deliver content to them all at the same time.

### **IN-BUILT DICTIONARY FOR LANGUAGE UNDERSTANDING**

Available in both UK and US English, the in-built dictionary is a simple but notable benefit of the Kindle.

Any word contained in any text can be navigated to using the built in directional controls, and its definition will show. Further definitions, word derivatives and origin can then be explored by following the prompt that appears.

### **PLUG AND PLAY**

The Kindle is not equipped with a touch screen, does not need to be charged every night and has an incredibly low learning curve.

Once you turn on your Kindle for the first time, giving it a charge, you simply log into your Amazon Account and start downloading, or buying, any content you wish to have. It's simple, painless, and easy to use.

Navigation is done using the 'Next Page' and 'Previous Page' buttons, and three primary keys – Menu, Home and Back – exist around a directional pad which gives a different output depending on the context of its use.

### **DISTRACTION REMOVAL WITH THE AUDIO PLAYER**

As someone who is easily distracted, I find myself able to get more done when I can cut out unexpected distractions, such as noise, and maintain a predictable and organised environment. One thing that has been key for me in this respect is the use of music as an environmental suppressor.

As mentioned in the Audiobook section, the Kindle has an inbuilt audio player. Although it is not highly user-friendly or overly functional, it has a simple start/stop setup that has come to be invaluable for listening to music and reading in public places.



## TECHNOLOGY REVIEW

### **DO ONE THING WELL – THE KINDLE AS A STANDALONE DEVICE**

The Kindle was made to be read, and little else.

The final big benefit of the Kindle is that it is made to consume information by way of books, and little else. There are no downloadable apps, internet browsing is limited at best (and requires an internet connection), the screen is monochromatic and there are no extra functions. Angry Birds and Facebook don't belong on a Kindle.

This too has been an invaluable feature of the Kindle – any distractions have to be actively sought out, and as a result they aren't as easy to fall into.

### **Who, Exactly, Is The Kindle For?**

Over the past few pages, we've identified the three key groups that the Kindle can assist - The Vision Impaired, the Attention Deficits and the Cognitively Impaired. The Kindle is an invaluable tool for improving and enabling literacy in individuals with disabilities.

Instead of building a better horse, the Kindle has been able to address the challenges faced by individuals with these disabilities. Braille has been replaced with audio, options have been restricted to key objective functions and the device can be leveraged for a range of learning disabilities. Books can be highlighted, notes can be made and you can carry an entire library in your backpack.

As an Assistive Technology, the Kindle represents the future of reading. The multi-faceted methods of consumption and content interaction it provides give a new level of accessibility to written text, allowing those who previously struggled with reading and engaging with texts a more friction-free experience, which is likely to result in greater engagement and results.



## TECHNOLOGY REVIEW

### Rob's Opinion

Getting the Kindle was like getting a kick of Adrenaline to my reading habits.

Prior to getting the Kindle I was reading, at best, a book every month and a half – now, it's around three a month. Aside from the really powerful technology of the Kindle, which makes reading generally more transportable as well as easier, there are a few key elements of the Kindle that I feel have been responsible for amping up my reading since getting it:

- The Kindle takes the (often irrational) paralysis caused by a big book or text out of the picture. No matter what you read, it will always be the same size in your hands.
- You get a consistent Dopamine hit every time you finish a page as you move on to the next. It gives you a constant feeling of success and achievement as you click the 'Next Page' button, and makes the process feel even easier.
- I've listened to Audiobooks as I've cooked, allowing for a style of multi-tasking previously constricted to reading the recipe and following the instructions. Now I'm listening to Gary Vaynerchuck discuss Social Media as I make Chicken Stir Fry.
- I can book hop. As a subscriber to the rule of reading one non-fiction book at a time, it's been nice to unwind by bouncing from non-fiction to fiction at a few clicks of a button.
- It's fun and easy to use. The simplicity of the Kindle makes it incredibly easy for anybody of any age or technical ability to pick it up and try it out. I've used mine with all the members of my family – and not a single fight!

The Kindle is a powerful piece of technology that goes from strength to strength, and clearly caters those with needs for Assistive Technology. It's cheap, it's powerful and it has the potential to stop reading being a challenge for individuals with disabilities by removing the obstacles.

*Get Your Kindle Now*



## BONUS: For Those That Read

When I was younger, I used to play a serious amount of video games. One of my favourite things was that at the end of every manual there were bonus tips, cheats and tricks for the game – but you only found them if you read the manual. These are the bonus tips, cheats and tricks for the ADD.Techies.

### ***Gerry Kennedy's Universal Access using eBooks, Readers and Devices on Spectronics - Inclusive Learning Technologies***

Gerry Kennedy wrote a comprehensive breakdown of E-Books, E-Readers and similar devices – incredibly detailed.

<http://www.spectronicsinoz.com/article/universal-access-using-ebooks-readers-and-devices/print>

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<http://www.amazon.com/gp/bestsellers/digital-text/>

### ***Play Minesweeper on your Kindle***

Strictly for those that read the entire piece! On a Kindle, you can hold down Shift + Alt + M and be treated to the classic game, Minesweeper. The only minefield you need to encounter when it comes to approaching reading.