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## Pros and Cons of Ebooks

*By Chris Wasshuber*

If you came this far you probably have already an interest in ebooks. But you might not be absolutely convinced of their benefits or you might have doubts and worries about some of their shortcomings; many of which I would characterize as 'alleged shortcomings'. Allow me to give you the pros and cons as I see them.

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**The Cons.** To be frank, in my opinion there are not many cons for ebooks. There are some temporary ones which will go away in the future. One con is that currently not all content is available in electronic form. However pretty much all publishers are working on offering their contents in some digital form. Other things people complain about are almost too stupid to mention here. Like paper books can be used to keep you warm in winter (by burning them) and they can double as a monitor stand or you can hit someone over the head without destroying the book or you can use them on the toilet, sheet by sheet. Well, you get the idea. I have to admit ebooks cannot be used for these kind of purposes. Others will say that the smell and touch of a regular book is what they love so much. And the resolution is so much better. And no batteries are needed. Some of these arguments have merit. But most of them will go away in the near future or will almost go away. Battery life will improve and with e-ink based devices it already has. One can read dozens of books on a single battery charge. Screen resolution will improve significantly. Even flexible screens are already developed in various research laboratories. In a few years the first products could be introduced. Ebook readers which are today rigid small screen computers will be tomorrow large screen high resolution flexible reading devices. They most likely will never replicate the exact look and feel of a book, but will come pretty close. Recently Sony, Amazon and IRexTechnologies are offering handheld ebook reading devices based on the e-ink screen, which allows about 10,000 page turns on a single battery charge. Assuming that the average book has 300 pages, one can read about 30 books before the battery has to be recharged. This could be months or years down the road. The resolution of the E-ink screen is also higher at 150dpi. And that is just the beginning.

**Alleged Con - Data Persistence.** Some argue that data on a CDROM will not be readable in a few years and that this will mean the loss of all your ebooks or the contents of them. The short answer is - big nonsense and absolutely false. The

long answer requires two parts. The first is the pure data persistence on the CDROM and the second is format compatibility with future reading devices. Data persistence or retention of high quality CDROMs, like the ones we at Lybrary.com are using, is 50-75 years. This is the virgin CDROM manufacturer's guaranteed life time of data retention. It has to be understood like the expiration date on your milk bottle. The milk will in almost all cases last considerably longer. And the same is true with CDROMs. This is a safe manufacturer chosen life time. It is not that after 75 years suddenly all bits on the CDROM are gone. Once a CDROM reaches 80 or 100 years some bits might flip or tend to be read incorrectly. But this does not mean that all the contents might be gone. A pixel of an image might turn from black to white. A word might lose a character. This is no big deal. It could be compared to a regular book suffering a nick or tear or stain. The contents at large will still be very usable. And there is always the possibility to copy every 50 years the CDROM to a new one starting a new media life cycle. Of course, there are also cheap products for which the lifetime can be much shorter. Lybrary.com recommends to make backups of your discs to your hard disc and other storage media. It is more likely that you suffer data loss due to inappropriate storage of your CDROM, rather than due to the inherent data life time.

The other part of the answer deals with the question of reading devices and file formats. Even if the data is still on the disk will we be able to read it? Yes. With DVDs which have the same form factor and storage format as CDs the future is secured. DVDROMs will soon be able to store 30-50 GBytes. And since DVDROM readers and players are compatible with CDROMs and can read CDROMs, as long as DVDROMs are around you will be able to read your CDROMs. What will come after DVDROMs? Who knows. Maybe smaller discs? Maybe. The form factor of CDROMs and DVDROMs is quite convenient. Even if smaller discs are introduced later on, CDROM/DVDROM form factor will most likely stay alive for storage of very large amounts of data. And what about file formats such as PDF and HTML? Many hand-held reading software is based on HTML and PDF and can directly read or import HTML and PDF. HTML is an open simple text format. It can be easily converted into many other formats. The open software movement and the huge HTML content available on the internet will make HTML a standard for a very long time. There will be improvements and extensions such as XML but it will not render HTML obsolete. Just as ASCII is still our text standard for more than 50 years - as long as we have computers. PDF is likewise a broadly supported format which can be read, created and converted to and from with a number of tools. No need to worry. You can pass on your ebooks to your grandchildren and they will be able to pass it on to theirs. And for the ones who cannot live without paper, you can still print out your ebooks, storing them on paper.

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