The electonic book today and tomorow

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1 Abstract

An electronic book (eBook) is a publication in electronic form that can be read on digital devices. Nowadays eBooks are preferred by some users over printed books, while the majority still remains conservative in this aspect. Here are some reasons why one might find electronic book to be convenient: the ability to store huge digital library on a small light weighted electronic device, the ability to instantly purchase and start reading a book disregarding one's physical location, eBook is usually more accessible than the paper-based version.

Electronic Books today are something more than just a text with a bookmarking option. Readers have some additional built-in functions, such as dictionary and voice reading. Modern most common standards for eBooks are MOBI, PDF, EPUB 2 and EPUB 3. First three listed formats have their problems and limitations, for instance you cannot have math and vector graphics in MOBI and EPUB2, PDF is inconvenient to read on small screened devices and this was the reason for our group to choose EPUB3 for further work. EPUB3 opens a lot of opportunities for someone who wants to create a complex eBook, because it's supports HTML5, CSS3, multiple style sheets, metadata, XHTML5, scripting and MathML. All this powerful tools allows creating an eBook in the way it was never viewed before. Our group tried to create a prototype of an experimental eBook, based on EPUB3. It is Physics Contests Preparation eBook "shell", which supports user editing till some certain extend. Our eBook includes built-in interface element which allows the reader to refer content from some other sources and make it visible, to create his own hyperlinks and to add his own content within this eBook interface.

The idea was inspired by one of the group members struggles while he was preparing for his physics contests and the idea of the open source. There are not many books dedicated to preparations for high level physics contests and the only right way to prepare for such contests as IPhO, APhO and WoPhO is by reading multiple articles and doing a lot of problem-solving. The problem with all of this is that you can have worked a lot of material and obvious desire is to structure somehow this material, but copybooks have tendency to end. One might end up with a copybook which contains well-structured information, which will have more stapled additional pages than original copybook had. This eBook "shell" solves all of these problems, and the problem of working with multiple books in parallel which is not very convenient with modern eBooks.

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