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# E-BOOKS – AN OVERVIEW OF ITS MEANING, ADVANTAGES AND DISADVANTAGES

# Ms. Chelsea D<sup>1</sup> and Dr. Vijayakumari Joseph<sup>2</sup>

<sup>1</sup>Research Scholar and <sup>2</sup>Assistant Professor, Department of Commerce, Madras Christian College, Chennai

<sup>1</sup>chelseadharmarajan@gmail.com and <sup>2</sup>vijijoe1967@gmail.com

### **ABSTRACT**

The ubiquity of digitisation further fuelled by the pandemic has led to a surge in the usage of e-books in recent times. Hence the need to overview the present state of e-books was increasingly felt. The present study was conducted with the objective of identifying the meaning of e-books as well as the advantages and disadvantages of using e-books, through review of literature. Summarising the definitions given by numerous researchers it can be inferred that for something to be called an e-book, there are three requirements. They are the software that can present the book file, the hardware or the device that has a digital screen to display the book file and thirdly the need to possess attributes that makes the experience of reading digital text similar to that of reading the print. The major advantages of e-books are found to be convenience in using them, immediacy, embedded features, space saving, searching ability, cost effectiveness, text manipulation and environmental friendliness. Whereas the major disadvantages of using e-books are identified to be lack of wide range of titles, expensive devices, dependability on devices and infrastructure, loss of haptic aspect, lack of uniformity in features of e-books among others. The sooner we all adapt to this developing technology the better, as this change is inevitable and is here to stay (Waller, 2013). The major limitation of the study is that the papers reviewed belong to studies conducted in different parts of the world and hence cannot be generalised to any particular region.

Key words: e-books, meaning, definition, advantages, disadvantages

## INTRODUCTION

Replacement of conventional products with its digital alternatives is on the rise, thanks to the profuse digitisation happening in our day to day lives. This has led to increase in screen reading behaviour among the masses so much so that it has become a latent feature of an individual's personality (Khatri, 2020). Consequently e-books have started gaining more importance and are becoming increasing popular by the day (Fojtik, 2015). The concept of e-books has been discussed a lot over its inception in the year 1971. Now, with a surge in use of e-books due to the prolific presence of digitisation fuelled further by the pandemic, it becomes necessary to overview the state of e-books. Hence this research was conducted with the objective of identifying the meaning of e-books as well as the advantages and disadvantages of using e-books, through review of literature.

# WHAT IS AN E-BOOK?

The meaning and definition of the term 'e-book' has evolved a lot since its inception. Though text in the digital form was exchanged among scholars during the early years of internet through formats such as UNIX, FTP and HTTP (Snowhill, 2001), Project Gutenberg in 1971 is considered as the birthplace of e-books by many researchers (Stroube, 2003)(Gibson & Gibb, 2011) (Nicholas & Lewis, 2008). Project Gutenberg is an initiative by Michael Hart to make books available online. This was a revolution in the field of e-books. Since then numerous researchers have come up with definitions and explanations of the term, the chronological enumeration of which is given.

<sup>1</sup> Correspo	nding	Author
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The mind behind project Gutenberg, 1971, Hart specifies the characteristics of e-books as it is one that can be searched, quoted, cited, referred and be simple in its approach towards reading, searching and quoting through a common combination of hardware and software.

(Anderson-Inman & Horney, 1997) developed four criteria which will help in identifying if the software under study is an e-book. The first among them is that the e-book should visually present electronic text to the reader. Second criterion is that the e-book should provide features of print books such as bookmarks. Next, there should be a central focus for the e-book, in other words it should be in an organized manner. This fact rules out the World Wide Web from the definition of an e-book in spite of it fulfilling the first two criteria. The last criterion is that the presence of any media other than text such as audio, graphics, animations etc should be to enhance the text in the book. Further the purposes of e-books are categorized as reference, instructional, studying and entertainment.

(Rao, 2001) provided a definition of e-book with two components. The first one is that there should be text available in digital form and it can either be a book scanned and made digitally available or digitally developed reading material with words and images or even a digital file containing a book. The next component is in regard to the display of the first. That is, this digital text has to be read through a digital screen using any of the devices such as desktop, notebooks, dedicated e-reader etc with or without the aid of network connection.

(Appleton, 2004) explains that the term e-book should be used to represent digitally available content which can be downloaded and printed if need arises.

(Vasileiou & Rowley, 2008) developed a two-part definition of e-book. The first one defines an e-book as any digital object with textual and/or other content as an integration of attributes of books and digital environment. The second part goes on to list the specific features that are expected in an e-book like annotation features and similar other interactive tools.

(Abdullah & Gibb, 2008) defined an e-book as a reference to all the contents of the document as well as the hardware and software of the e-book.(Armstrong, 2008) defined e-book as anything that can be regarded as "book-like" and accessed digitally irrespective of its characteristics. But he excluded e-journals from the definition of e-books due to the fact that they are used mostly for reference rather than reading.

(Lam, Lam, & McNaught, 2009) goes on to state that e-books are those in the digital form that can be read from a digital device.(Onder, 2010) lists the requirements of an e-book as a reading hardware and text featuring software which is expected to enable the reader to use it like he/she uses a printed book.(Gibson & Gibb, 2011) simply describes an e-book as a digital object that is recognisably book-like.

(Embong, Noor, Hashim, Ali, & Shaari, 2012) states that e-books have three major components namely hardware, software and the file containing the e-book. Akpan et al., defines an e-book as any book in the electronic format which can be accessed through devices such as laptop, computer, tablet, smart phone or any other reading device. Further he goes on to explain that e-books are digital versions of printed books and are distributed through the internet (Akpan, Agan, & Bassey, 2018). (Adeyinka, Dare, Adebisi, & Lawal, 2018) identifies e-book not just as a book in the digital format but as an edition of a printed book.

(Dimitriadis, et al., 2019) explains that an e-book needs to possess two specific characteristics on editability and flowability. That is, though it is an electronic document with the feature supporting text manipulation, the text should not be editable. Further the flowability factor states that an e-book should adapt to any device it is being accessed irrespective of the screen size without compromising the general format of the text such as line breaks, proportion of text to images etc.

Summarising the above definitions given by numerous researchers it can be inferred that for something to be called an e-book, there are three requirements. They are the software that can present the book file, the hardware or the device that has a digital screen to display the book file and thirdly the need to possess attributes that makes the experience of reading digital text similar to that of reading the print books such as organisation of the text, page breaks, annotation features and similar other tools. Though these three are enough to categorise a file as an e-book there can be additional features as well.

## **ADVANTAGES OF USING E-BOOKS:**

The following are regarded as the important advantages of using e-book by various researchers.

## **Immediacy:**

When in need for certain information, one can acquire it immediately by accessing an e-book on the subject. There is no waiting for delivery involved, in other words not much effort is needed to access it in terms of moving, courier delay, shipping expenses etc (Akpan, Agan, & Bassey, 2018)(Rosso, 2009). Overall, the easier purchase process and distribution proves a valuable advantage for the readers as well as sellers (Fojtik, 2015). Further, with regard to students, the ability to access material instantly for the coursework as well as exams is an important advantage (Chen, Fan, & He, 2012)(Rowlands, Nicholas, Jamali, & Huntington, 2007).

## **Embedded features:**

E-book in today's world bestows the reader with numerous embedded features. It provides access to related information by displaying links foruseful websites. Further advanced e-books comes with interactive features such as videos, audios and animation which aids in better understanding (Akpan, Agan, & Bassey,

2018)(Rosso, 2009)(Lai & Li, 2013) and even allows access to dictionary (Chen, Fan, & He, 2012). Interactive tools present in the new age e-books such as linking capabilities with supporting websites provides for collaboration and engagement (Waller, 2013). These interactive tools embedded in an e-book are found to develop a positive attitude towards using e-books and thereby attracting students to learn using them (Piramanayagam & Seal, 2020).

Further in an academic set up, these additional features help the instructors to conveniently monitor the wards' reading behaviour. (Embong, Noor, Hashim, Ali, & Shaari, 2012). Certain e-books even allow the reader to choose between the languages that the text is available (Anderson-Inman & Horney, 1997) and this feature is especially helpful for international students (Chen, Fan, & He, 2012). Specific features such as pronunciation guides etc are found very helpful in learning of a language (Chartrand, 2016). Inman and Horney (1997) categorized the embedded features in an e-book as translational, illustrative, summarizing, instructional, enrichment, notational, collaborative and general purpose resources. Few examples of such features are highlighting and ability to take notes in the device itself (Waller, 2013).

#### **Convenience:**

The convenience factor in its myriad sense surrounding the usage of e-books is found to be the most important factor promoting the adoption of the same (Lai & Li, 2013)(Rowlands, Nicholas, Jamali, & Huntington, 2007). E-books can be accessed anywhere and at any time like while waiting for a bus, standing in a line and so on(Nicholas & Lewis, 2008)(Akpan, Agan, & Bassey, 2018). This convenience factor extends to sellers as well, due to the simplicity in distribution(Fojtik, 2015). Since digital devices are already infused into people lives to a great extent, it becomes effortless to use the same to access books as well (Akpan, Agan, & Bassey, 2018). Also the same e-book can be accessed through different devices depending on the situation (Fojtik, 2015). For example, an e-book can be accessed through the laptop while working on a project, the same can be accessed through smart phone to just refer it while not sitting in front of the laptop.

Ability to access e-book at home is most convenient for people with demanding schedules, which most people are in today's busy world(Appleton, 2004). E-books can be easily downloaded as well (Waller, 2013). The fact that the e-book reader is weightless when compared to the physical books proves to be a sure advantage (Chen, Fan, & He, 2012)(Gibson & Gibb, 2011) especially in the case of students who need to carry textbooks every day(Embong, Noor, Hashim, Ali, & Shaari, 2012). As far as the educational environment is concerned the inevitable change of traditional set up to a more technologically driven system supports the use of e-books more than anything (Waller, 2013). In addition to this, the process revolving the sharing of e-books is really simple in today's social media world (Chartrand, 2016).

### Physical space:

Since e-books are stored in digital devices, there is no need for an ounce of physical space for storing them(Rowlands, Nicholas, Jamali, & Huntington, 2007). Unlike physical books, with e-books it is possible to carry a large number of e-books always, in other wordse-books provide the opportunity to an individual to carry a libraryin hand (Fojtik, 2015)(Waller, 2013)(Rosso, 2009). In extension to this, at certain times it becomes unnecessary to store books even electronically as they are forever available on the web(Akpan, Agan, & Bassey, 2018). The simplicity around the backup and storage of e-books is considered a boon by multitude of people (Fojtik, 2015). Further the abundance of storage space available for storing e-books is considered the most advantageous feature (Gibson & Gibb, 2011)(Waller, 2013).

## **Searching:**

Searching for a term in an e-book takes almost no time in providing results unlike physical books where one has to skim the pages for hours and manual searching might even result it mistakes. Also free samples are available so that readers can go through them and decide whether or not to buy them. (Akpan, Agan, & Bassey, 2018)(Appleton, 2004)(Nicholas & Lewis, 2008). Such searching initiates a search for all the occurrences of the word in the document and helps the reader to navigate from one to other with much ease (Waller, 2013)(Lai & Li, 2013)(Anderson-Inman & Horney, 1997). The chances of stumbling upon irrelevant material and thereby wasting time is considerably reduced (Appleton, 2004). This search facility is not limited just to the document but extends to the World Wide Web when in need thus enhancing the reading experience (Chartrand, 2016).

## **Cost Factor:**

The lower price of the e-books is considered its best benefit in certain studies among students (Chen, Fan, & He, 2012), (Waller, 2013)especially from the view point of parents (Embong, Noor, Hashim, Ali, & Shaari, 2012). Further e-books are less expensive even if one decides to print it and read physically and also around three million e-books are available for free (Akpan, Agan, & Bassey, 2018).

### **Text Manipulation:**

E-book allows the users to customize the text according to their needs. The ability to resize or reshape the fonts proves to be very effective to aid senior readers to enjoy reading through e-books. (Akpan, Agan, & Bassey, 2018). This advantage is also suitable for people with visual impairments (Anderson-Inman & Horney, 1997)(Nicholas & Lewis, 2008)(Lai & Li, 2013). Text manipulation features are considered as an important factor that contributes to the increasing popularity of e-books (Fojtik, 2015).

#### **Environment:**

Using e-book as a sign towards protecting the environment is an acknowledged factor by today's environmentally conscious people (Gibson & Gibb, 2011). Even in the case of new editions, it is argued that updating an e-book causes comparatively no harm to the environment as that of reprinting a paper book (Waller, 2013). The indirect effect of saving trees while switching from print books to e-books is emphasised time and again (Lai & Li, 2013).

## Other advantages:

Updating an e-book with current information is a piece of cake due to the growth in technology unlike the procedural difficulties associated with printing new editions (Waller, 2013) and this feature is considered an important advantage of e-books especially by students (Rowlands, Nicholas, Jamali, & Huntington, 2007). One can back up your entire library using online backup services (Rosso, 2009). The concentration level of students is found to have increased while reading using an e-book (Khatri, 2020).

#### **DISADVANTAGES OF USING E-BOOKS:**

Despite the above discussed advantages e-books certainly possess certain disadvantages which are discussed in various literature.

- 1. **Lack of wide range of books:** All books are not available in the digital format. Lack of necessary titles as well as wide range of books are considered as the major reason for infancy stage of the e-book market (Akpan, Agan, & Bassey, 2018)(Appleton, 2004).
- 2. **Expensive:**Though e-books are inexpensive, the devices that are necessary to access them are costly (Dougherty, 2010)(Gibson & Gibb, 2011)(Lai & Li, 2013). This difficulty is especially felt among students without part-time employment (Chen, Fan, & He, 2012).
- 3. **Haptic Aspect:**Cuddling with a book can never be the same as cuddling with a computer (Anderson-Inman & Horney, 1997). The feel and smell of a print book is lost in an e-book (Gibson & Gibb, 2011), (Embong, Noor, Hashim, Ali, & Shaari, 2012). For those who consider reading as a personal and pleasure activity this sure proves to be a disadvantage.
- 4. **Device Dependability:**E-books cannot be accessed without a digital device, especially one that can accommodate the needs of that book. (Anderson-Inman & Horney, 1997)(Waller, 2013). The need to equip oneself with the operating of the device is necessary to ensure proper utilisation of the e-book (Chartrand, 2016). Further if anything goes wrong with the device, the efforts and resources spent on repair along with the possibility of losing the book is a sure disadvantage for e-books (Gibson & Gibb, 2011)(Waller, 2013). Those e-books with specific formats that can be accessed only through dedicated e-book readers such as KOBO and Kindle are found to have failed in gaining acceptance among the users(Nicholas & Lewis, 2008).
- 5. **Infrastructure Dependability:**Accessing an e-book requires electricity or at least a good set of batteries. (Anderson-Inman & Horney, 1997)(Gibson & Gibb, 2011). The limited battery life is argued to be a disadvantage (Waller, 2013). Also in case of online e-books the need to possess internet connectivity with good bandwidth is an absolute necessity.
- 6. **Technological difficulties:**Those who do not identify themselves with the evolving technology find it difficult to access e-books (Appleton, 2004). In an academic setting the instructors need to first familiarise themselves with the technology and then spend a substantial amount of time in training the wards for the same (Chartrand, 2016), (Embong, Noor, Hashim, Ali, & Shaari, 2012). This need for technological assistance can be felt on any field and not just in the academics (Lai & Li, 2013). The necessity to possess the different software that supports the different file formats of e-book discourages its usage further(Nicholas & Lewis, 2008).
- **7. Distractions:** When accessed through a handheld device rather than an e-book reader, the opportunities available for distraction are numerous (Chartrand, 2016).
- 8. **Too much Digital time:**Our lives are already engulfed by the digitalisation of everything. Adding 'reading' to that never ending list increases the time spent on digital devices multi fold especially, which is unhealthy both physiologically and psychologically(Chartrand, 2016), especially harming the eyes (Waller, 2013)(Chen, Fan, & He, 2012)(Lai & Li, 2013).
- 9. **Easy to lose:** As simple as it sounds to save numerous books in the digital form, it becomes as simple to lose it as well. Because e-books can be lost easily when data is not properly backed up (Chen, Fan, & He, 2012)
- 10. Lack of uniformity: Not all e-books are the same. Be it the formats of the file or even the embedded features, e-books are certainly ambiguous (Lai & Li, 2013). This profound lack of uniformity among the e-book file formats discourages the use of e-books. Not all e-books possess the annotation features usually preferred in a book by readers as well as restrictions in sharing the same between different users or at times even between different devices (Embong, Noor, Hashim, Ali, & Shaari, 2012) are similar other factors that discourages the use of e-books.

#### **CONCLUSION:**

The progress of e-books in the near future is definite (Chen, Fan, & He, 2012). The sooner we all adapt to this developing technology the better, as this change is inevitable and is here to stay (Waller, 2013). Not everyone is aware of the availability of the magnitude of e-books in the web for free as well as for sale. Hence it is necessary to provide necessary exposure to all to ensure that the advantages of e-books are extracted in full. Further, collaboration among the involved parties such as reader, author, distributor, etc is possible with e-books and thereby can enhance the experience of all parties involved. It can be noted that certain points (such as device dependability) are seen both as an advantage as well as disadvantage for using e-books. The major limitation of the study is that the papers reviewed belong to studies conducted in different parts of the world and hence cannot be generalised to any particular region. Further studies on this subject can be conducted on a region and focus on attributes specific to that region to arrive at a distinct conclusion on what is perceived as advantage and disadvantage by users.

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