TRENDS IN LIBRARY & INFORMATION *S*CIENCE IN NIGERIA:
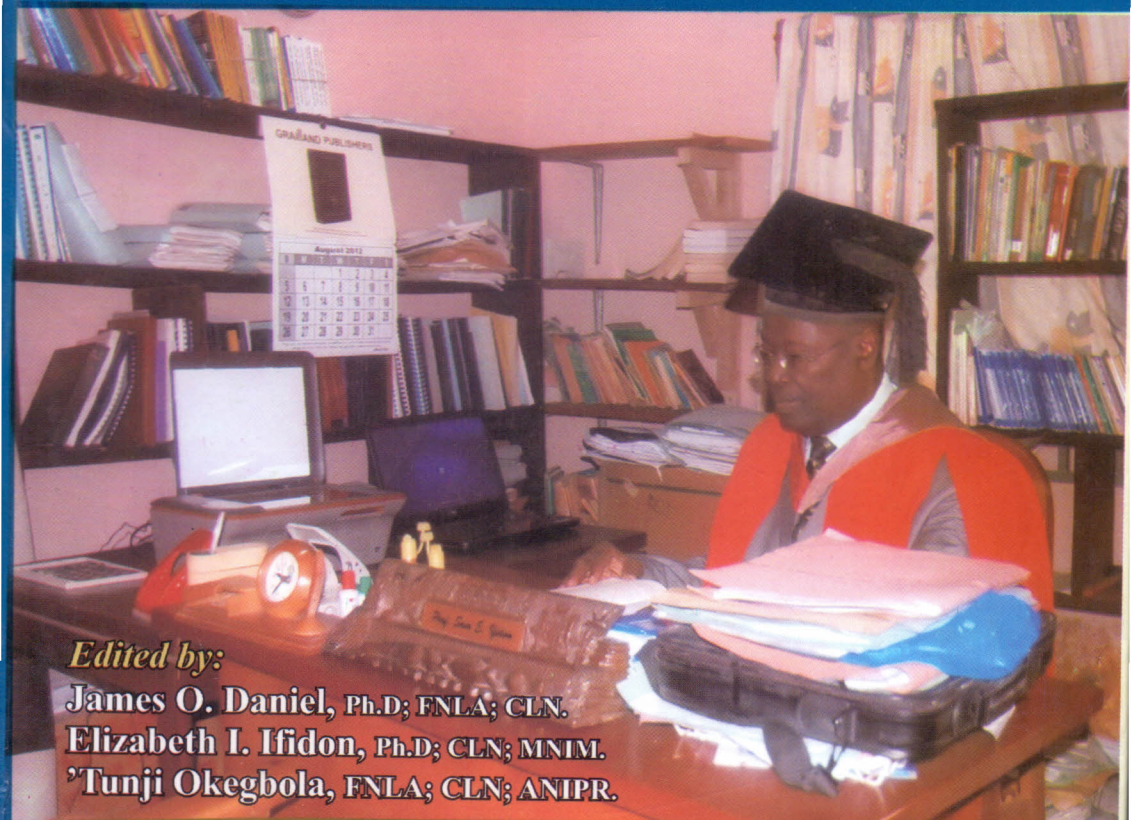
Festschrift in honour of Prof. Sam E. Ifidon

Edited by:

James O. Daniel, Ph.D; FNLA; CLN.

Elizabeth I. Ifidon, Ph.D; CLN; MNIM.

'Tunji Okegbola, FNLA; CLN; ANIPR.

TRENDS IN LIBRARY AND INFORMATION SCIENCE IN NIGERIA: A FESTSCHRIFT IN HONOUR OF PROFESSOR SAM E. IFIDON

Edited by:

James O. Daniel, Ph.D; FNLA; CLN.

Elizabeth I. Ifidon, Ph.D; CLN; MNIM.

'Tunji Okegbola, FNLA; CLN; ANIPR.

© Sam E. Ifidon

First Published, 2012

Chapter Five

The eBook Evolution: Formats and Design - Yetunde Abosede Zaid

Chapter Six

Building the Requisite Capacity for the Library and Information Professionals of the 21st Century - **James O. Daniel**

THE eBOOK EVOLUTION: FORMATS AND DESIGN

Yetunde Abosede Zaid

5.1   Introduction

What is an eBook?

Before one delves into the specifics about electronic publishing, it is important to note exactly what an eBook is and what purpose an eBook serves. Simply put, the term "electronic book" is self-explanatory: an eBook can be a novel, collection of stories and/or poetry, self-help manual, a treatise, or any document of book length. eBooks may be as short as five thousand words or well over a hundred thousand. Some eBooks may have illustrations and charts embedded within the pages, and others may prove to be more interactive and feature audio and/or video capability. Some eBooks are registered with *Books in Print* and made available as downloadable files or on CD-ROMs. Some eBook publishers assign ISBN numbers to their titles, while others may register the works with the Copyright Office. Many publishers consider eBook production a subsidiary right in their contracts, and may demand those rights from an author during negotiations. The fundamental difference between an eBook and a print book, of course, is that the eBook is an electronic document devised to be read on a computer or special handheld device.

5.2   eBook Readers

The future steps in eBook evolution will be directly linked to company power struggle. With dedicated eBook Readers exploding onto the market over the last few years, and with numerous online book stores, every company wants a slice of the pie. In 2005 Sony was the first company to introduce a personal eBook reader, which featured the new technology called e-Ink Griffey (2010). The e-Ink display monitors are perfect for e-Readers, due to their low power consumption, and the fact that they are also easy on the eye. Griffey (2010). This makes them ideal for travelers and people on the move. A whole book collection could now be stored on one handheld device. Amazon, which was the first to sell books online in 1995 (Lebert, 2009) soon had a foot in the door, as November 2007 saw the introduction of their own eBook Reader. Both Amazon with their Kindle and Sony would continue to put out newer versions of their devices, making for a challenging market.

Realizing the great potential in eBooks and digital publishing, Barnes and Noble introduced their own eBook Reader in 2009, called the Nook Griffey (2010). Many other companies have joined the rat race, including Apple, who introduced the IPad in 2010 (Apple Inc.). In an effort to keep and manage a customer base, different companies publish eBooks in different formats, or computer languages. This effectively means that books are not readable across different devices. For instance, a book bought from Kindle will not read on a Nook device. In the third quarter of 2010, eBook sales revenues were at a staggering $119.7 million dollars in the US, compared to $46.5 million in 2009 (International Digital Publishing Forum). In July 2010 Amazon announced that Kindle sales topped hard copy books, claiming that they have sold 143 digital books for every 100 hardbacks. Teather (2010). With these new devices one can carry around for reading hundreds of ebooks in a device smaller than a single paperback. The advent of these devices has nearly doubled ebook sales in the last couple of years.

5.3   What is the purpose of an eBook?

Electronic books are used for the same purposes as print books, namely for entertainment, business, or news and liesure. The Electronic Book (eBook) has become more and more popular in recent years. Technology is fast advancing, and the society seems to move even faster. The eBook has become a luxury in our everyday life, but more importantly, it has become a necessity. This paper will take a look at the evolution of the eBook, its format and design. It will highlight some of the key factors that influenced and shaped it as well as the various e-book readers available for users to enjoy it.

5.4   The Evolution and Historical Development of eBooks

In 1971, Michael Hart was given an operator's account to access the Xerox Sigma V mainframe at the University of Illinois by his friends, who happened to be part of the operator crew. The gift was a $1000 worth of free computer time. (Hart, 2010). In order to make the best use of the free computer time, Michael decided to share this gift with others. From that time, he realized that the future of computers was, in fact, not in computing, but rather in sharing information. This was the beginning of Project Gutenberg. Michael began to search for books and literature that were in the public domain, and converted them into electronic books, and shared them. The U.S Declaration of Independence was the first to be converted, a copy of which he had in his bag at the time *Lebert (2008)*. As it were, he decided to use the simplest form of text- Plain Vanilla ASCII Lebert, (2009). Historically, ASCII, which stands for American Standard Code for Information Interchange, was developed in 1963 *Brandel (1999)* by Bob Bemer, who was an IBM staff at that time. Both Michael and Bemer had the idea to share information paramount in their minds even though they lived at different times and places.

One of the problems they faced was that the different families of computers had no way of communicating with each other. This new language would make it possible. Although it has gone through more stages of development, ASCII is still used today. Heart (2007) stated that "The mission of Project Gutenberg is simple: To encourage the

creation and distribution of eBooks." The King James Bible (1769) was the tenth book to be completed by Project Gutenberg in August, 1989. Lebert (2009).

The Internet played a significant role in the success of Project Gutenberg and the distribution of eBooks. Although it was launched in 1974 with the creation of Transmission Control Protocol/Internet Protocol (TCP/IP) by Vinton Cerf and Bob Kahn, the Internet only really started spreading in 1983. Lebert, (2009). It had a major boost between 1989-1990 with the invention of the Web, and a second boost in November 1993 with the release of the first Internet browser, Lebert, (2009). In 1990 there were merely 2500 Internet users. Ten years later, by December 2000, the number of internet users would increase to 300 million. Lebert, (2009). After the boost in Internet technology, things took a rapid turn, the web made circulation of eBooks easier and also allowed for better access. By April 21, 2008, Project Gutenberg had released 25, 000 eBooks, free of charge. Currently, they have released over 100, 000 titles. Lebert, (2008).

Another significant part in the history of eBook development was the contributions of Alan Kay who, in 1968, had an idea for a personal computer which he built; first using a card board model, which filled it with lead pellets to determine a desirable weight. Johnstone (1999). The technology for his idea, however, would not come for another ten years. The best they could do at Xerox PARC at the time was to make a workstation that Alan Kay called the Interim Dynabook. Johnstone (1999). Xerox named it the Alto, which would later be the inspiration for the Apple Macintosh. Alan Kay published an article in 1977 about his idea for the Dynabook personal computer. Johnstone, (1999). Eleven years later, Tetsuya Mizoguchi from Toshiba would realize Alan Kay's vision. In honour of Alan Kay, Toshiba named their computer *The Dynabook,* the first portable computer. The Dynabook was unique in the sense that it was battery powered, and did not rely on AC power like other computers of its time. Johnstone (1999). This was the beginning of a new era in computer technology, which would allow for electronic books to be loaded onto personal, portable devices.

In 1994, National Academy Press (NAP) started to publish some of their articles and journals online. Lebert (2009). Massachusetts Institute of Technology (MIT) followed in the footsteps of NAP in 1995. Then, in 1997, digital publishing started to become main stream. Digital publishing became a cheaper alternative for educational, scientific and academic publishing, with universities and other institutions taking advantage of this. A company called Adobe launched Portable Document Format (PDF) in 1993. The PDF format became a standard worldwide, and with Adobe providing their Acrobat Reader software free of charge PDF became one of the most popular formats in the market today. Adobe also provides software to create PDF files, and to convert other formats into PDF. In 2001 Acrobat partnered with Amazon.com, and they made their titles available to PDA devices. In 2003 Adobe launched The Digital Media Store, an online bookstore, featuring titles from some of the largest publishing labels, as well as online magazines and newspapers. Lebert, (2009).

eBooks are a very good resource for learners as knowledge can be delivered and accessed instantly wherever you are, and whenever you need it. The idea of eBooks is all about sharing knowledge. eBooks have become amazingly popular and are quickly replacing classic bound paper books. eBooks have endless advantages over conventional printed books, one of which is that home users and small businesses can finally publish their own works at low costs for huge profits. It is easy to both publish and sell ebooks through the Internet, and they are one of the fastest growing markets in the world with sales figures increasing by millions of dollars annually.

5.5   eBook Formats Description

This section attempts to define and identify all or most of the eBooks formats. With the great proliferation of formats a new user can easily become confused. The most important ones are always the ones that work on the device or devices you own but if you have a choice the most important ones are the ones that have the most eBook

dealers or most eBooks available. A writer or publisher has many options when it comes to choosing a format for publication. While the average end-user might arguably simply want to read books, every format has its proponents. The storage size for texts without images depends on the file format, but is always relatively small compared with a richly illustrated text. Formats available include:

- **Amazon Kindle**
  Format: Kindle
  Published as: Azw

  With the launch of the Kindle eBook reader, Amazon.com created the proprietary format, AZW. It is based on the Mobipocket standard, with a slightly different serial number scheme (it uses an asterisk instead of a dollar sign) and its own DRM formatting. Because the eBooks bought on the Kindle are delivered over its wireless system called Whispernet, the user does not see the AZW files during the download process. The Kindle format is now available on a variety of platforms.

- Interior view of Edo State Public Library, ICT Section

- **Plain text files**
  Format: text
  Published as: txt

ebooks in plain text exist. The size in bytes is simply the number of characters, including spaces, and with a new line counting for 1 or 2. For example, the Bible, an 800,000-word book, is about 4 MB. The ASCII standard allows ASCII-only text files to be interchanged and readable on Unix, Macintosh, Microsoft Windows, DOS, and other systems. These differ in their preferred line ending convention and their interpretation of values outside the ASCII range (their character encoding). Conversion of files from one to another line-ending convention is easily possible with free software on all computers.

- **Hypertext Markup Language**
  Format: Hypertext
  Published as: htm; .html

HTML is the markup language used for most web pages. eBooks using HTML can be read using a Web browser. The specifications for the format are available without charge from the W3C.HTML adds specially marked meta-elements to otherwise plain text encoded using character sets like ASCII or UTF-8. As such, suitably formatted files can be, and sometimes are, generated by hand using a plain text editor or programmer's editor. Many HTML generator applications exist to ease this process and often require less intricate knowledge of the format details involved.

HTML on its own is not a particularly efficient format to store information in, requiring more storage space for a given work than many other formats. However, several e-book formats including the Amazon Kindle, Open eBook, Compressed HM, Mobipocket and EPUB store each book chapter in HTML format. They use ZIP compression to compress the HTML data, images, metadata and style sheets into a single, significantly smaller, file. HTML files encompass a wide range of standards and displaying HTML files correctly can be complicated. Additionally many of the features supported, such as

forms, are not relevant to ebooks.

- **Open Electronic Package**
  Format: Open eBook
  Published as: opf

OPF is an XML-based ebook format created by eBook Systems; it has been superseded by the EPUB electronic publication standard.

- **TomeRaider**
  Format: TomeRaider
  Published as: tr2; .tr3

  The TomeRaider e-book format is a proprietary format. There are versions of TomeRaider for Windows, Windows Mobile (aka Pocket PC), Palm, Symbian, iPhone and more[specify]. Several Wikipedias are available as TomeRaider files with all articles unabridged, some contain nearly all images. Capabilities of the TomeRaider3 ebook reader vary considerably per platform: the Windows and Windows Mobile editions support full HTML and CSS. The Palm edition supports limited HTML (e.g., no tables, no fonts), and CSS support is missing. For Symbian there is only the older TomeRaider2 format, which does not render images or offer category search facilities. Despite these differences any TomeRaider ebook can be browsed on all supported platforms. The Tomeraider website claims to have over 4000 ebooks available, including free versions of the Internet Movie Database and Wikipedia.

- **Arghos Diffusion**
  Format: Arghos Reader
  Published as: aeh

  The AEH format is an XML-based proprietary format developed by the French firm Arghos Diffusion. AEH files use a proprietary DRM and encryption method and are readable only in the Arghos Player. It supports various input formats for text, audio or video, such as PDF, WMA, MP3, WMV, and allows multiple interactive functions such as bookmarking, advanced plain-text

searching, dynamic text highlighting, etc.

- **Flip Books**
  Format: Interaxive media
  Published as:

  A "Flip Book" is a type of eBook distinguished by virtual pages that actually "flip", much like turning pages of paper in a real book or magazine. The first dynamic Flip Book Reader was developed in 2003/2004 by Interaxive Media for Nishe Media (Canada) and was therefore called "Nishe Pages". The first version was produced in part by Cybaris (Canada) and was first publicly showcased in August 2004. Soon thereafter, many copycat "flip books" started appearing thanks to technological advances in Macromedia Flash, mostly hard coded using Flash components.

  The original software remains unique in that it is powered by a complete server-based CMS system that allows the books to be created, published, and viewed remotely from a web server without requiring any custom software to be installed. Nishe Media went defunct in 2004, leaving the unfinished software to Interaxive Media whch continued its development in Hong Kong. Though not widely used outside of Asia, it is now at version 3.0 and can be a server-based eBook platform. It remains privately held by the original developer, Ryan Sutherland, owner and founder of Interaxive Media.

- **ANSI/NISO Z39.86 (DAISY)**
  Format: DAISY
  Published as:

  The Digital Accessible Information System (DAISY) is an XML-based open standard maintained by the DAISY Consortium for people with print disabilities. DAISY has wide international support with features for multimedia, navigation and synchronization. A subset of the DAISY format has been adopted by law in the United States as the National Instructional Material Accessibility Standard (NIMAS), and K-12 textbooks and instructional materials are now required to be provided to students with disabilities.

DAISY is already aligned with the EPUB open standard, and is expected to fully converge with its forthcoming EPUB3 revision.

- **FictionBook (Fb2)**
  Format: FictionBook
  Published as: .fb2

FictionBook is a popular XML-based e-book format, supported by free readers such as FBReader, Bebook, Haali Reader and STDU Viewer.

- **Text Encoding Initiative**
  Format: TEI Lite
  Published as: .xml

TEI Lite is the most[citation needed] popular of the TEI-based (and thus XML-based or SGML-based) electronic text formats.

- **Plucker**
  Format: Plucker
  Published as:

  Plucker is an Open Source free mobile and desktop e-book reader application with its own associated file format and software to automatically generate Plucker files from text, PDF, HTML, or other document format files, web sites or RSS feeds. The format is public and well-documented. Free readers are available for all kinds of desktop computers and many PDAs.

- **Compiled HM**
  Format: Microsoft Compiled HTML Help
  Published as: chm

  CHM format is a proprietary format based on HTML. Multiple pages and embedded graphics are distributed along with proprietary metadata as a single compressed file. In contrast, in HTML, a site consists of multiple HTML files and associated image files in standardized formats.

• Portable Document Format

Format: Adobe Portable Document Format

Published as: .pdf

This is file format created by Adobe Systems. It was initially to provide a standard form for storing and editing printed publishable documents. The format derives from PostScript, but without language features· like loops, and with added support for features like compression and passwords. Because PDF documents can easily be viewed and printed by users on a variety of computer platforms, they are very common on the World Wide Web. The specification of the format is available without charge from Adobe.

PDF files typically contain brochures, product manuals, magazine articles - up to entire books, as they can embed fonts, images, and other documents. A PDF file contains one or more zoomable page images. Since the format is designed to reproduce page images, the text traditionally could not be re-flowed to fit the screen width or size. As a result PDF files designed for printing on standard paper sizes are less easily viewed on screens with limited size or resolution, such as those found on mobile phones and PDAs. Adobe has addressed this drawback by adding a re-flow facility to its Acrobat Reader software, but for it to work the document must be marked for re-flowing at creation - meaning that existing PDF documents won't benefit unless they are tagged and resaved. The Windows Mobile (aka Pocket PC) version of Adobe Acrobat will automatically attempt to tag a PDF for reflow during the synchronization process using an installed plugin to Active Sync. However, this tagging process will not work on most locked or password protected PDF documents. It also doesn't work at present (2009-10) on the Windows Mobile Device Center (the successor to Active Sync) as found in Windows Vista and Windows 7. Thus, automatic tagging support during synchronization is limited to Windows XP/2000.

Multiple products support creating and tagging PDF files, such as Adobe Acrobat, PDFCreator, OpenOffice.org, iText, and FOP, and several programming libraries. Adobe Reader (formerly called

Acrobat Reader) is Adobe's product used to view PDF files; third party viewers such as xpdf are also available. Mac OS X has built-in PDF support, both for creation as part of the printing system and for display using the built-in Preview application. Later versions of the specification add support for forms, comments, hypertext links, and even interactive elements such as buttons for forms entry and for triggering sound and video. Such features may not be supported by older or third-party viewers and some are not transferable to print.

PDF files are supported on the following e-book readers: Mobipocket, iRex iLiad, iRex DR1000, Sony Reader, Bookeen Cybook, Foxit eSlick, Amazon Kindle (1, 2, International & DX), Barnes & Noble Nook, the iPad, PocketBook Reader, Bebook Neo and the Kobo eReader. Also, pdf files can be read on the iPod Touch using the free Stanza app.

- Extension to John Harris Library University of Benin showing the Link between the main Library and the E-Learning Centre

- **PostScript**
  Format: PostScript
  Published as:.ps

  PostScript is a page description language used in the electronic and desktop publishing areas for defining the contents and layout of a printed page, which can be used by a rendering program to assemble and create the actual output bitmap. Many office printers directly support interpreting PostScript and printing the result. As a result, the format also sees wide use in the Unix world.

- **DjVu**
  Format: DjVu
  Published as: .djvu

  DjVu is a format specialized for storing scanned documents. It includes advanced compressors optimized for low-colour images, such as text documents. Individual files may contain one or more pages. DjVu files cannot be re-flowed. The contained page images are divided in separate layers (such as multi-colour, low-resolution, background layer using lossy compression, and few-colours, high-resolution, tightly-compressed foreground layer), each compressed in the best available method. The format is designed to decompress very quickly, even faster than vector-based formats. The advantage of DjVu is that it is possible to take a high-resolution scan (300-400 DPI), good enough for both on-screen reading and printing, and store it very efficiently. Several dozens of 300 DPI black-and-white scans can be stored in less than a megabyte.

- **Microsoft LIT**
  Format: Microsoft Reader
  Published as: .lit

  DRM-protected LIT files are only readable in the proprietary Microsoft Reader program, as the .LIT format, otherwise similar to Microsoft's CHM format, includes Digital Rights Management features. Other third party readers, such as Lexcycle Stanza, can read unprotected LIT files. There are also tools such as Convert Lit, which

can convert .lit files to HTML files or OEBPS files. The Microsoft Reader uses patented ClearType display technology. In Reader, navigation works with a keyboard, mouse, stylus, or through electronic bookmarks. The Catalog Library records reader books in a personalized "home page", and books are displayed with ClearType to improve readability. A user can add annotations and notes to any page, create large-print e-books with a single command, or create free-form drawings on the reader pages. A built-in dictionary allows the user to look up words.

- **EReader**
  Formerly Palm Digital Media/Peanut Press
  Format: Palm Media
  Published as: .pdb
  eReader is a freeware programme for viewing Palm Digital Media electronic books. Versions are available for iPhone, PalmOS, WebOS, Android, Symbian, BlackBerry, Windows Mobile Pocket PC/Smartphone, desktop Windows, and Macintosh. The reader shows text one page at a time, as paper books do. eReader supports embedded hyperlinks and images. Additionally, the Stanza application for the iPhone and iPod Touch can read both encrypted and unencrypted eReader files.

The Company's web site - ereader.com maintains a wide selection of eReader-formatted e-books, available for purchase and download, with a handful of public domain titles available for free. Those books that aren't free are encrypted, with the key being the purchaser's full name and credit card number. This information is not preserved in the e-book. A one-way hash is used, so there is no risk of the user's information being extracted. The programme supports features like bookmarks and footnotes, enabling the user to mark any page with a bookmark, and any part of the text with a footnote-like commentary. Footnotes can later be exported as a Memo document.

The company also offers two Windows/MacOS programme for producing e-books: the Dropbook, which is free, and the eBook Studio, which is not. Dropbook is a file-oriented PML-to-PDB

converter; eBook Studio incorporates a WYSIWYG editor. Both programmes are compatible with simple text files. There is also support for an integrated reference dictionary (with many options up to and including a 476,000-word Merriam-Webster Dictionary, including pronunciation keys) so that any word in the text can be highlighted and looked up on the dictionary instantly. Commercial fonts can also be individually purchased and downloaded at the company's web site, ereader.com.

On July 20, 2009, Barnes & Noble announced that the eReader format will be the method they will use to deliver ebooks. Updated versions of the Palm Digital programmes for Apple iPhone/Touch, Blackberry, Mac OS X, and Windows platforms were made available on the Barnes & Noble eBooks website. On October 20, 2009, Barnes & Noble announced[9] that their Nook Reader will support the eReader format. eReader format is also supported by the discontinued eSlick, an e-reading device from Foxit Software. It is not currently supported on Barnes & Noble's NookColor.

- **Desktop Author**
  Format: DNL Reader
  Published as: .dnl; .exe

  Desktop Author is an electronic publishing suite that allows creation of digital web books with virtual turning pages. Digital web books of any publication type can be written in this format, including brochures, e-books, digital photo albums, e-cards, digital diaries, online resumes, quizzes, exams, tests, forms and surveys. DesktopAuthor packages the e-book into a ".dnl" or ".exe" book. Each can be a single, plain stand-alone executable file which does not require any other programmes to view it. DNL files can be viewed inside a web browser or stand-alone via the DNL Reader. DNL format is an eBook format, one which replicates the real life alternative, namely page turning Books. The DNL e-Book is developed by DNAML Pty Limited, an Australian company established in 1999. A DNL e-Book can be produced using DeskTop Author or DeskTop Communicator.

- **Newton eBook**

  Format: Newton eBook

  Published as: pkg

  Commonly known as an Apple Newton book; a single Newton package file can contain multiple books (for example, the three books of a trilogy might be packaged together). All systems running the Newton operating system (the most common include the Newton Message Pads, eMates, Siemens Secretary Stations, Motorola Marcos, Digital Ocean Seahorses and Tarpons) have built-in support for viewing Newton books. The Newton package format was released to the public by Newton, Inc. prior to that company's absorption into Apple Computer. The format is thus arguably open and various people have written readers for it (writing a Newton book converter has even been assigned as a university-level class project.

  Newton books have no support for DRM or encryption. They do support internal links, potentially multiple tables of contents and indexes, embedded gray scale images, and even some scripting capability (for example, it's possible to make a book in which the reader can influence the outcome. Newton books utilize Unicode and are thus available in numerous languages. An individual Newton book may actually contain multiple views representing the same content in different ways (such as for different screen resolutions).

- **Mobipocket**

  Format: Mobipocket

  Published as: .prc; .mobi

  The Mobipocket ebook format is based on the Open eBook standard using XHTML and can include JavaScript and frames. It also supports native SQL queries to be used with embedded databases. There is a corresponding ebook reader. A free eBook of the German Wikipedia has been published in Mobipocket format. The Mobipocket Reader has a home page library. Readers can add blank pages in any part of a book and add free-hand drawings. Annotations - highlights, bookmarks, corrections, notes, and drawings - can be applied, organized, and recalled from a single location. Images are

converted to GIF format and have a maximum size of 64K sufficient for mobile phones with small screens, but rather restrictive for newer gadgets. Mobipocket Reader has electronic bookmarks, and a built-in dictionary.

The reader has a full screen mode for reading and support for many PDAs, Communicators, and Smartphones. Mobipocket products support most Windows, Symbian, BlackBerry and Palm operating systems. Using WINE, the reader works under Linux or Mac OS X. Third-party applications like Okular and FBReader can also be used under Linux or Mac OS X, but they work only with unencrypted files. The Amazon Kindle's AZW format is basically just the Mobipocket format with a slightly different serial number scheme (it uses an asterisk instead of a Dollar sign), and .prc publications can be read directly on the Kindle. The Kindle AZW format also lacks some Mobipocket features such as javascript. Mobipocket has developed an .epub to .mobi converter called KindleGen.

- **EPUB**
  Format: IDPF/EPUB
  Published as: epub

The Epub or OEBPS format is an open standard for e-books created by the International Digital Publishing Forum (IDPF). The EPUB format is rapidly gaining popularity and as of 2011 is the most widely supported vendor-independent XML-based e-book format. The format can be read at least by the Kobo eReader, Apple's iBooks app running on iOS devices such as the iPhone, iPod Touch and iPad, Barnes and Noble Nook, Sony Reader, BeBook, Bookeen Cybook Gen3 (with firmware v. 2 and up), COOL-ER, Adobe Digital Editions, Lexcycle Stanza, BookGlutton, AZARDI, FBReader, Aldiko and WordPlayer on Android, Freda on Windows Mobile and Windows Phone 7, and the Mozilla Firefox add-on EPUBReader. Several other desktop reader software programmes are currently implementing support for the format, such as dotReader, FBReader, Mobipocket, uBook and Okular. Another software .epub reader, Lucidor, is in beta. The only notable device lacking integrated support

for the EPUB format is the Amazon Kindle, although there have recently been reports that the Kindle will soon support this format

- **Broadband eBooks (BBeB)**
  Format: Sony media
  Published as: .lrf; .lrx

  The digital book format used is by Sony Corporation. It is a proprietary format, but some reader software for general-purpose computers, particularly under Linux (for example, calibre's internal viewer has the capability to read it.) The LRX file extension represents a DRM encrypted eBook.

- **Comic Book Archive file**
  Format: compressed images
  Published as: .cbr

  A Comic Book Archive file or ComicBook Reader File consists of a series of image files, typically PNG (lossless compression) or JPEG (lossy compression) files, stored as a single archive file, for the purpose of sequential viewing of images especially comic books. The idea was made popular by the CDisplay image viewer; since then, many viewers for different platforms have been created. Comic Book Archive files are not a distinct file format, only the file name extension differs from a standard file of the given archive type. Some applications support additional tag information (like artists or story information) in the form of embedded XML files in the archive, or use of the Zip comment function.

- **Multimedia eBooks**
  Format: Eveda
  Published as: .exe or .html

  A multimedia eBook is media and book content that utilizes a combination of different book content formats. The term can be used as a noun (a medium with multiple content formats) or as an adjective describing a medium as having multiple content formats. The 'multimedia ebook' term is used in contrast to media which only

utilize traditional forms of printed or text books. Multimedia ebooks include a combination of text, audio, images, video, and/or interactive content formats. Much like how a traditional book can contain images to help the text tell a story, a multimedia ebook can contain other elements not formerly possible to help tell the story. With the advent of more widespread tablet-like computers, such as the smartphone, some publishing houses are planning to make multimedia ebooks, such as Penguin.

5.6   Why Are There Different e-book Formats?

Advances in technology is the major reason. Just like the transition from VHS to DVD and now to Blu-Ray, older formats which were created to solve the problems faced at that time are replaced with newer formats that better meet need of today. A great example of this is the old books people read back in the 90's on their PDAs. Those devices were very limited in what they could display. E-readers today are much more advanced. They can display large images, and handle advanced formatting. These newer devices needed formats that can provide these features.

Another major reason is exclusivity. Many vendors like to have and control their own formats so they are not dependent on outside companies. They also have the benefit of being able to license their format for use by others. This also allows them to lock users into their platform. E-books, being relatively new, are undergoing the same growing pains that Betamax and VHS or HD-DVD and Blu-Ray went though. The EPUB format, from the International Digital Publishing Forum, is an industry standard intended to reduce these problems.

5.7   Conversion of eBooks

Generally, converting between e-book formats does have some limitations. One limitation using a tool like Calibre is the inability to edit the book before conversion. Calibre simply moves the content and formatting from one format to another. It is not an editing tool. If there are typos in the text, you will need to use a dedicated

editing tool such as Sigil or Book Designer.

Another issue that often arises is missing formatting. Not all e-book formats support the same formatting. It can be lost when converting to a format that supports limited or no formatting. Basics like bold and italics will be preserved in most cases but complex page layout may not be. MOBI and EPUB both support complex formatting so you won't have to worry about this when using these formats.

Finally converting will only shift what the input provides into another format. It will not add anything that was not already in the input to the output. So if the input is poorly formatted, the output will be too.

Digital Rights Management (DRM) was designed and created to prevent unlimited copying of an electronic file (although some e-book users would also note that it is a handy way for companies to try to lock them into specific brands). DRM affords different books various rights as determined by the publisher and seller. Some can be read on more than one device. Some will allow for partial copying and printing. Simply put, DRM restricts what you can do with an e-book. Basically, any e-book with DRM cannot be converted to a different format. This is because conversion itself would require the removal of the DRM. Not all e-book formats support DRM and different e-book formats support different sets of privileges granted by the DRM. There is no way to move the DRM with the content when converting thus DRM prevents conversion. You might be tempted to look for some way to remove DRM from e-books in order to facilitate conversion.

5.8 Associated Problems of Formats

It is quite difficult to say which the best format is, considering how young this particular field is. Each format has its own pluses and minuses, the most popular being those which allow the search of a certain term or phrase within the text.

The second major problem is that of piracy. The e-books are circulating almost for free on the Internet, and can be very easily found by using the most common file-sharing programmes. It is also

true that people are not so interested in them, as they want to get the latest movies, for example (which says a lot about the people's reading habits), but this doesn't really change the fact that, after all, because of this situation, authors are losing money. This is probably the reason why most writers oppose the idea of transferring into a digital format all of their works, since that would strongly diminish the sales of common paperbacks. However, this is one of the most important problems of paperbacks nowadays. They are generally too expensive (as their amount is generally low, the production costs are higher), and that's why people prefer waiting for the movie based on that particular book or for the moment someone will decide to turn it into an e-book, and share it on the Internet. This situation offers a great boost to e-books, since the costs of publishing book of this type are practically close to zero.

A third problem is that of viewing such materials. Reading such a book on the computer's screen for hours is not exactly the healthiest thing in the world. However, there are some solutions even to this issue, two of the most important being text-to-speech programmes (the "voices", however, are not always quite intelligible) and devices designed especially for reading e-books, like those developed by Philips or Sony, which are less harmful for the eyes. Moreover, as the desktop display's technology advances, they're becoming less and less stressful for the eyes, and it's quite possible that, at some point, the eye won't detect any differences between reading a page from a "traditional book", and reading a page from an e-book.

5.9 Creation and Design of eBooks

You can publish it yourself, sell eBooks online through your own website as well as others like Amazon, and reap huge profits. So, clearly the next question is how can you begin to publish and sell eBooks yourself. Anyone, especially the Librarians can do it, and the best way to start is to grab a guide on how to create an eBook, and partner up with an established firm to make sure everything goes smooth and easy for your first book. Fortunately both of these are

extremely simple to do and you can learn how right here on this page, so keep reading. Let's first go over the basic steps to successful eBook creation:

i.   Come up with a concept and write or have someone else write the ebook's basic text.

ii.   Get or design any graphics that will go in the book to spice it up.

iii.   Edit your eBook and put it all together the way you want it to look to readers.

iv.   Publish the eBook as a PDF or other popular format.

v.   Put your eBook up on a website that sells it.

vi.   Sit back and enjoy your profits.

●   Exterior view of E-Learning Centres, John Harris Library, University of **Benin,** Benin City, Nigeria

5.10 The Benefits and Advantages of eBooks?

I have earlier discussed the problems of eBooks formats; it is important to acquaint you with some of the benefits of the eBook.

i. eBooks are delivered almost instantaneously. You can purchase, download and start reading them within minutes, without leaving your chair. You don't have to go to a bookstore to buy them, neither wait for them for days, weeks and sometimes more to arrive in the mail.

ii. No trees are required to manufacture paper for the pages of eBook.

iii. When you need certain information, you can get it immediately, by downloading an eBook.

iv. Many eBooks are sold nowadays with bonuses, which you usually do not get with a printed book. This adds value to your purchase.

v. Ebooks take up less space. You practically don't need any space to store them. You don't need a library or a room space for them. You can store hundreds and thousands of ebooks in your computer.

vi. Ebooks are portable. You can carry a whole library of hundreds of books with you, on CD, on a laptop, notebook or any ebook reader, without worrying about their weight.

vii. With today's technology you can read eBooks anywhere, on the bus, train, airplane and while standing in a queue.

viii. eBooks are more safely stored and carried from one place to another, than ordinary books. They also withstand time more than books.

ix. eBooks can show links, for easy access to more information and related websites.

x. eBooks are searchable. You can easily search for any information in an ebook, instead of turning page after page.

xi. ebooks can be interactive and contain audio, video and animations, which can enhance the message that the author is trying to convey.

xii.   As eBooks are delivered through the Internet, there are no packing and shipping expenses.

xiii. eBooks can be printable, so that if you wish to read an ebook in the traditional way, you can very inexpensively print it with your home printer or at any printing shop.

xiv.   Fonts in eBooks can be resized, making it easier to read for people with disabilities. With an additional software it is possible to turn some of the ebooks into audio books.

xv.   eBooks are very easy to sell and distribute.

xvi.   It is very simple and easy to purchase and download an ebook. People living in big modernized cities, in a remote village in a far away country or on a small island, can equally access an eBook. It takes them the same amount of time to purchase and download an eBook, provided you have an Internet connection.

xvii. It is possible to purchase an eBook 24 hours a day, every day of the year, from the comfort of your own house or office. You can purchase and download an eBook, even if you are on a vacation, if you have a laptop and wireless Internet connection.

5.11   Conclusion

During its history and development, the ebook has truly claimed its place in the publishing industry. It has been shaped and formed by so many different factors. From the early days of Michael Hart, who had a vision most sincere and honest, to major power houses like Amazon, the eBook has yet an amazing journey ahead of it. It is quite possible that e-books are really the future, and that, at some point, classical, paperbacks will be considered just collectors' items. This moment is still far away, but the signs of its arrival are already visible. However, this future is conditioned by two major factors- the development of technologies that allow an ebook to be read just as easy as a normal one, and the establishment of a channel of distribution that will eliminate all the "middlemen" (agents, publishing houses, etc.), between an author and its public. Whether

these 2 factors will be attained or not, only time will tell. The truth is-people are already spending a lot of time in front of their computers, so why not read an ebook, instead of doing something else?

REFERENCES

Brandel, M. (1999). The Debut of ASCII', CCN, Retrieved from http://edition.cnn.com/TECH/computing/9907/06/1963.idg index.html. (June 26, 2011)

Chandler, S. (2007). From Entrepreneur to Infopreneur: Make Money with Books, ebooks, and Information Products. Hoboken, N.J.: John Wiley

Cope, B., and Mason, D. (2002). Markets for Electronic Book Products. C-2-C series, bk. 3.2. Altona, Vic: Common Ground Pub.

Griffey, J. (2010). 'Electronic Book Readers' in Gadgets and Gizmos: Personal Electronics and the Library, Library Technology Reports, pp.7-19.

Henke, H. (2001). Electronic Books and ePublishing: A Practical Guide for Authors. London: Springer.

Apple inc. (2011). Apple Retrieved from: http://www.apple.com/pr/library/2010/03/05ipad.html. (June 26, 2011)

Lebert, M. (2008). Project Gutenberg 1971-2008. Retrieved from http://www.gutenberg.org/catalog/world/readfile?fk_files=9 18645&pageno=24. (June 26, 2011)

Lebert, M.(2009). A Short History of eBooks. University of Toronto, Canada. Retrieved from: http://www.etudes-francaises.net/dossiers/ebookEN.pdf. (June 26, 2011)

Rich, J. (2006). Self-publishing for Dummies. Hoboken, N.J.: Wiley.

Teather, D.(2010). 'Amazon's eBook milestone: Digital Sales Outstrip Hardbacks for First Time in US', The Guardian, 20 July.
Retrieved from:
http://www.guardian.co.uk/books/2010/jul/20/amazon-ebook-digital-sales-hardbacks-us. (June 26, 2011)

About The Book

A **Festchrift** is a collection of writings in honour of anybody who has distinguished himself in his chosen field. It is a very rare privilege. Professor Sam E. Ifidon has been adjudged by some of his professional colleagues and ex-students in character, learning, pioneering endeavours and personal attributes to be worthy of this honour. However, the book is not out to shower routine praises on him. Rather, it contains scholarly and well researched papers by serious minded experienced and budding academics. All the papers focus on both recent trends in library and information science in Nigeria and on Professor Ifidon's major areas of teaching and research interests. The objectives of the book are to

- mark the retirement of an icon in library and information science from active service;
- serve as a source of inspiration to younger librarians and information managers;
- encourage and attract potential librarians and information managers into the profession;
- propagate and preserve Professor Ifidon's intellectual output and philosophy of library and information science for posterity.
- highlight Professor's Ifidon's life of service and pioneering;
- draw the attention of library and information science professionals to new trends in the professi0on;
- call the attention of library and information science professionals to the gargantuan change brought about by information and communication technology (ICT) and the need to adapt to that change to meet the needs of library clientele.

Such a book that is rich in ideas and experiences is worthy of a place on every library shelf, on the internet and in the personal collections of practising librarians, library educators, students of library and information science at all levels and even library users.

ISBN 978 - 978 - 33532 - 4 - 1

978 - 978 - 33532 - 4 - 1

ELIS ASSOCIATES