Towards The Design and Development of E-Books : An Experience

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Abstract

This paper advocates a strategy to select PG level thesis materials based on their intellectual value, and to define technical requirements for retrospective conversion to digital form based on their informational content. Defining the conversion requirements the document attributes may be the guarantee of building digital collections with sufficient richness to be useful for the long-term. There are factors that are compelling towards conversion of digitized form.

Keywords : E-Books, Digitization

0.   Introduction

E-publishing has developed rapidly over the past couple years. Electronic publishing of books is a major development that is quickly causing changes in the industry. In recent years, the traditional publishing houses have also climbed on board and are converting of new releases and backlists into the available electronic delivery formats, including both e-books and print-on-demand technology. However, Adobe PDF is also a widely used format for e-books and it competes with the OEB standard.

The University of California's California Digital Library formed an E-Book Task Force in August 2000 to investigate the e-book market and develop guidelines, principles and strategies for making e-books a viable part of the University's digital collections. It also highlights elements and strategies we determined to be important for future academic use of e-books. The commercial production, sale and distribution of e-books that has changed how libraries need to deal with e-books, and what prompted our investigation.

1.   Scope of this Paper

This papers presents the experience gained in the on going project of converting the Masters Degree level project's reports in final year Engineering Science. Further it explains the methodology for the creation of e-books such as converting MS Word document to PDF files; Creation of content page in HTML format; linking the PDF files to content page according to branch of Engineering Science and finally adding to the Adobe E-book reader for the ultimate and user purpose. At the initial stages of the projects a sample of M.Tech projects submitted to the Electrical and Electronics Engineering Department of SRM Deemed University has been considered. The experiences gained in this process are presented in this paper.

2.   Concept of E-Book

Electronic books offer creative possibilities for expanding access as well as changing learning behavior and academic research. Content can always be accessible, regardless of time or place, to be read on PCs or on portable book readers. Books need never go out of print, and new editions can be easily created. One can carry several titles at once on a portable reader and, over time, build a personal library. Features such as full text searching, changeable font size, mark-up, citation creation, and note taking will enhance usability. Print text can be integrated with multi-dimensional objects, sound, and film to create a whole new kind of monographic work.

3.   Information Materials Considered For The Project

The following are the ideal materials that can be created as e-books in libraries

- ✍ Student Projects / Theses / Dissertation
- ✍ Staff publications
- ✍ Seminar/Conference Proceeding published by the institution
- ✍ Institutional Publications (like Magazines, News Letters etc.,)
- ✍ Research Reports

4.   Methodology Adopted for Creation of E-Books

The methodologies adopted for creating digital format are:

- ✍ Soft copies of the student's projects are obtained from departments in MS word format.
- ✍ Project works received from the members are different formats
- ✍ This can be complied all the files in one file.
- ✍ After compiling the files, it can be saved MS word format.
- ✍ The different steps involved in the creation of e-book format are:
- ✍ MS word to PDF
- ✍ Creation of Content page in HTML format
- ✍ Linking all the PDF files to content page by branch wise
- ✍ Adding to the Adobe E-book reader for use of the members

4.1   STEP -1 From MS Word To PDF Conversion

After compiling the documents in one file it can be converted in to PDF files. The process of conversions of the word document to PDF, using Acrobat writer 4.0 is shown in Figure. 1

- ✍   Select File option,
- ✍   Click Print,
- ✍   Find a pull down menu
- ✍   >From the menu select an Acrobat Distiller press OK button.

The Acrobat Distiller started to convert the files from MS word to PDF files, after completion of the process PDF files open in the computer and it can be saved to the location.
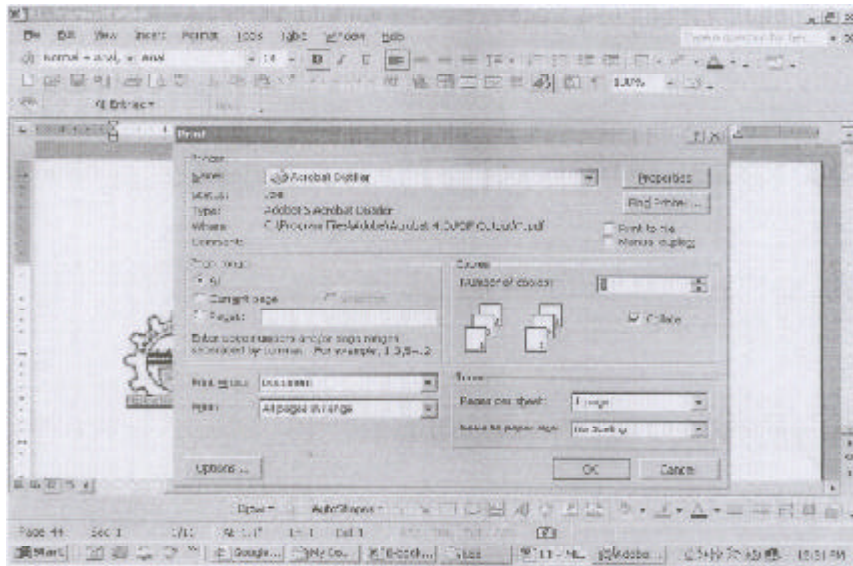
Figure -1

The converted document of MS Word to PDF will open in the same windowshown in the Figure -2 and this PDF document in the folder department wise.
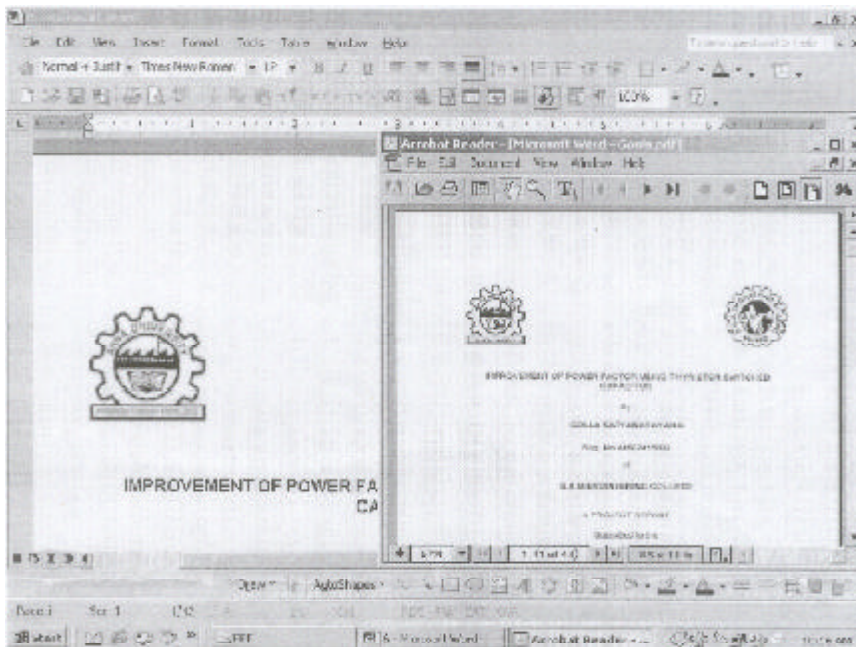

Figure - 2

4.2   STEP - 2 Creation Of Content Page Html Format

Content page is to be created in HTML file using Microsoft Front Page Editor. Content page is contains the Name of the Department, Year, Title of the Project and Name of the student who has done the project, under the guidance of the staff member. After completion of the above process the entire project is digitized to PDF Files and saved in one of the folder. This files is to
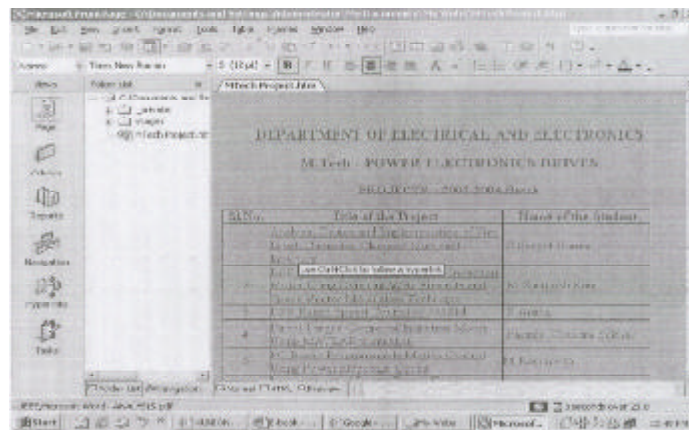

Figure - 3

4.3   STEP   - 3   Creating Links to PDF files to Content Page by Department Wise

After creating the Content Page of the project titles it can be opened in Internet Explore window as show in the Figure - 4 and this Internet Explorer file to be added in to Acrobat e-Book reader for use members as show in the Figure - 5
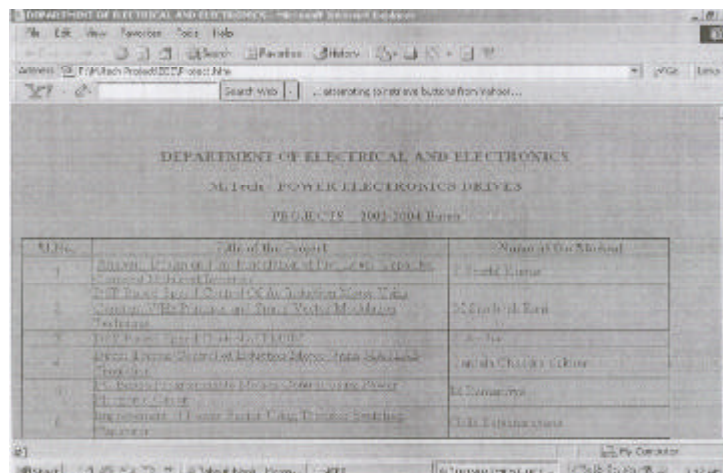

Figure -4

From the above screen left side of the window there is pull down menu can used to view the entire projects listed in the content page along with Title of the project and name of the person who have done that project work. Clicking the required projects, the selected project will open in the same window as a PDF file as shown in the figure - 6

The Acrobat e-Book reader is user friendly to use the multiple pages of e-books. The main directory file of the projects will be added in the e-books reader library and it will appear on the screen as shown in the Figure - 6. Clicking the M.Tech Project file, which appears on the content pages of the Department wise project of eBooks window, is shown in the figure - 5
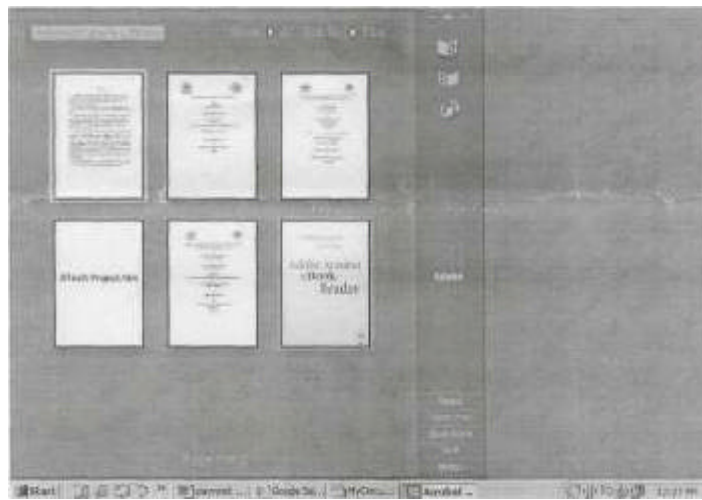

Figure - 5

Figure – 6

5.   Problems In E-Book Creation

While developing e-book the author confronted the following problems.

- ✍   Font Issues
- ✍   Lack of a Standard format
- ✍   Digital Rights Management (DRM)
- ✍   Reproduction of Graphics
- ✍   Reader Hardware

5.1   Font Issues

Fonts are both an advantage and a disadvantage for e-Books. The ability to resize fonts to fit the needs of the vision-impaired reader is an advantage. However, fonts on a computer screen at sizes equal to those used in printed materials are not easy on the eyes. After scanning the clear images of the letters are not captured and therefore many times, an editing work has to be made.

5.2   Lack of a Standard format

Imagine trying to read a book if there was no agreement on how to put the words on a printed page. Should they be printed as black on white or white on black.

Should they run left to right or right to left. May be they should be printed from top to bottom. Should a printed book be a bound together or just loose page. Should it open from the top, the left or the right? Without agreement on these simple standards, reading would be a definite adventure. The problems is many tiems worse in the e-book publishing industry. Lack of a single overriding standard means that authors, publishers, and even readers must choose what format they will support.

We have seen that different combinations of hardware and software are better or worse for different types of content. That guarantees that there will be multiple formats supported by different vendors trying to take advantage of specific markets. Soft book Publishing's reader has a single 8" x 11" colour screen, which is more expensive but better suited to reproduction of more demanding reading materials like textbooks. Each reader has his or her own format. Rocket e-book is a binary format based on HTML and Soft Books Publishing uses a format based on Adobe. Pdf. An attempt has been made to crate a single universal standard using pdf.

5.3   Digital Rights Management (DRM)

Protecting an author's copyright is one of the prime concerns when distributing books via electronic format. Although copying an entire book is now possible, the cost and inconvenience of doing it manually has kept this type of piracy to a minimum. But when coping is as easy as duplicating a file, piracy becomes a major problem. Some method of securely distributing e-books and preserving the copyrights and royalties of authors is essential if e-book are to flourish. Adobe, Xerox, and Microsoft are just a few of the companies currently working on this problem.

5.4   Reproduction of Graphics

Full colour graphics, complex tables, and figures are not easily reproducible on small screens. Some e-Book formats don't even support the inclusion of images.

In order to lower the price and increase battery life some e-Book hardware uses only a black and white screen. All of these factors make reproduction of graphic elements on many e-book a challenge.

5.5   Reader Hardware

The problem associated with e-Books is Reader hardware and software itself major problem for using e books. e-Book readers range in size from a small handheld PDA to a desktop computer and dedicated readers are relatively expensive when compared to the price of a book. Of course, many people a already own personal computers and laptops, but the change in habits required by these devices has already been mentioned as a problem.

The variety of incompatible hardware, software, and formats also leads to a problem. Since many e-book format are not interchangeable, a consumer must choose carefully when purchasing a platform or they might not be able to read the books that they want.

6.   Suggestions

Based on the experience, the authors propose the following suggestions:

- ✍   Needs uniformity in format of print version
- ✍   Soft copy is shall be in a standard format, with regard to layout; references citations; font etc.,
- ✍   Distinction shall be made between Bibliography and Reference in the thesis

7.   Conclusion

Electronics publishing, or e- publishing, uses new technology to deliver books and other content to readers. Because the technology allows publishers to get information to readers quickly and efficiently, it.is causing major changes to the publishing industry, as we know it. It will also impact they way we read, offering new hardware and software devices. We are only beginning to see the ramifications of e-publishing. E publishing is a very broad term that includes a variety of different publishing models, including electronics books (e book), print-on-demand (POD), email publishing. . Today the trend is providing digital signature without using a pen. Wireless publishing, electronics ink and web publishing are some of the ongoing features of the era. More types of e-publishing are sure to be developed in the near future.

E-Publishing will have a great role in making the libraries and information centers towards digital environment. E-journals and e-books would become very practical media of dissemination of information in future. It may be a funny thing to see a student having a dozen of books in his packet along with e-book reader. A kind of 'mobile reading' could be realized in the coming generation

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