

## Developing an E-Publication Reader Software and Application (ERSA) for Academic Libraries

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### Abstract

As newer technologies are evolving day by day, they are infiltrating in human life and daily activities. Apparently, few of them are becoming part and parcel of daily lives of humans. Mobile Technology can be considered at the peak among them. Libraries today are adopting these technologies to provide specialized services to their users. Still, there is a need of a software with an application to provide e-publication reading services to users more effectively. Hence, a plan for developing this software and application ERSA along with its features are being explained in this paper.

**KEYWORDS:** Electronic publications, E-Books, E-Journals, Reader software, Reader application, Library E-Book Reader, E-publications Reader

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### Introduction

Today, mobile technology with its various smart features and devices had covered and consuming the most part of humans' life. Through its different applications and functions, it has being the most important part of their life in present days. Smart phone use is increasing day by day, and the college going young generation are the most frequent users of this technology. To reach these users, thousands of mobile apps are being developed and made available on the smartphones. These mobile apps are made to perform specific functions or play games, music, videos, shopping etc. Apps have become the preferred method to consume all sorts of content from magazines and newspapers through to electronic product brochures & manuals. Apps provide a content rich experience users love and publishers can update anytime at low cost.

The advent of smartphones had brought some pros and cons with them. Due to smartphones, a person can get easily connected to other person regardless of place or location. Apart, it allows humans to make their daily routine works sitting at one place and on their fingertips, viz banking, bill payments, bookings etc. It also facilitates to remain in touch with near ones all the time. But, on the other side, it had make humans dependable and moreover habitual to the technology. Now, they don't have to keep everything in their memory and they just can remain dependent on technology and carry out most of the works without fail in their life.

In the same way, technology and mobile phone had done various effects on education and other fields also. Library and Information Science field is also one of them. Providing information services through smartphones had become easier and faster for libraries. On the same time, it has being a challenge as users are using another medias like internet and google to find information and need not find it necessary to approach library for specific piece of information. Considering this situation, the libraries also had to adopt the latest technologies and provide innovative services to these users on their fingertips through the media readers used the most i.e. their smartphones.

### **E-Publication and Academic Libraries**

A century and a half ago, Books were printed on papers and were very few in numbers. Hence, who needed the books use to purchase or copied it. With the increase in number of publication, it became difficult for a person to purchase every book published in his subject of interest. Then, these person started using library for the additional books they need. The books were purchased by the libraries and were made available to their readers for a certain period. Storage space was another reason for the limitation of personal library. Hence, common libraries were preferred and used the most for reading and getting information.

After the invent of digital technology, most of the printed books take the form of digital books and become E-Books and Journals become E-Journals. These E-publications were provided through various medias like CDs, DVDs and nowadays through internet. In the beginning, these E-publications were limited in number and were supplied through purchase and free sharing mode. Gradually the number of publications in digital media has increased and now it is not possible for every user to buy E-publications on their own. Hence, now it is again the responsibility on the libraries to purchase E-publications and provide them to their users for reading through fastest media.

### **Indian Copyright Act 1957**

E-publications are provided in pdf or word format by the publishers. Sharing the complete literature in any form may cause the infringement of copyright act. The Indian copyright act was published in 1957, which was updated a number of times later.

According to section 51 (Government of India, Copyright Office, 1957),copyright in a work shall be deemed to be infringed—

(a) when any person, without a license granted by the owner of the copyright or the Registrar of Copyrights under this Act or in contravention of the conditions of a license so granted or of any condition imposed by a competent authority under this Act (i) does anything, the exclusive right to do which is by this Act conferred upon the owner of the copyright, or (ii) permits for profit any place to be used for the communication of the work to the public where such communication constitutes an infringement of the copyright in the work, unless he was not aware and had no reasonable ground for believing that such communication to the public would be an infringement of copyright; or

(b) when any person(i) makes for sale or hire, or sells or lets for hire, or by way of trade displays or offers for sale or hire, or(ii) distributes either for the purpose of trade or to such an extent as to affect prejudicially the owner of the copyright, or (iii) by way of trade exhibits in public, or (iv) imports into India, any infringing copies of the work:

Though there is a provision in the same act as,

According to act 52 (Government of India, Copyright Office, 1957), certain acts not to be infringement of copyright. The following acts shall not constitute an infringement of copyright, namely,4[(a) a fair dealing with any work, not being a computer programme, for the purposes of(i) private or personal use, including research;(ii) criticism or review, whether of that work or of any other work; (iii) the reporting of current events and current affairs, including the reporting of a lecture delivered in public.

E-publications are provided in pdf or word format by the publishers. However, providing E-publications one time and keeping that copy of file permanently with the user may or may not create issue of copyright infringement but certainly create the following issues

1. The users will get the books at his storage permanently. It means he can keep it for long time and share it among other users too.
2. If he can further share it with others then other users will not have to approach the library for the same publication in future. This may affect the use of library.

### **Developing E-publication Readers software and application(ERSA) for library**

To cater with the copyright issues and other challenges created by it, there shall be a E-publication reader software and smart phone application interlinked with each other. This software and application shall be developed on the platform of Library Management Software with some functions that can be used specially for circulation of e-publications on smart phone to the users.

However, there are many E-book readers available in the market for reading E-books in computer and smartphones, but they are meant for personal use on gadgets and didn't solve the purpose of the circulation of books through the library. The EPRSA shall have the following features:

#### **1. Source Codes**

##### **a. Software**

A software shall be develop for the circulation desk computer in the library based on the Library Management Software but specially meant for e-publication circulations. This software shall carry out functions like acquisition of users profiles, e-publication, Conversion, circulation, reminders and deletion confirmation services. This software shall be directly connected with the mobile application meant for reading the books.

##### **b. Application**

An application for android, windows and iOS based mobile phone shall be developed to provide e-publication reading services to the users. This application shall be made available through their respective stores as well as on the website of library for download freely in the user's system. This application shall have the facilities of profile creation, E-book reader, book request, print book request, opac etc.

#### **2. Basic services**

##### **a. Software**

A software shall provide basic services like profile maintenance, profile approval, mobile number verification, subscription maintenance, payments, renewals etc. The profiles created from the application shall be verified in the basic services modules of ERSA. There shall be a provision of receiving the subscription payments(if any) in offline and online mode from the users. The subscription details shall be connected and saved with the concerned user's profile, the starting date and end date of membership shall be maintained by this module. Auto creation of individual username and password for every member shall be created and send to the users through this module. Renewal of membership and remainders regarding renewals shall also be take care of in this part of the software.

**b. Application**

The application shall provide basic services like the facility of profile creation, subscription request, offline and online payments of subscription, options of auto-login or using username and password, renewal request, unsubscribe etc.

**3. Customized LMS**

**a. Software**

The software shall have master files for including the library rules regarding e-publication in the software. It includes user categories, number of e-publications allowed at a time, number of days for circulation, library name, message formats etc. There may be different user categories as teacher, students, staff etc. The number of e-publications allowed can be entered according to the categories of users. The number of days for circulation may be decided as per the rules decided for the library.

**b. Application**

The application shall have master files for profile data, subjects of interest, selected titles list etc. From the selected subject of interest, the software may suggest books for reading to the users. The selected titles list is the waitlist of books, which can be created by searching and selecting books at opac, the user want to read in near future after the current book.

**4. Conversion Tools**

**a. Software**

Conversion tools shall be present in ERSA software to take care of file conversion. After purchasing E-publications in pdf/word or any other format, they should be uploaded to this software in acquisition module and then the software shall convert these files into a coded file which can only be read by the a specific software present in the mobile application. The conversion of these files will avoid the sharing of books and thereby giving security to the copyright issue. If any other user need the book, he will have to approach the library for the same.

**b. Application**

Conversion tools in the ERSA application would take care of the file formats and that the readers can read the e-publications easily in the mobile application. Conversion tools will also take care that the e-publication files are not copied, shared, screenshot, reconverted etc. by the smart phone user.

**5. Book Circulation**

**a. Software**

Circulation module shall take request from users and then issue the e-publication to users for reading at their account. When the user searches an e-publication in opac and select it and send request, it will be displayed in this section and the book will be issued to him through this module. As soon as the publication issued, a soft copy of the publication in coded language is transferred into user's account in his mobile. There the file was decoded for reading and the user can read the publication for the stipulated period and then request for renewal or another one.

**b. Application**

From this module in application, the user can send request for e-publications. After receiving, can read the books in the e-publication book reader available in this section.

From the same section, if the user needs, he can ask for printed copy of publication if available in the library.

## **6. Auto Reminders**

Auto reminders settings in e-publication readers software are regarding renewals of issue or membership subscription. Reminders shall be sent through this module automatically. The date and time of sending the renewals, how many days in prior can be provided in this section.

## **7. Auto Deletion**

### **a. Software**

After the e-publication is issued to the user at his account, he will get a stipulated period to read the book. The software will send reminder about the end of issue period to the user account prior to the end-date. If the user didn't want to renew or he may have completed reading the e-publication then the file of that e-publication will automatically get deleted on the last date of issuance period.

### **b. Application**

The e-publication files issued to the users for reading and are not renewed in time will get automatically deleted on the last date of issuance. Here, if the user completes reading the e-publication earlier, he can send a request to delete the e-publication and issue another e-publication in his name.

## **8. Online Public Access Catalogue**

### **a. Software**

While doing acquisition process of the e-publication, their bibliographic entries shall be done with abstract of e-publication, so that they can be searched easily in opac created for the purpose. The users can search and select the e-publication files which are imported to the ERSA software and request them for reading. Searches on author, title, subject, publishers can be made available through the opac.

### **b. Application**

If the user wants to issue a book from their account, they have to visit the opac first and search the e-publication first and then select it and send a request for issuing it. Hence, opac is an important and basic module of ERSA.

## **Conclusion**

E-publications management and dissemination is still a challenge for academic libraries. With the changing needs of library users and advent of innovative technology, ERSA will prove to be of great help to the libraries. At the same time, it will also protect them from copyright issues. ERSA can become a key tool to provide e-publication services to the users in academic libraries. On the users front, they can get quick access to needed and authentic information from the libraries on their fingertips. ERSA will definitely be one of the important apps like whatsapp and facebook in the smartphones of library users as well as laptops and desktops. It would be one of the important and advanced tools for e-publication dissemination in the academic libraries.

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