

# SMART LIBRARY MOBILE FOLLOWS WHERE YOU GO: STUDY ON THE BEST THREE LIBRARY MOBILE APPLICATIONS

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## **Abstract**

*Mobile applications are a better way to get access to the digital content available on the cloud storages as well as in the libraries. More than 24 library mobile applications are available on application stores such as Apple App Store, Google Play Store and Amazon App Store. In this paper, we have tried to analyze three most popular library applications' functions, services and features which are helpful to the smartphone and eBook readers. In this study, the authors have explored as to what kind of services are provided by the library mobile applications. The authors also tried to differentiate the services offered by the two applications Overdrive and 3M Cloud library.*

**Keywords:** *Library mobile applications, Mobile Technology, Android, iOS*

## **I. Introduction:**

Mobile applications are now becoming widely used for academic class registration all over the world especially in the countries like Korea, Hong Kong, Japan, UK and USA. The people are taking advantage of the mobile applications by being connected to the Internet. These mobile applications are mainly used by the users on the eBook readers like Amazon Kindle, Barnes and Noble Nook reader, Kobo eBook reader and Sony eBook reader.

The present generation is using the mobile applications a lot, starting from social networking applications, word processors and other applications. Library mobile application is mostly used by the people who read eBooks. It also helps to check the status of their library account. Any institution provides a Library catalogue and other services through which the users will get to know the book titles, authors and publishers. The institution provides

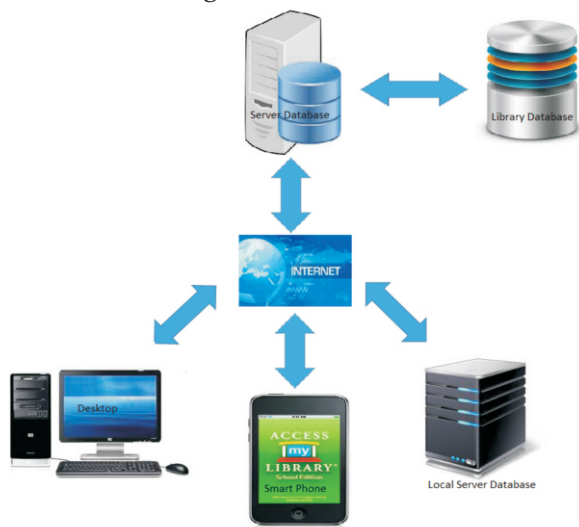
software to the Librarian in order to search any book by its title, author or publication. The International Telecommunication Union (ITU) estimated that the latest ICT (Information and Communication Technologies) statistics are that there will be almost 3 billion Internet users of which two-thirds of them are from the developing countries and the number of Internet subscriptions will reach 2.3 billion globally by the end of 2014 and 55% of these subscriptions are expected to be from the developing world.

## **II. Library mobile applications and its use:**

As technology According to the recent survey on mobile users of library services, most of the users use the library mobile applications for the following purposes:

1. Checking out availability of the book.
2. To read electronic resources from the library
3. Reserving and renewing books.

4. To find out about the upcoming events.
5. To get contact information of the library and working hours.



**Figure : Work flow of mobile library application**

The above figure shows how the mobile library application works. Here, the cloud server (Server database) acts as a main component from which the personal computer, mobile and the local server are accessing the data via the Internet connection. The Central Library, which is also the Central data source is connected to the Cloud server wherein the data flow takes place between two components.

Here, we have chosen three best applications based on their relevancy, accuracy, and content. The most popular library applications are studied in detail:

### **1. My Library (Hong Kong Public Library Official Application):**

My Library application is available on Android and iOS platforms and can be downloaded free of cost. The main advantage of “My Library” application is that it provides a safe and convenient channel for users to access library services in

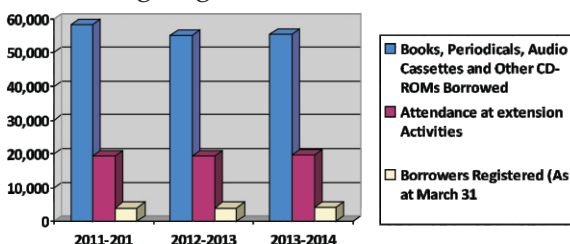
the mobile world at any time and any place. It is the most secure mobile application as it is the official mobile application developed for Hong Kong Public Libraries (HKPL). A number of popular functions are available on the mobile application which includes:

- a) Access to personal library accounts.
- b) Searching, reserving and renewing of library materials.
- c) Locating nearest libraries using GPS as well as address and contact information of all libraries.
- d) Personalized alert services including pick-up of reserved items and due dates of borrowed books.
- e) Saving and retrieving library materials in My Lists, which is an option in this application.



The Leisure and Cultural Services Department launched “My Library” on 8<sup>th</sup> September, 2014. It has become the official library mobile app of Hong Kong Public Libraries for both iOS and Android platforms with enhanced security and personal privacy protection. The difference between this application and the online library catalogue is that this application provides some core features of the online library catalogue such as searching, reserving and renewing library materials, in a most convenient manner available on mobile devices. It will also offer other new features like personalized notification services and finding nearby libraries using

GPS. However, we can still search library catalogue or find library information without signing in.



**Figure 2: Usage of Public Libraries in Hong Kong during the period 2011 to 2014**

The above figure shows the usage details of public libraries in Hong Kong during the period 2011 to 2014. During the year 2011-2012, maximum facility of library books, periodicals, CD's and other materials were utilized by the users. The highest attendance at extension activities is 19,710 in the year 2013-2014.

### The main features of My Library are:

#### i. Auto Login:

To use this application, one should sign in to the library account for renewal reservation or managing My Lists. There is a feature called as "Auto login" in this application. If we enable "Auto login", our account information, i.e., library card number and password would be saved in the application for future sign in automatically. To use the other features in the application, we need to enable the "Auto login" function in order to receive other personalized notifications from library, including due date, overdue, pick-up and renewal, block alert. Users are however reminded to keep safe custody of their mobile phone/devices; if they turn on this function, otherwise, there may be potential leak of personal information.

#### ii. Personalized alert services:

This is a special feature in this application. It

supports the reception of personalized alert through the Push Notification Services provided by Apple Inc. or Google Inc. The alert messages will be delivered to the phone/device even when the application is closed. We can turn on/off different types of alert through the notification setting in the menu of the application.

#### iii. Renewal Block Alert:

There is another feature called as "Renewal Block Alert". If the borrowed item is reserved by other readers, that may lead to denial of renewal, an alert will be sent three days prior to the item due date on a daily basis. Since the status of reservation will change frequently from time to time, this alert is for reference only. Even if no alert is received, it does not guarantee the success of renewal when the request is made.

#### iv. Scan Search:

Scan Search feature is very much helpful in this application. The application can use the camera function of the mobile device to scan the International Standard Book Number of the book, in order to check whether the book is available in library stock. To scan the ISBN barcode, the user should closely place and target the camera lens on it and it will scan automatically. This option requires the device to run on the iOS that is iPhone/iPad and should have the software version iOS6 or higher while the Android devices should have the software version Android 2.2 or above.

#### v. Library Info File and Library Map file:

The "Library Info File" and "Library Map file" should be downloaded separately as the information or the addresses of public libraries may be updated from time to time and we need to download the latest information when we see the update icon.

We need to consider using WiFi network to download the update in view of the large file size.

There is an option called share function available on the application. This function allows sharing the link of individual library item onto other social sharing platforms or message tools including e-mail, Facebook, WhatsApp, Twitter, Weibo, etc; but no other personal data will be released at the same time.

All the personal information collected in the application is protected and safe. Only minimal personal data would be collected when using the application. The personal data required in the application include the library card number, Hong Kong Identity Card number and the library account password. Whether the personal data is to be saved in the application for auto login is optional. If the user has signed in with his Hong Kong Identity Card number, it will be converted and saved as a Library card number. Users are however reminded to keep safe custody of their mobile phones/devices if they turn on auto login function, otherwise, there may be potential leakage of personal information.

## 2. Overdrive:



Overdrive is a USA based mobile application which is available free of cost on both Android and iOS. Overdrive, Inc. is an American digital distributor of eBooks, audio books, music and video titles. The companies provide secure management, digital rights management and download fulfillment services for publishers, libraries, schools and retailers. Overdrive's catalog includes more than 2 million digital titles from more than 5000 publishers. More than

30,000 libraries worldwide offer titles from Overdrive and even schools are linked to it. The main features of the Overdrive application are that it borrows eBooks, audio books and stream videos from the library using Overdrive on the Android or iOS device.

The main advantages of this application are:

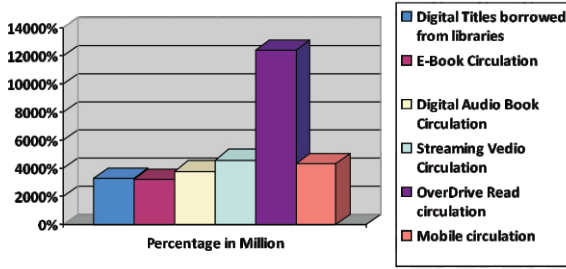
1. It is available 24/7, now the library comes to us.
2. There will not be any overdue charges. Titles are automatically returned.
3. It places holds, create wish lists and return titles easily.
4. It synchronizes libraries, bookmarks and recent positions across mobile devices.

It chooses a valid account with a participating library, school or other institution is required.

**Table 1. Usage of Over Drive during the year 2012**

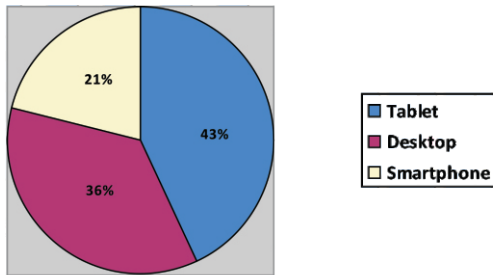
<b>Browsing</b>	70 Million
<b>Partners</b>	22,000
<b>Collection</b>	More than 1 million
<b>Mobile Usage</b>	16 million downloads

The above table shows that there are 2.7 billion books and title catalog pages browsed that accounts to 65% and it has generated 192 million registered visitor sessions in the year 2011. 70 million digital titles have been checked out in 2012. There are 22,000 public and K-12 libraries which use OverDrive services and the collection of over one million items. The Mobile applications' usage statistics shows that there are 16 million downloads of the Overdrive Media Console application in 2012



**Figure 3: Usage Statistics including most popular eBooks and Audio books.**

The above figure shows that there were 137 million eBooks, in the sense +33% digital titles borrowed from the libraries and schools. The eBook circulation has reached 105 million (+32%), Digital audio book circulation 32(+38%), Streaming video circulation (+46%), Overdrive read circulation (+124%) and mobile circulation check out (43%).



**Figure 4: Percentage of number of Overdrive visits on Tablet, Desktop and Smartphone during the year 2014.**

The above pie-chart shows the usage percentage of the Overdrive application through the technologies such as Tablet (43%), Desktop(36%) and Smartphone(21%) in the year 2014.

**3. 3m Cloud Library:**

The 3M Cloud Library is one of the best mobile application, which is available free of cost on both Android and iOS. This application is an innovative way to browse, borrow and read



popular fiction and non-fiction eBooks from the local public library. To use this application and access eBooks, one should have their own valid library identity card and PIN. If we do not have access to a library card, we need to inquire at a local library as to how to get one. The library credentials will give access to the thousands of titles available as a member of the local library. The 3M Cloud Library application is a part of a full suite of services purposed to enjoy books from the public library. If the local library does not have the 3M Cloud Library, we need to get the subscription for the community.

3M Cloud Library recently redesigned the application which includes all the new navigation and personalizations, making it easier than ever to find eBooks from the local public library. This application includes a fully functional reader allowing the user to read their eBook directly in the app, as well as bookmark and save the position of their book across devices. It also includes an Audiobook player, allowing the user to download, play and listen to their books offline as well.

3M Cloud Library lends not only eBooks, but also e-reader hardware. This application allows patrons to borrow eBooks via digital kiosks in the library or online. By using this application, the libraries can purchase 3M-branded e-readers and lend the hardware to patrons who do not have e-readers of their own.

3M has more than 40 publishers backing Cloud Library and more than 1,00,000 titles ready to go. These eBooks are compatible with Nook e-readers as well as iOS, Android, Windows and OS X devices running the Cloud Library application. To help expedite book lending, 3M has set up

on-site kiosks to help patrons search and check out the available books. 3M's Automated Material Handler checks in and sorts library items that have been returned. The company's RFID systems help the libraries to track the books and its self check-out system helps the busy patrons get in and out of local libraries quickly.

**The 3M Cloud Library provides the following features:**

- i) Productivity and Security
- ii) EBook lending
- iii) Library contractors

**i) Productivity and Security:**

3M Cloud libraries meet the needs and challenges of the present libraries. The productivity and security solutions let the staff spend less time on routine tasks and more time helping the patrons discover the following:

- Automated check-in systems which reduces operating costs by streamlining the check-in and sorting of materials.
- Self-service check-out systems which offer the best self-service experience and achieve higher usage rates with intuitive solutions.
- Security and detection systems which protect the collection with gates and labels for superior security.
- Library operations management solutions which simplifies collection management, inventory and tagging with intuitive, time-saving solutions.

**ii) EBook lending:**

3M has simplified eBook lending for libraries. The 3M Cloud Library helps build eBook awareness, drive circulations and connect to the evolving community.

The main features of the eBook lending service are:

- The 3M Cloud Library is a user friendly

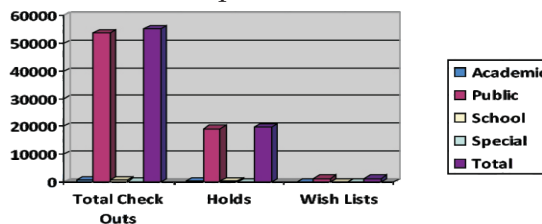
application and it makes easy for the patrons to access eBooks, so they can read whenever they want.

- The 3M Cloud Library brings a wide variety of major publishers to provide the best and the most popular content to the library.
- Increase discovery by using the optional accessories which enhance the 3M Cloud Library experience and drive traffic to the collection.
- Get personalized service by the team staff of 3M Cloud Library.

**iii) Library Contractors:**

3M Library Solutions has cutting edge library solutions including RFID readers, library automation solutions(AMH), self check and security solutions, as well as 3M Cloud Library which is now the fastest growing eBook lending service. 3M Cloud Library is an innovative way to browse, borrow and read popular fiction and non-fiction eBooks from the local public library. It has a set of important features which are very useful. They are:

- Browse and check out popular titles from the library.
- Easily transfer eBooks to the e-reader. By using the 3M Cloud Library PC Software, the eBooks can be transferred to the Nook Simple Touch, Kobo or Sony eReader.
- Take notes and create bookmarks.
- Read on multiple devices.



**Figure 5 : 3M Cloud Library usage by library type, as per 2013 database.**

The above figure describes the total usage detail of 3M Cloud Library during the year 2013. In this usage, there are 9 Academic libraries, 68 Public libraries, 10 School libraries and only 2 Special libraries which have been accessed. Maximum service is utilized by the public library users in which their total checkouts are 53,583, holds are 19,136 and wish lists are 1,207 out of 55,126, 19,702 and 1,218 respectively.

### III. Overdrive Versus 3M Cloud Libraries:

Over Drive and the 3M Cloud Library offer similar features but deliver them in very different ways. Some of the differences between the two are:

1. Only Overdrive offers Kindle-compatible titles.
2. Overdrive offers digital audio and digital video downloads in addition to eBooks, while the 3M Cloud Library only offers eBooks.
3. The 3M Cloud Library delivers its content via the "cloud" which means that there should be virtual access to a book downloaded from the 3M Cloud Library from any device. Any bookmarks or notes made on your iPad for example, would also show up on your PC if you stopped reading on one device and picked up on the other.

### IV. Conclusion:

Library mobile application is a much needed technology for all kinds of libraries to provide their services to the users. So, the three very popular library mobile applications have been taken into account in this paper to bring out the similarities and

differences between all the three applications. The practical implication is that the academic, special and public librarians of Indian libraries should reinforce the efficiency of library mobile applications to influence users' willingness to use such applications.

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