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Dr. Shiv Singh holds a Ph.D. in Library and Information Science and has more than 13+ years' experience as Administrative and Teaching. Presently he is serving as Deputy Librarian at GLA University, U.P. Prior to GLA, he served Bennett University (The Times Group), Greater Noida, Lovely Professional University, Punjab, Jaypee University, Anoopshar, Banasthali Vidyapeeth, Rajasthan and also associated with INGOU, New Delhi. He delivered more than 10 lectures, organized workshops/ seminars, presented several papers at various conferences, attended many international and national conferences, Published 1 book and 50+ research Articles in reputed Journals/conference proceeding.

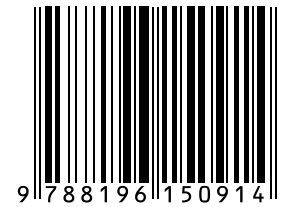


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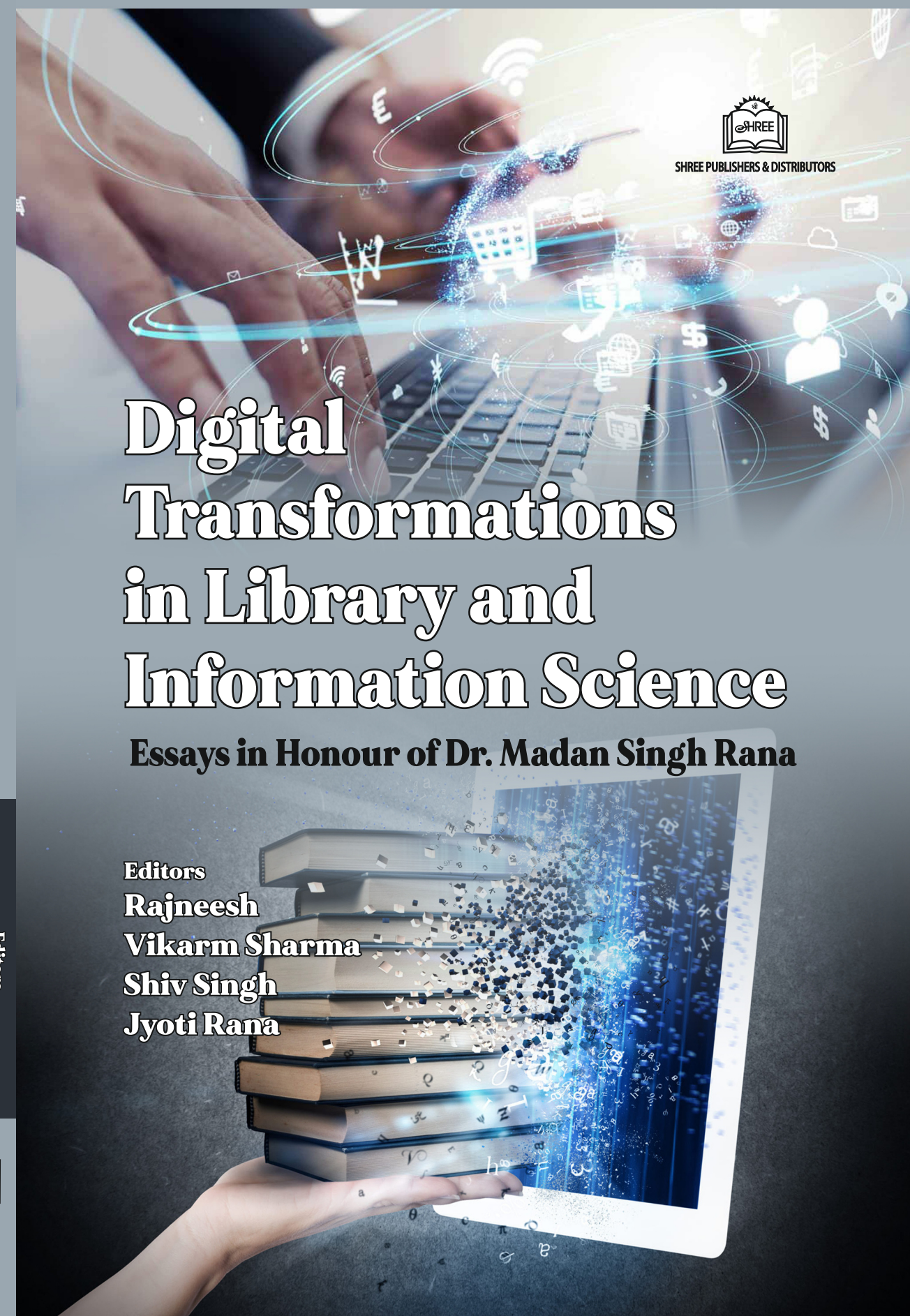


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Digital Transformations in Library and Information Science
Essays in Honour of Dr. Madan Singh Rana



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Mobile App: Futuristic Approach for Academic Libraries

Nitin S Joshi* Shivaraj Madgu**

Abstract: *This study will address the instruments used in Indian academic libraries to put up mobile-based services, such as mobile technologies, QR codes, mobile apps, mobile library websites, mobile databases, and soon. Mobile-friendly websites, mobile OPACs, Web-scale discovery, e-resources platform, ask a Librarian, Audio-Video Tutorials, Library user manuals, Library orientations, Library floor plans, Library blogs, e-Mail/SMS alerts, and Library exhibits, among other things The author explains how libraries have changed to enable new means of accessing their holdings 24 hours a day, seven days a week through open data and library services on mobile devices. At the moment, practically all Indian academic libraries are working to make resources accessible and discoverable by users at the worldwide level, the focus is on top digital transformation trends shortly.*

Keywords: *Digital Library, Mobile Technology & Library Services.*

Introduction

With the rapid rise of Information and Communication Technology and Web 2.0 technologies since the turn of the century, libraries have been experimenting with novel ways to deliver library services via digital transmission systems. The use of ICT and mobile technologies to transmit

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library resources and services digitally is transforming the landscape of libraries, and it has switched paradigms from print to digital services. Information and mobile technologies have created new digital platforms for information management and distribution, as well as a digital transformation of library services across worldwide networks. Many academic libraries built and posted on their websites a QR code-based digital library floorplans and virtual guides to the user's convenience for 24x7x365 accessibility and discovery of their interests to promote the digital transformation.

Mobile App

A piece of software that runs on a mobile device is referred to as an "app". In today's mobile phone sector, companies provide phones with more advanced computer and communication capabilities than a conventional basic feature phone. One is a smartphone, which is a phone with a lot of apps, and the other is a tablet, which is a small mobile computer with a touch screen. Apple iOS and Google Android are two popular smartphone/tablet platforms. The phrase "mobile app" is defined in a variety of ways by companies that create mobile devices and computer scientists, some of which are listed below: -

A smartphone or tablet app is a little program that runs on the device. Different app development tools are required for different operating systems (platforms). Apple apps, for example, are typically written in Objective-C and distributed via the X-code environment to iPhone/ iPod Touch/ iPad users, whereas Android apps are frequently written in Java and deployed to Android devices. Any application or software that runs on a mobile device is referred to as a "mobile app" in general. There seems to be an app for everything these days. Apps provide access to library e-resource lists, OPAC, library information or bulletins, news email, social networking sites, newspapers, and podcasts. The total amount of apps installed on a device.

Types of Mobile Application

Before creating a library mobile app plan, strategy, or best practice, information professionals need to understand the main types of mobile apps and their various characteristics and features. Knowing the strengths and weaknesses of your app will help library professionals decide on an approach that meets the needs of both content and users. Three categories of mobile apps are described below:

3.1 Native App

Native applications are applications created and developed specifically for a particular mobile operating system. The top three mobile operating systems are Google's Android, Apple's iOS, and Windows Phone. To create a true native application, you need to use the Java programming language for Android, the Objective C programming language for iOS, and the .NET Framework for Windows Phone.

3.2 Hybrid

Hybrid web apps are applications that are neither true mobile web apps nor native apps. Hybrid apps are a way to deliver app-style content from an existing website. Hybrid applications are a combination of native and web technologies used to provide a combination of web content and native capabilities. This is basically an application written using the HTML5, JavaScript API, and CSS web technologies above, but runs in a native third-party application container. The main feature of hybrid apps is that they are developed using standard web languages, but they usually have access to the API and hardware of native devices.

3.3 Web App

A web app is a mobile version of a website. Really mobile web applications are another term. The web app is not a real application. They are actually websites that look and feel like native applications in many ways, but they are not implemented that way. These are run by the browser and are usually written in HTML5. Initially, users access it like any other website. You have the option to go to a special URL, bookmark the page and "install" on the home screen.

4. Advantages of Mobile App

4.1 User-friendly

Familiarity with their very own gadgets and generation enables the customers in having access to facts quick and does now no longer require orientation and training. In cell telephones like SMS, on the spontaneous messaging, internet browsing, email results easily to communicate. Most of those capabilities are pre-mounted on cell gadgets or alternative for facts plan packages.

4.2 Personalized Service

Personalized carrier allows customers to have interaction with library group of workers to searching for unique statistics or reference far from library.

4.3 Ability to Access Information

Information get right of entry to from everywhere at any time could be of incredible assist for customers who cannot go to library in man or woman and offers a steady hyperlink to required facts resources.

4.4 Time Saving

Users want now no longer file facts approximately assets whilst surfing and looking library assets or wait at library transaction counter to renew/ reserve books and therefore the time of the person is saved.

4.5 User Participation

OPAC by allowing users to include user-created content, such as user-uploaded notes and images.

4.6 Location Awareness

Mobile communications allow libraries to provide location-based services / content via the Global Positioning System GPS Libraries can use maps and navigation tools to guide users to specific documents or service locations.

4.7 Limitless Access

All online resources accessible on your desktop can also be accessed on your mobile device 4.8 Access to Print-disabled Users Mobile communications help provide verbal services to the visually and physically handicapped.

5. Digital Transformation

To virtual transmission of library offerings, the important thing function of libraries and their working specialists has been definitely modified with net applications. The virtual transmission of library offerings turned into an initiative as "library without walls" Weise, (2004). In the binging of twenty first century, nearly library web sites that historically blanketed in particular static, directional, descriptive records to inner and outside offerings supplied via way of means of respective library however nowadays advanced right into an extra dynamic generation with Web 2. zero gear and cell technology to easily available records assets for customers at anytime, anywhere. The net 2. zero gear inclusive of blogging, RSS feeds and social networking web sites inclusive of Facebook, Twitter, Instagram, and audio-video podcasting etc., The converting function of

library specialists to virtual transformation may be particularly located as following:

- 5.a Purchasing/subscription of e-assets
- 5.b Set up the brand new virtual offerings at the region of conventional print offerings.
- 5.c More emphasis on collaborative and assets sharing practice.
- 5.d Advocacy of virtual series and offerings
- 5.e Setup the 24x7 sample library offerings in networking environment
- 5.f Design and improvement of virtual records repositories
- 5.g Implementing the Open Educational Resources platforms
- 5.h Development of cell apps, MOPAC and cell library web sites etc.
- 5.i Deterring plagiarism via anti-plagiarism gear
- 5.j Research advocacy, etc.

Mobile App Services in Libraries

6.1 SMS notification services

The library can provide users with the latest news, events, and alerts via SMS and MMS. Wherever they may go. You can instantly notify the user with notifications such as alerts About bringing a new book to the user's notification for a suggestion to announce the arrival of the indented book Information about the availability of documents from users, reserved documents for collection, and evaluation About expired books, unpaid fines, reminders to return library media, book updates, libraries Subscribe to e-journals, change dates, get information about important events, rent out Request, etc. Such alarm notifications can be automatically generated using integrated library management System software. SMS messages can be sent to many groups of users at the same time for free Applications and intermediate website/client.

6.2 Mobile Databases:

Many well-known publishers and libraries are currently developing mobile-accessible databases. Mobile device users. Registered users can access the mobile database Digital Transformation of Library Services in the Mobile World: Future Trends Login IDs and passwords are allowed in the mobile world. Some publishers/libraries offer mobile phones Database access via registered IP on and off-campus. Or Registered

users of the library can access the database from anywhere using their mobile device. anytime. Currently, many libraries have Science Direct, Scopus, EBSCOhost, ISI Web Knowledge, etc. In consortium mode from a well-known publisher Elsevier's, Emeralds, Taylor & Francis, Thomson Reuters, and more. EBSCO is very convenient. A mobile database for discovering and retrieving knowledge about mobile devices anytime, anywhere Via the internet.

6.3 Mobile Devices:

From the modern libraries to the digital transmission of library resources and services mobile devices play a key role in 24x7 access to information anywhere, anytime. Mobile devices include iPads, Smartphones, Laptops, Notebooks, Netbooks, PDAs, eBook readers, Cell phones, Audio players such as MP3 players, etc. With the technological change for libraries redesign the library services using mobile technologies to faster delivery of information on mobile devices for instant utilized by both students and faculty. In the mobile world, instant accessibility of information services helps to solve the information problems with access to Publishing Technology and Future of Academia easy to use mobile apps, mobile databases search, social media like Facebook Twitter and Instagram, etc. While many reputed libraries are implementing virtual reference services for users to be accessible on their mobile devices at the global level. Mobile devices are dramatically changing user information delivery and accessibility trends, especially when using digital information resources.

6.4 Distance Learning and E-learning

Students are extremely versatile in the use of mobile phones and various mobile applications. Academic libraries can be used to promote the implementation of library services Mobile devices that support distance learning, formal education, and research activities in the e-learning Environment by making information resources ubiquitous. Library service Also, university/university, scientific community, or Other regular customers they serve.

6.5 Quick Response (QR) Codes:

QR Code is a trademark of Quick Response Code and was first developed by DENSO. Wave Corporation was manufactured in Japan in 1994. A 2D barcode that can contain hundreds. Many times more data/information than a simple barcode. It was designed according to the international

design 2000 standard (ISO/IEC 18004). any libraries today offer QR codes for digital services. Get instant access to information services over the network anytime, anywhere. Or The usage of the QR code in the library is shown below.

7. Future Trends of Libraries to Digital Transformation:

To help and made an effortlessly virtual transformation of library offerings with ICT and cell technologies, libraries destiny tendencies are following

- 7.1 Implementing the Internet of Thing (IoT)
- 7.2 Libraries linked with Clouds offerings (Public, Private, Hybrid)
- 7.3 Transform far off e-aids get right of entry to without extra cost
- 7.4 Virtual reference service, Good to Great
- 7.5 Consumption-Based IT Services for the Win (FTW).
- 7.6 Setup of net scale discovery and accessibility
- 7.7 Developing mobile apps for libraries through library professionals
- 7.8 Promote open statistics way of life with collaborative approach
- 7.9 Mobile net 2.0 and 3.0 packages for social networking for the library community

Conclusion

Today, library professionals are facing challenges to fulfil the needs of users with evolving changing to create a library of the future. To digital transformation of library services, a QR code technology help to provide the online accessible services by users on their mobile devices through scanning QR code of products and services. In the digital era several platforms as well as tools (Institutional repositories, Mobile apps, Virtual reference disk, Content alert etc.) are available to enhance the use of services in libraries. In the mobile world online library resources and services can be made available 24x7 with a web authentication tool as well as a proxy server to providing open access of resources free online. To promote the digital transmission of library services in mobile world, many libraries, publishers and library vendors are engaging to developing mobile apps, resources and services that can be utilized over mobile networks on mobile devices.

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