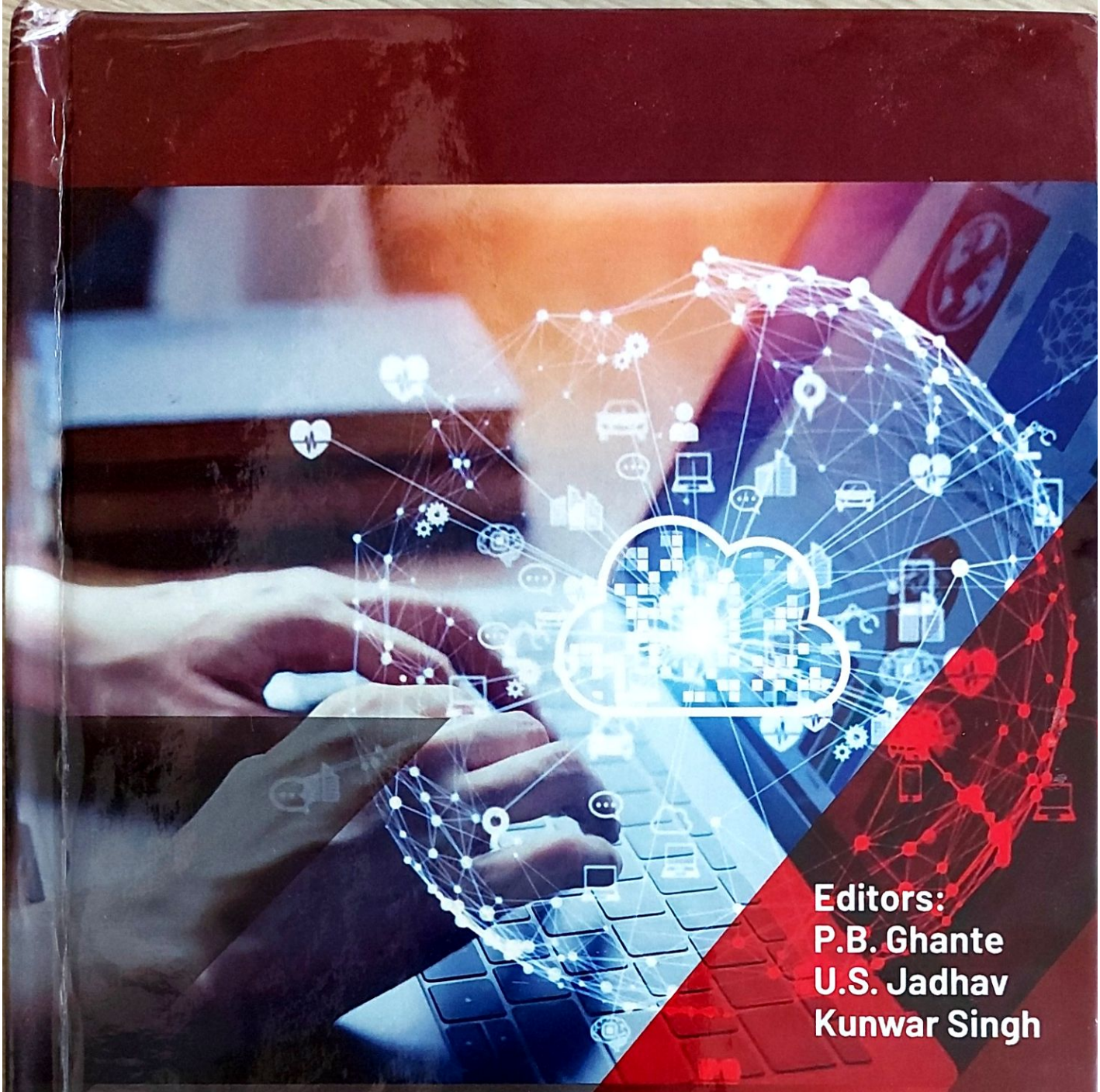

Editors:
P.B. Ghante
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INTEGRATING ICT IN LIBRARY MANAGEMENT

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Ess Ess Publications
New Delhi

Integrating ICT in Library Management

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E-Resources and Online Services : A Best Practices of Deur College Library

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ABSTRACT

The article discusses one of the innovative and best practices of the Library and Knowledge Resource Centre of Prof. Sambhajirao Kadam College, Deur (Dist. Satara, MS) that offers 24/7/365 days' remote access to plenty of library e-resources and online services for its users at absolutely no cost. The article covers all aspects of this practice, such as significance, model, objectives, features, resources, tools, and output, etc. The blended model of best practice, comprising Library Portal, Android App and QR technology, has been developed for granting remote access to the library's e-Resources and online services. The practice has been found to be extremely beneficial not only to library users but also to the larger academic community. The article also reviews the selected studies related to best practices performed in other academic libraries in India.

Keywords : Library Best Practice, Remote Access, e-Resources, Online Services

1. INTRODUCTION

The higher education institutes in India are now in the stage of transformation. Radical changes are taking place in higher education practices, learning resources, and assessment methods. Higher education bodies like UGC,

current challenges faced by the library and how to overcome them by performing best practices.

Sathe (2015) threw the light on various best practices to be followed in college libraries. The author highlighted general best practices, library extension services, NAAC best practices, and IT-based best practices like Web pages, blogs, and Wikis. Virtual library tours, etc.

Sahu (2013) explored the different best practices of social media in academic libraries. The study examined the impact of social media tools on engineering college libraries in Odisha.

Waghmode (2013) informed about best practices like library extension services, computer and internet facilities, Book Bank facilities, and information about competitive exams etc.

Vyas (2009) reviewed the best practices in academic libraries in India. The paper highlighted the best practices experienced by Indian library scientists like Dr. S.R. Ranganathan. He also explained NAAC's concern for the quality of library practices and the set of best practices in academic libraries.

Jotwani (2008) discussed the strategies for the application of best practices in the Central Library of IIT Bombay. The practices were related to resource development and management, user services, ICT-enabled services, user empowerment, information literacy, library marketing and other activities, etc.

4. ABOUT THE PRACTICE: *24/7/365 DAYS OF REMOTE ACCESS TO LIBRARY E-RESOURCES AND ONLINE SERVICES*

The Library and Knowledge Resource Centre of Prof. Sambhajirao Kadam College, Deur has internally evolved a system by leveraging smart technology that assures, ensures, and offers 24/7/365 days of remote access to library resources and online services from anywhere and anytime through

optimizationaccess to the 40+ types of e-Resources (See Appendix A), 35+ online services (See Appendix B), and different types of the e-Content platform (See Appendix G) for its users.

The system supplements and strengthens the existing offlineservices, resulting in optimization of library services. The practice helped to brighten the image of the college. It is a common library among the academic community and has made it possible to provide efficient services and reading resources to them quickly by online mode. The users can get remote access to the specific information resource and service in a very short time with the help of the above interfaces.

4.1. Best Practice Model

The blended model (See Figure 4.1), comprising Library Web Portal, Android App, and QR Codes, is used for granting remote access to the library's e-Resources and online services.

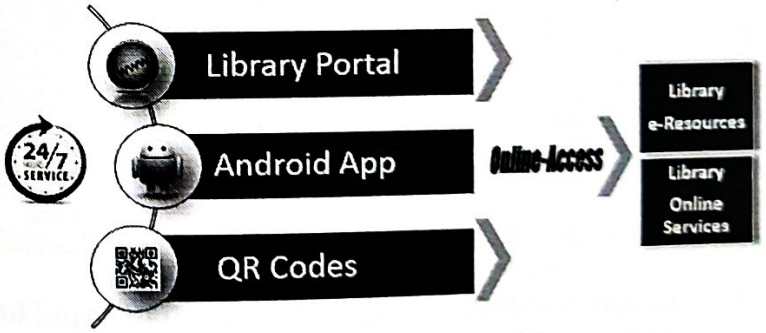

Fig. 4.1. Best Practice Model

4.1.1. Library Web Portal (https://sites.google.com/view/deurcollegelibrary)

The library has developed a dynamic portal (See Fig. 4.1.1) for its users. The library portal consists of 83 web pages with 11500+ links and other documents that are useful to fulfil the academic, research, administrative and other routine needs of the users. If the users are at a remote place or outside of the

college campus, they simply access the portal that allows remote access to the library's e-resources and online services. The portal can be accessed through a desktop computer and smartphone. Most of the users access the portal through smartphones, as the portal is also responsive on smartphones. Since it is easy to use, the usage of the library portal is increasing day by day.

The portal appears to have been viewed more than 32500+ times (See Appendix C) and also accessed by users from foreign countries, i.e., USA, Indonesia, South Korea, Sweden, Bangladesh, Brazil, Botswana, France etc. (See Appendix D).

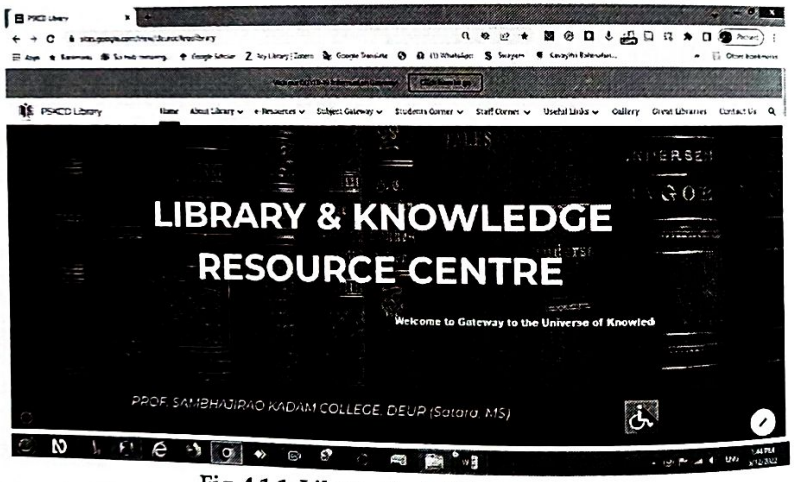

Fig. 4.1.1. Library Portal Homepage

- **Library Web Portal Statistical Details:** (As on April 10th, 2022)
  - * Site Building Platform: Google Site
  - * Number of Webpages: 83
  - * Number of Links and Documents associated: 11500+
  - * Number of Users: 5696 (See Appendix C)
  - * Number of Users from Foreign Countries: 45 (See Appendix D).

  - * Number of Page Views: 32583 (See Appendix C).
  - * Devices used to access the library portal (See Appendix E)
    - (a) Through Mobile: 83.49 %
    - (b) Through Desktop: 16.51 %

4.1.2. Android App (Deur College Library)

The smartphone is a very popular device among library users while accessing the e-resources and online services of the library. To make it more convenient, the library has developed a mobile application based on the Android operating system. Library users can download and install the application on their smartphone and can access all the e-resources and online services of the library at any time and from anywhere.

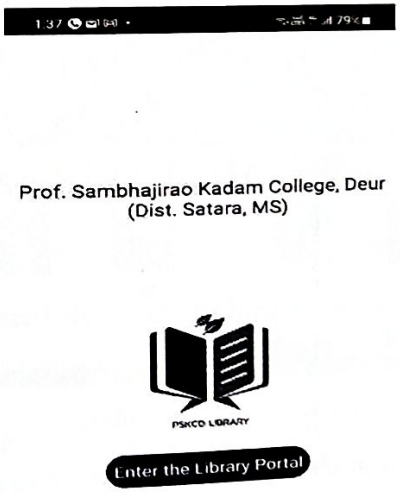

Fig. 4.1.2. Library App Interface

4.1.3 QR Codes (QR Code Gallery)

e-Resources and online services are converted into QR Codes by using QR Code generator software. These QR Codes are printed on paper and displayed on the library notice board, staff room, office, and other departments. Students and teachers scan the particular QR Code with their smartphones to access the e-resources and online services of the library. Furthermore, the accessed e-resource can be viewed, downloaded, printed, and shared. The QR Codes have also been displayed on the "QR Code Gallery" at the library portal. Usually, the users use the QR Code while they are present on the college campus.

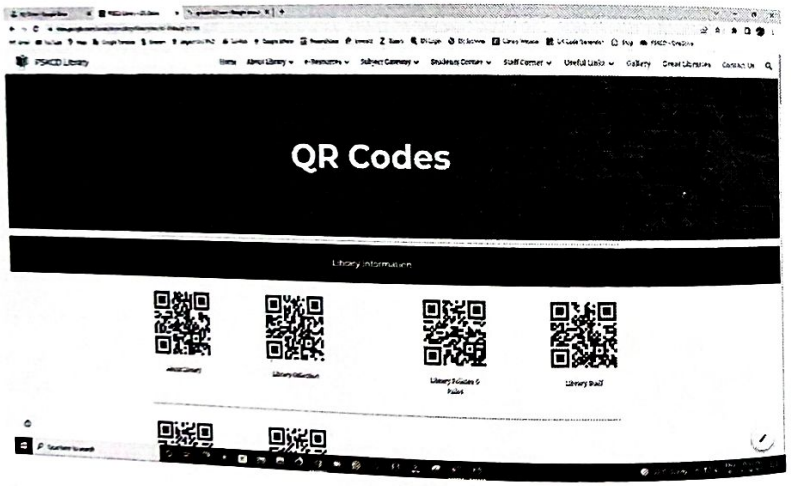

Fig. 4.1.3. QR Code Gallery

4.2. Objectives of the Practice

The following are the prime objectives of best practice:

(a) To offer 24/7/365 days' remote access to the library's e-resources and online services for its users from anywhere and anytime.

(b) To save the time of the library users by providing all e-Resources at a single online platform.

(c) To provide a variety of e-Resources and online services

to the library users to fulfil their academic, research, administrative and routine needs.

(d) To reduce the expenditure on printed reading materials, stationery and support for the green environment.

(e) To save the expenditure on closets or/ furniture needed to keep library reading materials and save the library space.

(f) To promote the use of ICT and smart technology among library users.

4.3. Salient Features of the Practice

The salient features of this best practice are:

(a) Developing a Library Web Portal

(b) Developing an Android-based Web Application for the Library

(c) Developing Quick Response (QR) Codes for Library Resources

(d) Providing remote access to online services and facilities,

(e) Offering Library Value-Added Information Services

(f) usage of free open source tools and software.

4.4. Tools and Resources Required for the Practice

The open-source tools/ software used for performing the best practice. These are easily accessible online and don't require paying any charges. The following tools and resources are required to perform the practice:

Hardware

1. Desktop for processing/accessing the Web Portal, Mobile App and QR Code
2. Smartphone for processing/accessing the Web Portal, Mobile App and QR Code
3. Printer for printing the QR Code

Software and other web tools

1. Website building platforms for developing a website (e.g., *Google Sites, WordPress*, etc.)
2. Cloud Storage-Google *Drive, Dropbox*, etc.
3. Mobile Application Builder: *Thunkable, AppsBuilder, Android Studio*, etc.
4. The QR Code Generator for creating the code.
5. The QR Code Reader for decoding the code

4.5. Evidence of Success/ Output of the Practice

The blended model, comprising Library Portal, Android App and QR Code, is found to be very useful to library users. It offers ease of access to library e-resources and online services.

The Google Analytics Report of "Portal Audience Overview" (See Appendix C) shows that an increasing number of users visit the library portal frequently and use the library's e-Resources and online services from a remote location. Most of the users prefer smartphones while accessing the library portal, as smartphones are very popular among the younger generation of students as well as teachers.

The QR Code Scanned Statistics of "Library App" (Appendix F) reflected that the QR Code of Library App has been scanned more than 1500 times by users so far. It shows the popularity of this app among library users. The college library is now promoting and delivering most of the services through online mode with the help of the above technological platforms.

- Some of the noteworthy outputs from the above practices are as below:
  - Users get quick online access (24/7/365 days) to the library's e-Resources and online services from a remote place.
  - It saved the time and effort of the users while searching for the resources.
  - Expenses on the purchase of printed reading material were reduced.
  - Cost saved for photocopying/printing of documents.
  - The practice supported maintaining a green environment.
  - Expenditure on book closets and furniture was saved.
  - Maximum use of library services and as much space as possible.
  - It reduced the burden on library staff at the circulation counter while delivering the library services.
  - The binding and archiving expenditure on 'Journal Bound Volumes' were saved because of the availability of 'e-Journal Archives'.
  - Users can now submit their feedback online for the library's services and facilities.
  - Students and teachers can submit their requests online for purchasing new books in the library.
  - The practice motivates library users to acquire new ICT skills and use the ICT tools in their routines.
  - The practice strongly supports NAAC core values: contributing *to national development* and *promoting the use of technology* by providing quick online access to the treasure of e-resources related to higher education in one single user-friendly interface.
  - The practice also promotes the objective of our college: to *adopt ICT-enabled learner-centric pedagogy by leveraging cutting-edge technology so as to ensure effective academic delivery* by using ICT tools effectively in the library operations.

4.6. Problems encountered during practice

The library has stored all e-resources on Google cloud storage, which offers free storage up to 15 GB for each e-mail account. To upload additional documents or to use more than 15 GB of free space, the purchase of additional storage space is mandatory. To overcome this problem at an extreme level and save the charges on purchasing additional storage, the library has created a separate e-mail account for different types of e-resources and obtained 15 GB of storage space for each e-resource.

5. CONCLUSION

The UGC, NAAC, AICTE and other higher educational bodies are continuously striving to maintain the quality standards and excellence in the higher education system in India. The new teaching-learning expected in National Educational Policy 2020 is backed by advanced digital technologies, online learning resources, and blended modes of acquiring knowledge. Higher education institutes will have to adapt in line with these policies. The same principle applies to academic libraries. Academic libraries also need to not only rely on traditional services but also adopt best practices with the highest standards to provide quality services to the users as per their needs. The satisfaction of library users should be the ultimate goal of each academic library, and there is no substitute for applying best practices while delivering quality library services to satisfy users.

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APPENDICES

APPENDIXA: LIST OF E-RESOURCES HAVING 24/7/365 REMOTE ACCESS

Library e-Resources & other documents

e-Resources Gateway	N-LIST & NDL databases
Shivaji University e-Resources	UGC-INFONET e-Resources
e-Books	Audio Books
e-Journals	e-Journals Volume
e-Journals Archives	e-Reports
Software	PDF e-Content
Audio Notes	Video Lectures
Subject Notes	Online Tests-Quiz
Question Bank	PPT Bank
College Activity Reports	College e-News
e-Syllabus	e-Question Papers
e-Prospectus	e-Mudhai (College Magazine)
Textbook Titles	Office/Administrative Forms
Dictionaries	Encyclopaedias
Year Books	e-Thesis & Dissertations
e-Newspapers	TV News Channels
Digital Libraries/Repositories	Online Directories
Patents	Government GRs
Online Learning Resources	Live Channels
e-ShodhSindhu	Shodhganga Repository
Shodhgangotri	UGC-CARE Journals
MOOC Online Courses	Swayam Online Courses

APPENDIX B: LIST OF ONLINE SERVICES HAVING 24/7/365 REMOTE ACCESS

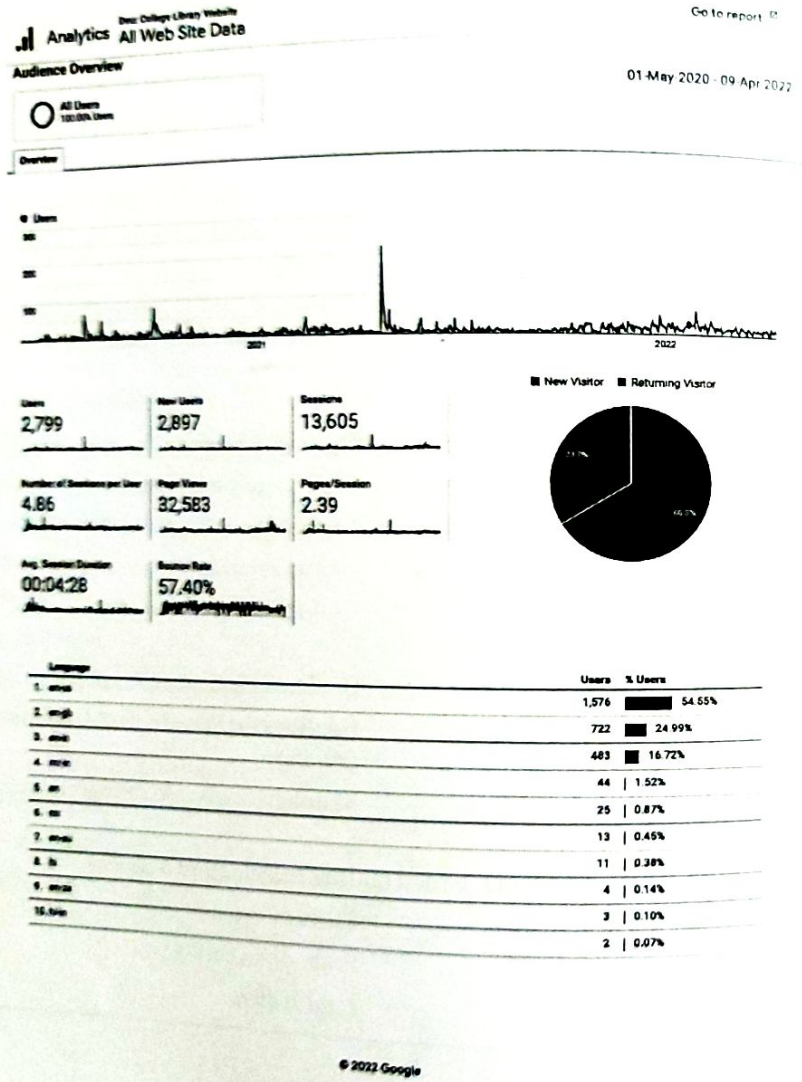
Library Online Services

Library Portal	Android App- Library & College
QR Code Gallery	Online Public Access Catalogue (OPAC)
Library Membership Online Application	Library Books Online Requisition
Library Users Online Feedback	Scholar's Card Online Application
Inter-Library Loan Online Application	Online Union Catalogue of College Libraries
Information Broadcasting through social media: *WhatsApp, Facebook, Twitter, Telegram, YouTube* and *Instagram* etc.	*Research@PSKCD*: Research recording facility for the Staff Members
Digital Payments to Library	Online Classrooms
Students Corner Interface	Staff Corner Interface
e-Content Gateway	Digital Books Fair
Directory of College Librarians	Ask a Librarian
Competitive Examinations Gateway	COVID-19 Info. Gateway
Women's Corner	Students Placement Registration
Daily Life Utilities	Facilities for Persons with Disabilities (PwDs)
Committee Meeting Online Registration	Maintenance Work Online Intimation

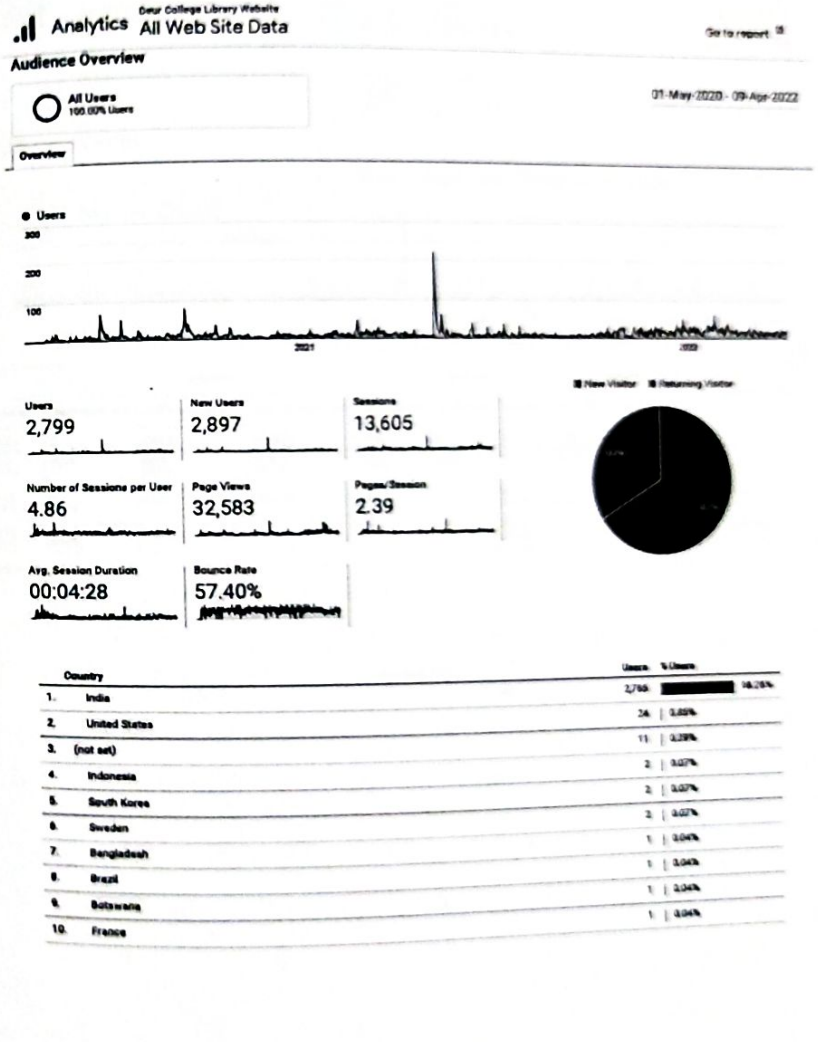
Library Value Added Online Information Services

IT Corner	Career Corner
Employment Outlook	Prabodhan Series
Success Stories	Health Plus

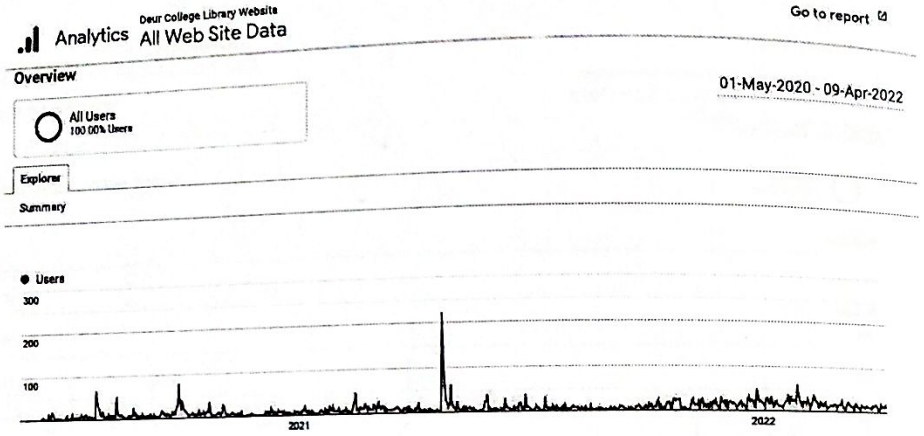
APPENDIX C: LIBRARY PORTAL AUDIENCE OVERVIEW



APPENDIX D. COUNTRY-WISE ACCESS TO LIBRARY PORTAL



APPENDIX E. DEVICE-WISE ACCESS TO LIBRARY PORTAL



Device Category	Acquisition			Behaviour			Conversions		
	Users	New Users	Sessions	Bounce Rate	Pages/Session	Avg. Session Duration	Goal Conversion Rate	Goal Completions	Goal Value
	2,799 % of Total: 100.00% (2,799)	2,898 % of Total: 100.03% (2,897)	13,605 % of Total: 100.00% (13,605)	57.40% Avg for View: 57.40% (0.00%)	2.39 Avg for View: 2.39 (0.00%)	00:04:28 Avg for View: 00:04:28 (0.00%)	0.00% Avg for View: 0.00% (0.00%)	0 % of Total: 0.00% (0)	$0.00 % of Total: 0.00% ($0.00)
1. mobile	2,342 (83.69%)	2,423 (83.61%)	8,136 (59.80%)	65.61%	1.89	00:02:15	0.00%	0 (0.00%)	$0.00 (0.00%)
2. desktop	463 (16.51%)	475 (16.39%)	5,469 (40.20%)	45.18%	3.14	00:07:46	0.00%	0 (0.00%)	$0.00 (0.00%)

Rows 1 - 2 of 2

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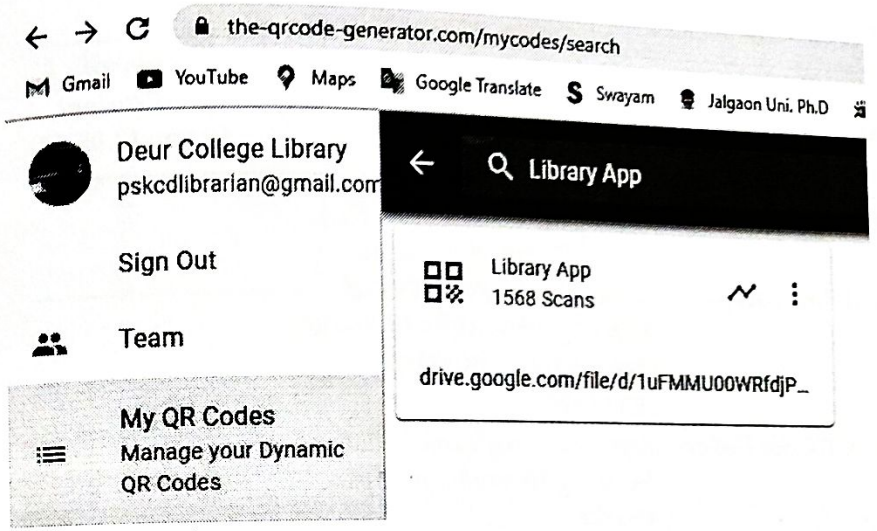
APPENDIX F: SCAN STATISTICS OF LIBRARY APP'S QR CODE



APPENDIX G: DETAILS OF E-CONTENT ACCESS PLATFORMS

Sr. No	Name of the Platform	Web Link for accessing the e-Content	No. of e-Content (As on 12.05.22)
1	Library Portal	https://sites.google.com/view/deurcollegelibrary	–
2	Library App	https://sites.google.com/view/deurcollegelibrary/about-library/library-services-facilities/library-app	–
3	QR Code Gallery	https://sites.google.com/view/deurcollegelibrary/useful-links/qr-codes	–
4	College YouTube Channel	https://www.youtube.com/channel/UCb-ayrhUyjdCq3fYZ9jrHnA/featured	258
5	Online Classrooms	https://sites.google.com/view/deurcollegelibrary/students-corner/online-classrooms	–
6	Online e-Resources	https://sites.google.com/view/deurcollegelibrary/e-resources	–
7	Institutional Digital Library	http://192.168.0.3:8080/	–
8	e-Content Gateway	https://sites.google.com/view/deurcollegelibrary/e-resources/e-content-gateway	09
9	PDF e-Content	https://sites.google.com/view/deurcollegelibrary/e-resources/e-content-gateway/pdf-e-content	137
10	Audio Notes	https://sites.google.com/view/deurcollegelibrary/e-resources/e-content-gateway/audio-notes	219
11	Video Lectures	https://sites.google.com/view/deurcollegelibrary/e-resources/e-content-gateway/video-lectures	213
12	Subject Notes	https://sites.google.com/view/deurcollegelibrary/e-resources/e-content-gateway/subject-notes	134

13	Online Tests-Quiz	https://sites.google.com/view/deurcollegelibrary/e-resources/e-content-gateway/online-tests-quiz	322
14	Question Bank	https://sites.google.com/view/deurcollegelibrary/e-resources/e-content-gateway/question-bank	84
15	PPT Bank	https://sites.google.com/view/deurcollegelibrary/e-resources/e-content-gateway/ppt-bank	391