

## **Zero-Cost, High Impact: A Case Study on the Development of the GMIPSR Library Portal Using Blogger**

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### **Abstract**

*In response to the growing need for digitization within academic institutions, the librarian of the GM Institute of Pharmaceutical Sciences and Research (GMIPSR) developed a zero-cost, scalable library portal utilizing Google's Blogger platform. This case study examines the design, structure, and implementation of the portal, emphasizing the integration of internal tools (Gmail, Google Drive, Google Forms, Google Custom Search, and various Blogger gadgets) alongside external technologies (YouTube, Facebook, X, Google Scholar, ResearchGate, Academia, Favicon, Canva, Dayspedia, WhatsApp, and Tawk.to) to enhance access to academic resources. The portal provides centralized access to syllabi, question papers, research materials, and electronic resources available through HELINET, effectively addressing challenges related to limited IT infrastructure and financial constraints. Employing a descriptive and application-oriented methodology, the study illustrates how free digital platforms can be strategically leveraged to improve library services in resource-constrained academic environments. With over 193,763 views as of June 2025, the GMIPSR Library Portal demonstrates significant user engagement and presents a replicable model for digital transformation in small and medium-sized academic libraries.*

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**Keywords:** GMIPSR Library, Library Portal, Pharmacy Libraries, Library websites, Blogger Websites.

### **1. Introduction**

In today's academic landscape, libraries have evolved from being mere repositories of physical books to becoming dynamic digital hubs that offer online services and virtual engagement (Thanuskodi, 2012). With educational institutions increasingly adopting technology to support learning and research, it has become essential for libraries to develop accessible and efficient digital platforms (Raju, R., & Schoombee, 2013) and (Madhu & Kannappanavar, 2024). However, many institutions, especially in developing regions, encounter significant challenges such as limited financial resources, lack of skilled technical staff, and inadequate infrastructure, which impede the implementation of advanced library systems (Chisita, 2011). Addressing these issues innovatively, the librarian of GM Institute of Pharmaceutical Sciences and Research (GMIPSR) launched a zero cost-effective digital solution by creating a dedicated library website using Google's Blogger platform. Blogger,

known for its free, user-friendly interface and built-in features like mobile responsiveness, customizable templates, and easy integration with Google services, enabled the development of a functional and sustainable online portal without requiring technical expertise (Blogger.com, n.d.). Through this platform, the GMIPSR library now provides centralized access to key academic resources such as course syllabi, previous years' question papers, question banks, curriculum outlines, HELINET guides, and general library information, including statistics and contact details. This initiative highlights how free digital tools can significantly enhance library services, bridge access gaps, and improve academic support for students and faculty. This paper offers a comprehensive case study of the GMIPSR Library Portal, outlining its development, structure, implementation strategies, and overall impact, and aims to guide other institutions facing similar constraints in replicating such models.

## **2. Objectives of the Study**

The development of the GMIPSR Library Portal was undertaken with a focus on enhancing accessibility, integrating diverse digital tools, and establishing a replicable framework to support academic and research activities in resource-constrained environments. The following objectives were formulated to guide the design and documentation of the portal:

- To systematically examine and document the incorporation of diverse web-based tools and technologies in the development of the GMIPSR Library Portal to enhance the accessibility and dissemination of library resources.
- To position the GMIPSR Library Portal as a scalable and replicable model for pharmacy libraries and other small-scale academic libraries operating with limited digital infrastructure.

## **3. About GMIPSR Library**

The GM Institute of Pharmaceutical Sciences and Research (GMIPSR), located in Davanagere, Karnataka, is a premier institution offering diploma and degree programs in pharmaceutical sciences. As an essential academic support unit, the GMIPSR Library plays a vital role in facilitating education, research, and knowledge dissemination. The library houses a diverse collection of textbooks, reference materials, national and international journals, dissertations, and access to digital content through platforms like HELINET (Health Sciences Library and Information Network). In addition to physical resources, the library provides reading spaces, guidance for project work, and support for academic inquiries. However, the lack of a dedicated digital interface limited the reach and efficiency of library services particularly for students seeking quick access to materials outside of library hours or during remote learning periods. To address this gap, the library initiated the development of an online portal that would make key academic resources accessible in a structured and user-friendly manner.

## **4. Methodology**

The study adopts an application-oriented, descriptive, and observational approach to evaluate the technical components and integrations implemented on the homepage of the GMIPSR Library Website, developed using the Blogger platform. The analysis focuses specifically on the practical deployment of digital tools, embedded technologies, and third-party services that enhance the functionality, accessibility, and operational efficiency of the site. Data was

gathered through direct examination of the live website, identifying both internal and external integrations used to support library services. A detailed walkthrough was conducted to inspect technical elements such as embedded scripts, gadgets, widgets, and hyperlinks. This approach enabled the systematic identification, implementation, and documentation of technical components that contribute to the digital enhancement of the GMIPSR Library portal. The study does not assess user feedback or content quality, focusing exclusively on the technological infrastructure and embedded tools integrated into the homepage.

## **5. About Blogger Platform: A Complete Overview**

Blogger, originally developed by Pyra Labs and acquired by Google in 2003, remains one of the oldest and most accessible web publishing platforms still in active use. Renowned for its user-friendly interface and seamless integration with Google services, Blogger allows users to create blogs and lightweight websites without the need for advanced programming skills. The platform supports essential functionalities such as HTML/CSS editing, gadget integration, and the embedding of multimedia and third-party content. Beyond the default themes offered by Google, Blogger also enables design customization through the use of external templates developed by third-party designers. This added flexibility allows users to achieve modern, responsive, and visually enhanced layouts tailored to specific institutional or personal needs. Such features make Blogger particularly appealing to educational institutions, libraries, and individual educators seeking cost-effective, low-maintenance web solutions.

Despite its advantages, Blogger has notable limitations, including the absence of advanced plugin ecosystems, restricted backend control, and a limited range of official templates compared to more sophisticated content management systems such as WordPress. However, its free hosting, integration with Google tools, and minimal technical overhead continue to make it an attractive option for establishing a basic digital presence. As of 2025, Blogger is estimated to host over 700 million blogs globally, with a particularly strong user base among educators, librarians, small organizations, and content creators in developing regions, where affordability and simplicity are essential. Overall, Blogger continues to offer a reliable, adaptable, and scalable solution for academic websites, institutional portals, and personal digital projects.

## **6. Visual Overview of the Library Portal**

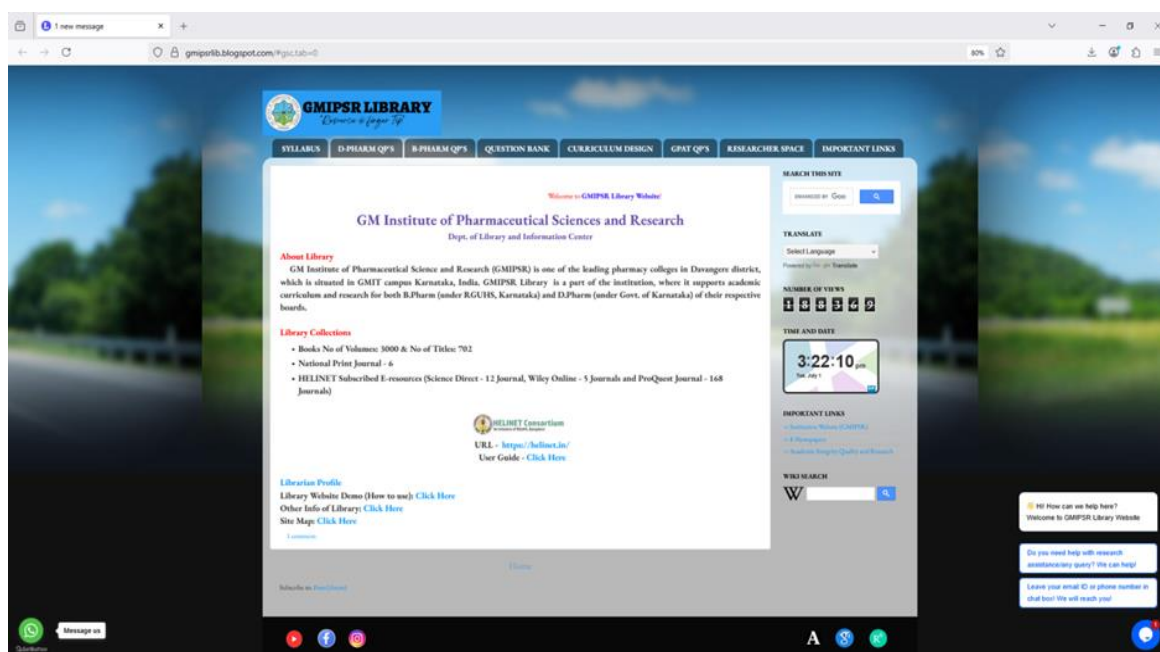
The home page of the GMIPSR Library Portal is professionally structured and user-friendly, reflecting key academic and library resources. The design is clean, with a prominent header and organized sections that provide essential library information for students, faculty, and researchers.

### **Header Section**

The header section of the GMIPSR Library Portal features the institution's logo and the official title, "GMIPSR LIBRARY", accompanied by the tagline "Resources @ Your Fingertips", reflecting the portal's commitment to digital accessibility. A prominently placed Home button allows users to return to the main page at any time, ensuring ease of navigation. Directly below the header, a horizontal navigation bar provides quick access to key academic resources through clearly labelled menu tabs. These include:

- SYLLABUS – Covers both D. Pharmacy and B. Pharmacy syllabus.

- D-PHARM QP's – Contains 1st and 2nd-year question papers for D. Pharmacy.
- B-PHARM QP's – Provides access to B. Pharmacy question papers from 1st to 8th semester.
- QUESTION BANK – Offers subject-wise question banks for B. Pharmacy students.
- CURRICULUM DESIGN – Features semester-wise curricular structure for B. Pharmacy (1st to 8th).
- GPAT's QP – Includes previous Graduate Pharmacy Aptitude Test (GPAT) question papers.
- RESEARCHER SPACE – Hosts links to academic writing resources, research methodology materials, and reference books.
- IMPORTANT LINKS – Provides access to educational portals such as e-PG Pathshala, free eBook repositories, and academic networking platforms.



**Figure 1: Home Page of the portal**

This structured navigation ensures that students and faculty can quickly access course-related materials, enhancing the usability and academic relevance of the website. The inclusion of topic-specific tabs reflects a thoughtful, user-centred design that aligns with the curriculum needs of pharmacy education. By grouping resources logically and making them available through a single click, the header layout significantly contributes to the digital readiness and academic engagement of users, especially in a self-service learning environment.

### **Main Content Area**

- The 'Welcome to GMIPSR Library Website!' message introduces users to the library site and is displayed using a marquee tag."
- A brief "About Library" section highlights that GMIPSR is a pharmacy college located in Karnataka and elaborates on the role of the library in supporting B.Pharm and D.Pharm students.

- The Library Collections section mentions: Total number of books: 3000 volumes / 702 titles, Print journals: 6, E-resources via HELINET: Science Direct (12 journals), Wiley Online (5 journals), and ProQuest (168 journals)
- Below there is a clickable HELINET Consortium link with a user guide connected to pdf.
- The link to the Librarian Profile redirects to an external page, and a link to the Library Website Demo (a how-to-use guide) is also provided to help users navigate the website, using an embedded YouTube external page.

## **Right Sidebar**

Features several widgets:

- Search This Site: Google Custom Search bar
- Number of Views: Dynamic counter showing site visits
- Time and Date Widget: A digital clock and calendar display
- Important Links: Quick access to institutional and academic resources
- Wiki Search: Direct search box linked to Wikipedia
- Social Plugins: Icons linked to the library's social media presence (YouTube, Facebook, Instagram, X)

## **Footer / Bottom Section**

The footer section of the website includes essential information such as the "Last Updated" date, indicating the most recent modification or content addition. This ensures transparency, helps users identify the currency of the site's information, and reflects the website's maintenance status.

## **Implementation of Technical Components in the GMIPSR Library Portal**

The development and customization of the GMIPSR Library Website required familiarity with basic web technologies to ensure effective integration and layout optimization. HTML was employed for minor structural customizations, such as embedding external content, modifying gadget layouts, and linking essential resources. CSS was used to enhance the site's visual presentation, enabling font adjustments, colour scheme control, and improved spacing for a cleaner user interface. Although not mandatory, a basic understanding of JavaScript proved beneficial for embedding interactive widgets and integrating dynamic elements such as clocks and counters. These foundational web development skills facilitated the seamless configuration of the Blogger platform to meet the functional and service-oriented needs of the library. Furthermore, to improve the accessibility, interactivity, and efficiency of its digital presence, the GMIPSR Library Portal implemented a wide range of technical components, categorized under two primary subheadings: internal and external integrations. These integrations were strategically applied to support the library's mission of delivering user-centered services through the effective use of modern web technologies.

## **Internal Integrations**

**Gmail:** <https://mail.google.com>

A Gmail account is the primary requirement for creating and managing a blog on the Blogger platform. As a part of the Google ecosystem, Blogger uses Gmail credentials for user authentication, providing secure access to the blog dashboard and related Google services. Once signed in with a Gmail account, users can easily set up a new blog, customize its layout, and integrate additional tools like Google Drive, Google Forms, and Google Analytics. This seamless integration simplifies the setup process and ensures a unified experience across all Google-based applications used in blog development.

### **About Atom blogger Theme**

The GMIPSR Library Website is designed using the Atom theme available within the Blogger platform, selected for its clean, minimalist layout and user-friendly structure. The Atom theme offers a responsive design that adapts well across devices, ensuring optimal viewing on desktops, tablets, and smartphones. It features a straightforward navigation system, customizable sidebar, and ample white space, which collectively enhance readability and content accessibility. The theme supports widget integration, including search bars, social plugins, and link lists, making it ideal for academic websites that require clarity, structure, and functional simplicity. Its visually balanced layout aligns well with the needs of an educational portal by focusing user attention on key resources without unnecessary distractions.

**Google Drive:** <https://drive.google.com>

The site used Google Drive which provides secure cloud-based storage for uploading and organizing library resources such as notices, syllabus, e-books, project reports, scanned documents, and question papers. These resources can be shared via direct links or embedded in blog pages, allowing users to access materials anytime, anywhere. Drive also supports collaborative file management among librarians and faculty.

**Google Forms:** <https://forms.google.com>

The site used google forms which enables interactive features on the library blog such as online book recommendation forms, user feedback, and library membership forms. Responses are automatically collected in a Google Sheet, making data management easy. Embedded forms on the blog provide a seamless way to engage easily with students and faculty to collect relevant information.

**Google Custom Search:** <https://programmablesearchengine.google.com>

The site integrates a Google Custom Search bar in the right sidebar to facilitate both site-specific and web-wide information retrieval. Configured using Blogger's built-in gadget, this tool allows users to search for keywords either within the library website to locate resources such as syllabi, question papers, and research links or across the broader internet, depending on the search settings. This dual functionality significantly improves user navigation and research efficiency, making it easier for students and faculty to access relevant content quickly. By leveraging Google's powerful search capabilities, the tool enhances the portal's usability and aligns with the website's goal of providing seamless access to academic information.

## **Blog Statistics Gadget**

The GMIPSR Library Website utilizes the Blog Statistics gadget a built-in feature of the Blogger platform to display the total number of page views directly in the right sidebar. This gadget automatically tracks and updates site visit data, allowing users to view how frequently the site is accessed. It serves as a transparent indicator of the website's reach and engagement over time, without requiring any third-party tools or custom coding. The blog statistics gadget is seamlessly integrated into the site layout and contributes to measuring digital visibility while reinforcing user confidence in the site's activity and relevance.

## **Translate Gadget**

The portal includes the Translate gadget in its sidebar to enhance accessibility for a linguistically diverse user base. Powered by Google Translate, this built-in Blogger widget allows visitors to instantly translate the website content into multiple languages with a single click. The gadget supports seamless translation without leaving the page, thereby improving usability for non-English-speaking users. By enabling multilingual access, the translate feature supports inclusivity and ensures that essential academic resources are available to a broader audience, including students and faculty from various linguistic backgrounds.

## **Wikipedia Gadget**

The portal used to integrate a Wikipedia Search gadget in the right sidebar to provide users with quick access to general reference information. This built-in Blogger feature allows visitors to enter a keyword and directly search Wikipedia, the world's largest online encyclopaedia, without navigating away from the library site. By offering an embedded search interface, the gadget supports instant retrieval of background knowledge, definitions, and overviews on a wide range of topics. It enhances the portal's academic utility by serving as a supplementary resource for pharmacy students seeking foundational understanding alongside their formal coursework materials.

## **RSS Feed Gadget**

The RSS Feed gadget in Blogger allows the GMIPSR Library portal to integrate and display content updates from external websites, such as academic news portals, library blogs, or open-access journals. This gadget automatically fetches and displays the latest posts or headlines from an RSS (Really Simple Syndication) feed, enabling dynamic content to appear on the site without manual updating. By embedding this tool in the sidebar or a dedicated section, the library portal keeps users informed about recent developments in pharmacy education, research trends, or institutional announcements. The gadget enhances the portal's value by acting as an information aggregator, promoting continuous engagement and timely access to relevant resources for students and faculty alike.

## **Link List Gadget**

The site utilizes the Link List gadget, a native Blogger feature, to display a curated collection of essential academic and institutional hyperlinks. Located in the right sidebar, this gadget offers users convenient access to a range of external resources including the Institution's Official Website (GMIPSR), free E-Newspaper portals, and a direct link to an embedded PDF book titled "Academic Integrity, Quality, and Research," which is hosted on an external

page but accessible through the library site. The gadget's flexible structure allows the administrator to continuously update or expand the list of links, making it a dynamic tool for directing users to high-quality educational content beyond the main site. This contributes to a well-integrated digital learning environment that supports both academic study and institutional transparency.

## **External Integrations**

### **General tools**

**Favicon:** <https://favicon.io/>

A favicon, or "favorite icon," is a small image that represents a website in browser tabs, bookmarks, and shortcuts, enhancing brand visibility and user experience. For the GMIPSR Library Portal, a customized favicon image was generated using the open-access tool Favicon.io. This visually distinctive icon helps users easily identify and return to the portal among multiple open tabs or saved links. The use of a favicon reflects a commitment to professional web design and institutional branding.

**Canva:** <https://www.canva.com>

Canva is a free online graphic design platform that was used to create the GMIPSR Library logo and other visual content for the portal. It offers an easy-to-use interface with a wide range of templates, icons, and customization options, allowing users to design professional graphics without advanced design skills.

**Dayspedia:** <https://dayspedia.com>

Dayspedia provides customizable widgets that display the current date, time, and day on websites. It was used in the portal to keep users informed in real-time, adding a dynamic and functional element to the homepage.

### **Social Networking Sites**

**YouTube:** <https://www.youtube.com>

YouTube links were added to share video tutorials, webinars, and library orientation content. This platform supports visual learning and helps the library extend its services to remote and tech-savvy users.

**Facebook:** <https://www.facebook.com>

Facebook was linked to foster community engagement, event announcements, and academic updates. It serves as a communication bridge between the library and its users, especially for updates outside formal channels.

**Instagram:** <https://www.instagram.com>

Instagram was used to share library visuals, news, and achievements in a more informal and creative format. This platform enhances visibility among younger audiences and promotes the library brand through storytelling.

**X (Twitter):** <https://www.twitter.com>

X (formerly Twitter) was added to share quick updates, resource alerts, and educational insights. Its microblogging format allows timely information dissemination and engagement with the academic community.

### **Academic Networking Sites**

**Google Scholar:** <https://scholar.google.com>

Google Scholar was linked as a gateway to scholarly articles, research papers, and citations. It supports students and researchers by offering easy access to credible academic literature.

**ResearchGate:** <https://www.researchgate.net>

ResearchGate provides access to research publications, profiles of researchers, and academic collaborations. Including this link helps users discover ongoing research and connect with subject experts.

**Academia.edu:** <https://www.academia.edu>

Academia.edu is a platform for researchers to share papers and track academic impact. It offers access to a vast library of scholarly documents and helps users follow relevant topics in their field.

### **Web 2.0 technologies**

**WhatsApp:** <https://www.whatsapp.com>

WhatsApp's Click-to-Chat feature was added to the portal to enable direct communication between users and the librarian. This mobile-friendly tool improves responsiveness and facilitates quick query handling, especially for students seeking support on-the-go.

**Tawk.to:** <https://www.tawk.to>

Tawk.to is a free live chat tool that allows real-time communication between website visitors and administrators. It was embedded in the portal to provide instant assistance, improve user engagement, and offer 24/7 support through chatbots or live representatives.

**MIT App Inventor:** <https://appinventor.mit.edu>

MIT App Inventor was explored as a supplementary tool for developing a basic prototype of a mobile application version of the GMIPSR Library Portal. It enables the creation of Android apps through a drag-and-drop interface, supporting greater accessibility and mobile-friendly services for students.

## **7. Conclusion**

The development of the GMIPSR Library Portal using the Blogger platform serves as a notable illustration of how freely available, web-based tools can be effectively utilized to deliver high-impact digital library services within a resource-constrained academic environment. By adopting a zero-cost, user-friendly solution, the library successfully

established an inclusive, functional, and responsive online presence that addresses the diverse academic needs of both students and faculty.

The portal has markedly enhanced access to resources, enabling users to retrieve syllabi, question papers, and e-resources remotely and at their convenience. Furthermore, the integration of Web 2.0 technologies, academic resource links, keyword-based search functionality, and social media platforms has significantly improved interactivity, communication, and user engagement. This initiative also underscores the evolving role of librarian effort not merely as custodians of physical collections, but as active facilitators of digital access and scholarly communication.

This case demonstrates that digital transformation in library services need not depend on sophisticated infrastructure or substantial financial investment. With strategic planning and foundational digital literacy, even smaller institutions can develop sustainable and scalable digital platforms. The portal's impact is further evidenced by its usage metrics, having recorded over 193,763 views as of 23 July 2025, thereby affirming its significance as a vital academic resource hub.

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