

Future of Academic Librarianship in the Era of AI with Special Reference to Government First Grade College Libraries in Karnataka

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ABSTRACT

The rapid advancement of Artificial Intelligence (AI) is reshaping academic librarianship worldwide. In the context of Government First Grade College (GFGC) libraries in Karnataka, the adoption of AI presents both opportunities and challenges. This article explores the current landscape, the potential roles of AI in transforming library services, capacity building for librarians, and strategic recommendations to enhance information access, user engagement, and resource management. The study highlights the crucial for policy support, continuous professional development, and infrastructure enhancement to ensure successful AI implementation. It concludes that AI can significantly strengthen academic librarianship but requires appropriate planning and resource allocation.

KEYWORDS: academic librarianship, artificial intelligence, Government First Grade College libraries, Karnataka, digital transformation, library services.AI in Libraries.

1. INTRODUCTION

Academic libraries have conventionally served as the academic heart of educational institutions, facilitating access to information and nurturing knowledge creation. In recent decades, advances in digital technologies have revolutionized libraries, expanding their roles from custodians of physical collections to providers of dynamic digital services. Today, Artificial Intelligence (AI), with its ability to analyze data, automate processes, and support decision-making, presents a momentous paradigm shift for academic librarianship.

In the Indian state of Karnataka, Government First Grade College (GFGC) libraries cater to a diverse student population with limited resources. These libraries are often challenged by inadequate infrastructure, staffing constraints, and limited access to digital tools. The emergence of AI technologies emerges fundamental questions about how academic librarianship can progress within these institutions to meet future educational needs.

This article scrutinizes the future of academic librarianship in the era of AI, focusing specifically on GFGC libraries in Karnataka. It talks about AI potential in library functions, explores present confronts and readiness, and offers suggestions to influence AI effectively for user-centric services.

2. AI IN ACADEMIC LIBRARIES: AN AWARENESS

Artificial Intelligence refers to computer systems capable of performing tasks that typically require human intelligence. These include machine learning, natural language processing (NLP), automated reasoning, recommendation engines, and predictive analytics (Russell & Norvig, 2021).

Key AI applications in libraries include:

- Library Automation, Cataloguing and metadata creation
- Quick search and Detection tools
- Chat bots and virtual reference services
- Personalized suggestion systems
- Data analytics for collection development and user conduct analysis

AI enhances efficiency by automating repetitive tasks, enriching metadata, improving accessibility, and transforming user interaction paradigms (Ahmed & Rafiq, 2022).

3. CURRENT SCENERY OF GFGC LIBRARIES IN KARNATAKA

Government First Grade Colleges in Karnataka form the backbone of undergraduate education across rural and urban regions. These colleges typically offer disciplines such as arts, commerce, business administration, management and social work. Their libraries serve as key support systems for academic quests but face structural limitations:

- In-adequate digital infrastructure
- Limited Internet bandwidth
- Shortage of Trained Human Resources
- Budget limits
- Dependence on conventional library systems

An exploratory survey of GFGC libraries discloses that while many have automated library management systems, the adoption of advanced technologies such as AI remains minimal or non-existent. Most services are manual or semi-automated, with limited digital resource integration.

4. PROSPECTIVE OF AI IN CHANGING GFGC LIBRARIES

AI can transform academic library services across multiple dimensions:

1. Improved Information Discovery

AI-driven search systems offer semantic search capabilities that understand user objective rather than relying on keyword matching alone. This is particularly useful for students unfamiliar with subject terminology. AI can also assist in multilingual search — a critical characteristic for Karnataka's linguistically diverse student body.

2. Effective Reference and Chat bots

AI chat bots can provide round the clock reference assistance, answering routine queries, guiding users to resources, and facilitating access to services. For small libraries with limited staff, chat bots decrease workload and expand support.

3. Automated Classification and Cataloguing

Machine learning algorithms can automate metadata generation and classification of resources, reducing cataloguing backlogs and improving discoverability. This is especially advantageous for libraries managing mixed collections of print and electronic materials.

4. Extrapolative Analytics for Collection Development

AI can examine usage patterns to predict demand for resources, enabling data-driven acquisitions. This supports most favorable budget utilization — a significant concern for GFGC libraries.

5. Individualized User Services

Personalization engines can recommend appropriate resources based on individual user profiles and academic requirements, enhancing user commitment and fulfillment.

5. CONFRONTS AND BARRIERS TO AI ADOPTION

Despite the promising possibilities, several confronts obstruct AI integration in GFGC libraries:

1. Insufficiency of Infrastructure

Many libraries lack enough computing infrastructure and consistent Internet connectivity — prerequisites for AI deployment.

2. Proficiencies Gap

Librarians often lack training in AI concepts, data analytics, and technical management. This proficiency gap hampers the adoption and sustainability of AI tools.

3. Financial limitations

Budget constraints restrict procurement of AI tools, digital resources, and day-to-day maintenance.

4. Data confidentiality and Ethical Issues

AI systems require robust data governance frameworks to protect user confidentiality and ensure ethical use of data.

5. Policy and Tactical Planning

There is a lack of state-level policies or guidelines specifically addressing AI adoption in academic library settings, leading to extemporized implementation efforts.

6. CAPABILITY STRENGTHENING AND PROFESSIONAL DEVELOPMENT

For AI to be effectively integrated into GFGC libraries, library professionals must be equipped with the necessary skills. Suggested strategy includes:

- Training programs on AI Concept
- Seminars on data analytics, machine learning, and digital tools
- Shared learning platforms for Academic Library Professionals
- Partnerships with stakeholders and AI professionals

Professional bodies or associations can play a critical role in facilitating continuous learning and knowledge exchange among library professionals.

7. PREMEDITATED SUGGESTIONS FOR AI ADOPTION

To enhance the future willingness of GFGC libraries, the following approaches are recommended:

1. Infrastructure Improvement

State education departments should allocate funds to upgrade library infrastructure, including computers, high-speed Internet, and cloud services.

2. Policy constructions

Progress of clear policies at the institutional and state levels to guide AI adoption with prominence on ethics, privacy, and sustainability

3. Joint Networks

Form partnerships with software vendors, academic institutions, and open-source communities to access Inexpensive AI solutions.

4. User-Oriented Service Design

Focus on user needs and feedback while implementing AI tools to ensure significance and usability.

5. Monitoring and Evaluation Cell

Establish mechanisms to regularly assess the impact of AI systems on library services and user feedback.

CONCLUSION

The future of academic librarianship in the era of AI presents momentous opportunities for Government First Grade College libraries in Karnataka. While challenges related to infrastructure, skills, and finance exist, strategic planning and targeted investments can enable these libraries to transform into dynamic, user-oriented spaces driven by intelligent systems. AI has the potential to enrich library services, improve access to information, and contribute to student success. However, effective accomplishment requires strong leadership, capacity building, and supportive policy guidelines.

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