

Modern and Traditional Information Sources in a Hybrid Landscape: ICT Impact on PG Students at GFGC Maski

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Abstract:

The study examines the integration of Information and Communication Technology (ICT) in academic libraries, focusing on the information-seeking behavior of 130 postgraduate students at Government First Grade College (GFGC) in Maski, Karnataka. It assesses students' awareness and usage patterns of academic information sources through a structured questionnaire, utilizing frequency distribution and percentage analysis for data interpretation. Results indicate a strong awareness of ICT among students, with frequent use of the Internet, search engines, and databases. Nonetheless, traditional print resources like journals and textbooks remain critical in their academic research. Resource selection is shaped by content quality, publisher reputation, and author credibility. Students face challenges such as inadequate search skills, time constraints, and limited access to resources. Despite their general satisfaction with library and ICT facilities, digital literacy and resource accessibility issues persist. The study underscores ICT's vital role in improving search efficiency and information access while emphasizing the enduring importance of print resources. It recommends enhancing digital collections, providing ICT training, and promoting a balanced integration of print and digital resources to improve research outcomes in resource-limited settings.

Keywords: ICT, Academic Libraries, Information-Seeking Behavior, Hybrid Information Environment, Digital Resources.

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I. Introduction

The rapid advancement of Information and Communication Technology (ICT) has notably transformed academic libraries and information services globally. Traditionally, libraries focused on providing access to print materials such as books and journals. The digital revolution has transitioned them into hybrid centers that combine physical resources with digital tools, databases, and online platforms (Gattagoni Rama Devi & Bhatt, 2024; Keskar, 2025). Postgraduate (PG) students now face new opportunities and challenges in information access and utilization. While ICT has accelerated information retrieval and widened access to various digital resources like e-journals and institutional repositories (Shivakumar, 2017), students often struggle with barriers including inadequate digital literacy, limited resource access, and information overload, which adversely impact their research and learning outcomes. Academic libraries are pivotal in aiding the effective use of both print and digital collections. By integrating ICT into their services, librarians can serve as knowledge facilitators, assisting students in selecting credible sources, formulating search strategies, and navigating complex information environments (Ting Liu et al., 2025; Amin et al., 2024). Understanding students' information-seeking behaviors in these hybrid settings is vital for developing responsive library services and fostering digital literacy. This study specifically targets PG students at Government First Grade College (GFGC), Maski, Karnataka, examining how ICT affects their information-seeking behavior, preferences regarding traditional versus digital sources, search strategies, and challenges encountered in accessing academic information. The research aims to provide insights that can enhance library services, support academic research, and improve the integration of ICT in higher education.

II. Literature Review

The integration of Information and Communication Technology (ICT) has significantly transformed academic libraries, enhancing information access, management, and dissemination (Gattagoni & Bhatt, 2024). Libraries have evolved into hybrid institutions utilizing digital tools and resources, which has increased user expectations and necessitated ongoing professional development for librarians (Keskar, 2025; Shivakumar,

2017). Challenges include adapting to digital systems and meeting the needs of students. Moreover, ICT impacts education and society, facilitating data-driven decision-making while also highlighting issues like digital inequality (Liu et al., 2025; Amin et al., 2024). The integration of ICT requires a balance between traditional library roles and new responsibilities in digital information management, ultimately shaping a more accessible yet complex information ecosystem (Lennerfors et al., 2015; Timotheou et al., 2022). Postgraduate students must develop enhanced digital literacy and adaptability to navigate this landscape effectively, addressing challenges such as information overload and equitable access (Gattagoni & Bhatt, 2024).

III. Objectives of study

- To assess awareness of ICT tools among PG students at GFGC Maski.
- To identify preferred information sources traditional and digital.
- To evaluate the role of ICT in shaping search strategies and retrieval habits.
- To understand user motivations, barriers, and satisfaction in the hybrid environment.

IV. Methodology

The study examines the information-seeking behavior of 130 postgraduate students at Government First Grade College, Maski, Karnataka, with a focus on the influence of Information and Communication Technology (ICT). It assesses students' awareness, preferences, usage patterns, and the difficulties they face in accessing academic information in a hybrid environment combining print and digital resources. Data was gathered through a structured questionnaire, and frequency distribution along with percentage analysis was used to interpret the findings, which shed light on students' search strategies and research outcomes despite resource constraints.

V. Data Analysis and Interpretation

5.1 Gender-wise Distribution of Respondents

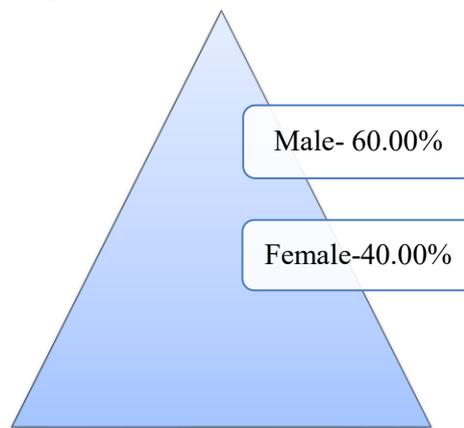


Figure 1: Gender

Figure 1 shows a gender distribution among 130 postgraduate respondents, with 60% male (78 respondents) and 40% female (52 respondents), resulting in a 3:2 ratio. This suggests a moderate gender imbalance, potentially influenced by enrollment trends or response rates at GFGC Maski, but both genders are sufficiently represented for analyzing information-seeking behavior.

5.2 Age Group-wise Distribution of Respondents

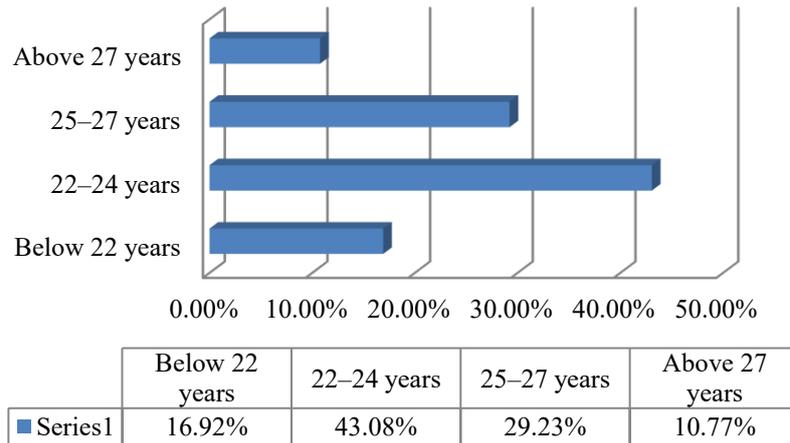


Figure 2: Age Group

Figure 2 Represents the age distribution of 130 postgraduate respondents, revealing that 43.08% are aged 22–24 years, 29.23% are aged 25–27 years, 16.92% are under 22 years, and 10.77% are over 27 years. This age concentration in the early to mid-twenties is typical for postgraduate students, affecting their academic engagement and behaviors related to digital technologies.

5.3 Stream-wise Distribution of Respondents

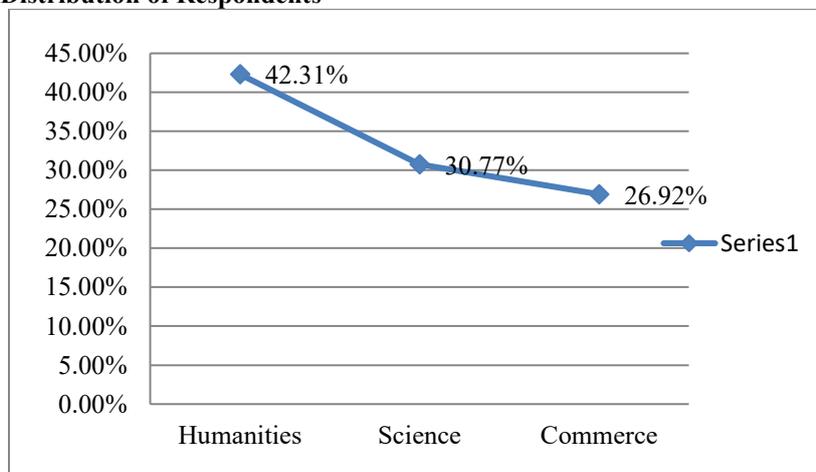


Figure 3: Stream

Figure 3 Respondents from the Humanities stream represent the largest group at 42.31%, followed by Science at 30.77% and Commerce at 26.92%. This diverse representation indicates different preferences for information usage, particularly in textual resources, and enhances understanding of ICT usage and hybrid information practices across disciplines.

5.4 Level of Importance of Information Sources

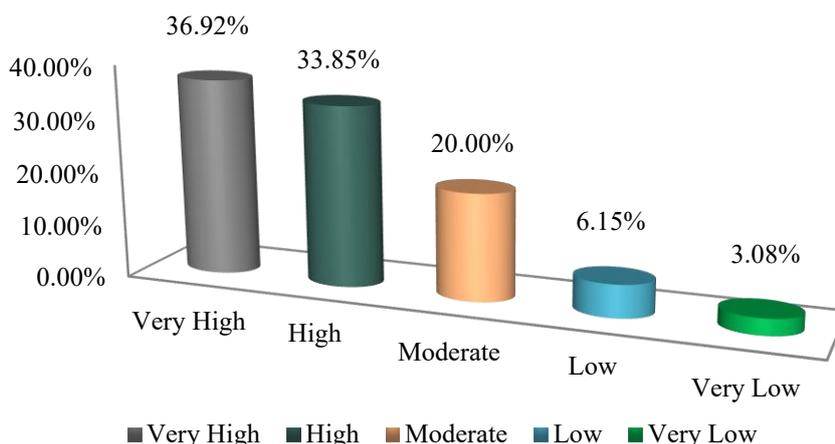


Figure 4: Importance of Printed Sources

Figure 4 show a strong preference for printed academic sources, with 70.77% rating them as Very High (36.92%) or High (33.85%). Only 20% rated their importance as moderately important, while 9.23% considered them Low or Very Low, indicating the sustained significance of printed materials for postgraduate students amidst the rise of ICT resources.

5.5 Importance of Non-Printed (ICT-Based) Sources for Academic Work

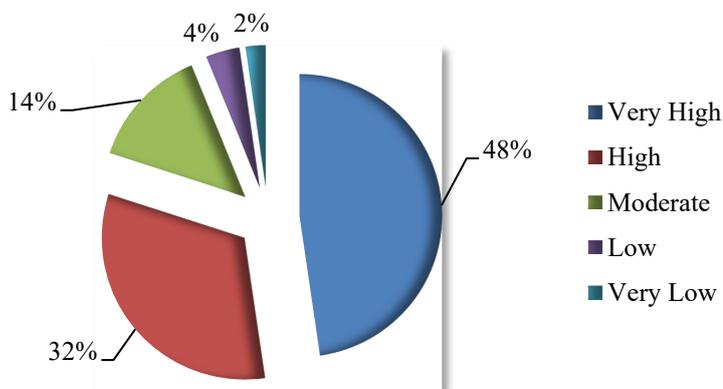


Figure 5: Non-Printed (ICT-Based) Sources

Figure 5 indicate that illustrates that 80% of respondents consider non-printed (ICT-based) sources as very high or high in importance for academic work, indicating strong acceptance among postgraduate students. This preference for ICT sources exceeds that for printed sources (70.77%), showcasing a shift towards digital resources for improved accessibility and convenience in information retrieval.

5.6 Purpose of Using Information

Table1: Purpose of Using Library Resources

| Purpose | No. of Respondents (n) | Percentage (%) |
|------------------------------------|------------------------|----------------|
| Assignments / Coursework | 31 | 23.85 |
| Research / Project Work | 26 | 20.00 |
| Seminar / Presentation Preparation | 16 | 12.31 |
| Updating Subject Knowledge | 37 | 28.46 |
| General Knowledge | 20 | 15.38 |

Table 1 shows that library resources are primarily used for updating subject knowledge (28.46%), followed by assignments and coursework (23.85%) and research or project work (20.00%). Additional purposes include preparation for seminars and presentations (12.31%) and enhancing general knowledge (15.38%). These findings indicate that the library functions as a multi-purpose academic resource, supporting both curricular requirements and overall knowledge development.

5.7 Awareness of ICT Facilities in the College Library

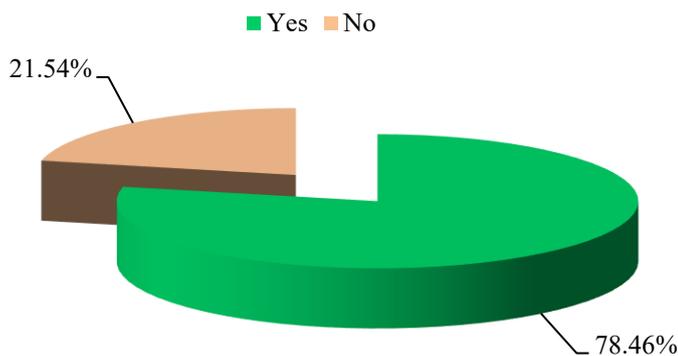


Figure 6: Awareness of ICT Facilities

Figure 6 shows that out of 130 surveyed respondents, 102 (78.46%) expressed agreement with the statement, while 28 (21.54%) disagreed. The findings indicate a strong majority in favor of the statement or behavior being assessed, reflecting substantial acceptance and engagement with the evaluated practice, service, or tool.

5.8 ICT Tools Frequently Used for Information Searching

Table 2: ICT Tool Usage

| ICT Tool | No. of Respondents (n) | Percentage (%) |
|----------------|------------------------|----------------|
| Internet | 39 | 30.00 |
| Search Engines | 32 | 24.62 |
| E-Papers | 12 | 9.23 |
| Databases | 27 | 20.77 |
| OPAC | 20 | 15.38 |

Table 2 shows that Respondents mainly seek information online (30.00%) and via search engines (24.62%), while formal ICT-based library resources like databases (20.77%) and OPAC (15.38%) are moderately used. E-papers are the least accessed (9.23%), highlighting a preference for general online tools and a need for greater awareness and training regarding formal library resources.

5.9 ICT Helps Retrieve Information Faster than Traditional Methods

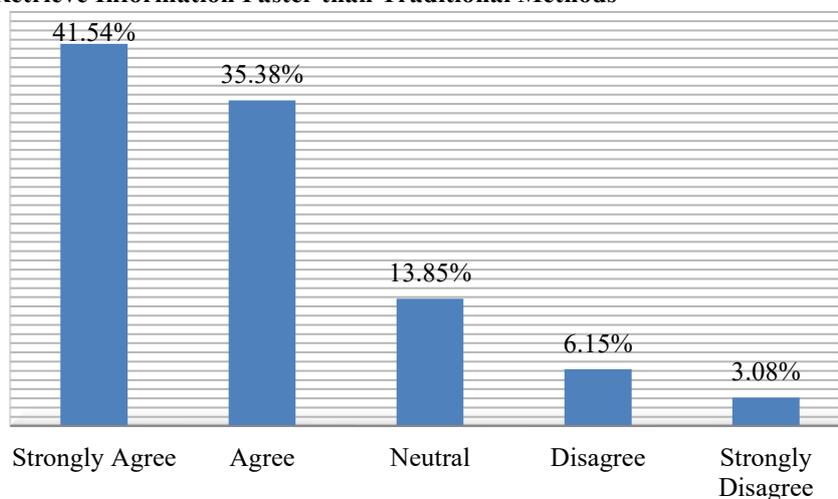


Figure 7: ICT Helps Retrieve Information Faster than Traditional

Figure 7 shows that out of 130 respondents, a majority (76.92%) had a positive perception, with 41.54% strongly agreeing and 35.38% agreeing with the statement. Additionally, 13.85% were neutral and 9.23% disagreed, indicating overall acceptance and satisfaction with the evaluated statement, service, or practice.

5.11 Problems Faced While Searching Information

Table 3: Problems Faced While Using Printed Sources

| Problem | No. of Respondents (n) | Percentage (%) |
|-----------------------|------------------------|----------------|
| Too much information | 23 | 18% |
| Lack of time | 33 | 25% |
| Limited availability | 27 | 21% |
| Lack of search skills | 34 | 26% |
| None | 13 | 10% |
| Total | 130 | 100% |

Table 3 significant of that out of 130 respondents, key challenges in accessing information are a lack of search skills (26%), lack of time (25%), and limited resource availability (21%). Furthermore, 18% reported information overload, while 10% faced no challenges. These findings suggest that skill deficits and time limitations greatly impede information access, emphasizing the necessity for focused training and better resource management.

5.12 Satisfaction and Suggestions

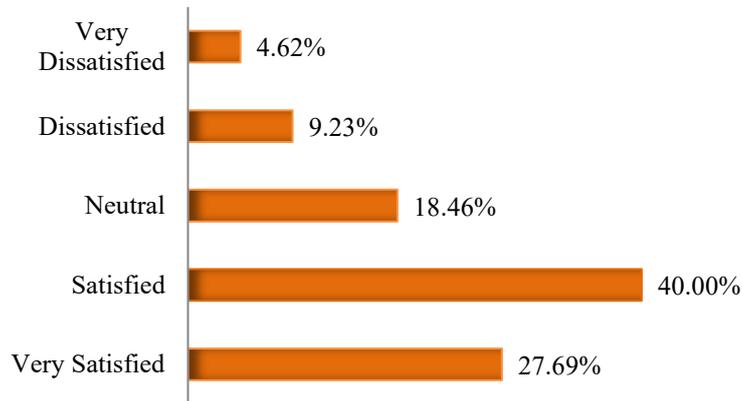


Figure 8 Satisfaction with Library and ICT Facilities

Figure 8 indicates that 67.69% of respondents were satisfied with the service, with 40.00% Satisfied and 27.69% Very Satisfied. Additionally, 18.46% were Neutral, and 13.85% expressed dissatisfaction (9.23% Dissatisfied and 4.62% Very Dissatisfied). The results indicate high satisfaction levels but also suggest areas for potential improvement.

5.13 Level of Importance of Different Printed and Non-Printed Documents (n = 130)

Table 4: Document Type Usage

| Document Type | Format | No. of Respondents (n) | Percentage (%) |
|---------------------------|-----------|------------------------|----------------|
| Textbooks | Print | 24 | 18.46 |
| Reference Books | Print | 19 | 14.62 |
| Journals / Periodicals | Print | 27 | 20.77 |
| Newspapers | Print | 18 | 13.85 |
| Magazines | Print | 22 | 16.92 |
| E-journals | Non-Print | 4 | 3.08 |
| Online Databases | Non-Print | 2 | 1.54 |
| Online Portals / Websites | Non-Print | 11 | 8.46 |
| E-mail / Listserv / FTP | Non-Print | 5 | 3.85 |

Table 4 indicates a clear preference for print materials, notably Journals/Periodicals (20.77%), Textbooks (18.46%), and Magazines (16.92%), while non-print resources like Online Portals/Websites (8.46%) and E-journals/Online Databases were utilized less frequently. This highlights the importance of print resources for information retrieval and the need for improved training on digital library resources.

5.14 Criteria Used by PG Students to Evaluate Information Sources (n = 130)

Table 5: Used by PG Students to Evaluate Information Sources

| Evaluation Criterion | Number of Respondents (n) | Percentage (%) |
|----------------------|---------------------------|----------------|
| Content | 32 | 24.62% |
| Author | 28 | 21.54% |
| Publisher | 40 | 30.77% |
| Language | 12 | 9.23% |
| Format | 8 | 6.15% |
| Date of Publication | 6 | 4.62% |
| Citation | 9 | 6.92% |
| Total | 130 | 100%* |

Table 5 significant of Respondents rank Publisher (30.77%) as the most important factor in evaluating information resources, followed by Content (24.62%) and Author (21.54%), highlighting a focus on credibility. In contrast, factors such as Language (9.23%), Citation (6.92%), Format (6.15%), and Publication Date (4.62%) are considered less significant, indicating a preference for trustworthiness over technical details.

VI. Discussion

- A majority of PG students (78.46%) at GFGC Maski are aware of the library’s ICT facilities, showing strong exposure to digital resources.
- The Internet (30%), search engines (24.62%), and databases (20.77%) are the most used ICT tools, while OPAC (15.38%) and E-Papers (9.23%) are less frequently used.
- Both print and digital resources are valued, with 70.77% rating printed sources as Very High/High in importance.
- Respondents prefer print materials, journals (20.77%), textbooks (18.46%), magazines (16.92%) E-resources are less favored: e-journals (3.08%), online databases (1.54%)
- Students primarily use library resources to update subject knowledge (28.46%), complete assignments (23.85%), and support research/project work (20%).
- Most respondents (76.92%) agree that ICT allows faster information retrieval than traditional methods.
- Content (36%) and publisher reputation (29%) are the main criteria for selecting materials, followed by author reputation (28%).
- Less importance was given to language (17%), publication date (13%), and citation (2–6.92%), indicating a focus on credibility and relevance.
- Information overload affected 18% of respondents, whereas 10% reported no major issues.
- About 18.46% were neutral, and 13.85% expressed dissatisfaction, indicating room for improvement.

VII. Suggestions

- Conduct workshops and tutorials to improve search skills and use of databases, OPAC, and e-journals.
- Expand access to e-resources and update digital collections regularly.
- Maintain essential print materials and develop hybrid print-digital collections.
- Extend library hours or provide remote access to digital resources.
- Train students to evaluate information using content, publisher, author, citation, date, and format.
- Collect feedback through surveys to improve library services and ICT support.

VIII. Conclusion

The study highlights that postgraduate students at Government First Grade College (GFGC) Maski use a hybrid information environment, balancing traditional print sources with digital resources. While ICT plays a crucial role in shaping their information-seeking behavior, with many students utilizing general online tools, their engagement with formal library ICT tools is limited. Traditional print resources remain vital, as students focus on credibility when selecting information. Challenges like limited search skills and resource availability indicate areas for improvement in digital literacy. The findings advocate for targeted training, expansion of digital collections, and continued professional development to enhance research outcomes and learning environments, emphasizing the need for an adaptable approach in utilizing both print and digital sources in higher education.

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