A Study On Perceptions Of College Students Towards Digital Libraries In Maharashtra

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Abstract
Technology has revolutionized many walks of life from business to governance, learning to workplaces. This research aimed to examine students' perceptions towards the digital library services at Visvesvaraya National Institute of Technology. A survey of 176 engineering post-grads was used to accomplish this. Random sampling technique was used. Primary data collected through structured questionnaires. The research showed that respondents are aware of and use digital collections. The report examined students' views on internet libraries and digital collections. The survey also examined students' perceptions of digital library pros and cons. The digital library system's applicability was also examined, with a focus on the prototype model's course material presentation. The study showed that digital libraries can improve student learning. Studying student perspectives helps determine the efficacy and relevance of digital library services in academic settings. This research clarifies the existing state of digital library usage and lays the groundwork for improving digital library infrastructure and services to meet the changing needs of college students.

Introduction

Libraries are the storehouses of knowledge, culture and practices of any society. They preserve the rich heritage of various fields. However, these old scripts get diminished in due course of time. Scanning them and creating digital books is worth for upcoming generations. Technology helps in this regard Chaurasia, A., & Singh, A. P. (2024). Many university libraries are offering digital services in response to the proliferation of online information resources. The goal of these services is to make more information resources available to students, researchers, and the whole university community through digital methods, increasing the value of what is already available and making it accessible whenever and wherever needed. The rise and evolution of the Internet and related Web technologies over the last decade has had far-reaching effects on library patrons' information needs and the methods by which libraries make their collections available. In an effort to better serve the academic and research community, university libraries are currently working to expand their collection and improve the quality of their services (Mahadik, 2020). Offering a digital library collection is one way. One way to make better use of resources is to make sure people know about the services that are available to them. For example, libraries have new technology that can make their services more efficient and effective.

1.1. The Digital Library System : An Overview

Circulation, cataloging, acquisitions, interlibrary loan, and serials control are some of the more mundane but necessary tasks that libraries initially automated with computers. Technology has kept evolving throughout the 1990s, and library workers sometimes find themselves unable to keep up with the pace of change. Libraries, particularly academic libraries, have also seen significant shifts in their information-gathering, organization, and dissemination practices since the advent of the Internet. Many different definitions of digital libraries have been put up, and opinions on the subject change with time. A digital library might signify various things to various individuals. Computer scientists define digital libraries as distributed text-based information systems or networked multimedia information systems; end users see digital libraries as an improved version of the World Wide Web (www) in terms of performance, organization, functionality, and usability; and librarians see digital libraries as just another kind of physical library. According to Borgman, the fact that there are two opposing theories about digital libraries encourages academics and industry professionals to debate the concept of a digital library in greater depth.

Academic libraries are always adapting their services and systems to keep up with the ever-changing digital technology. This is to guarantee that their products and services can satisfy the information demands of students. Libraries have reportedly altered their access policies in response to the proliferation of digital information resources and advances in information technology. Due to the rapid dissemination of knowledge and the ease of access to updated resources, patrons can benefit from cutting-edge information resources practically immediately upon their release. The digital library has emerged as a product of libraries' adoption of information technology, particularly in the academic setting. Electronic information resources are now available to patrons of many university libraries, allowing them to fulfil their information demands. Users' awareness and access to such collections and services are also crucial to the success of this endeavour (Sinha & Brar, 2024).

1.1.2 The Role of Digital Library in Learning and Research

 The ways in which data is saved, accessed, and retrieved have undergone tremendous transformations due to the digital revolution (Hemalatha & Mani, 2019). The development of digital libraries has had a profound effect on the field of education. Students can access information services at any time and from any location thanks to digital libraries. Particularly if active learning styles proliferate, this will be very appreciated. One of the main advantages of digital libraries is that students have online access to all of the materials, regardless of their physical location. This means that they can use the library's collection whenever and wherever they like, not only in the classroom or at home. In addition, there are a variety of search tools available in digital libraries that can be used to access the digital resources. If students need help interacting with information objects that are either directly or indirectly accessible in an electronic or digital format, they can turn to digital libraries for assistance. Academics and students now have the option of using digital libraries, which house reproductions of original works, to perform research from the comfort of their own homes, offices, or laboratories. In addition to allowing students to conduct research from anywhere, at any time, it also provides them with options that are not restricted by the hours of operation or the resources of any one physical library (Tammaro, 2024).

1.1.3. Importance of Digital Resources to Students Learning and Research

The use of digital libraries is on the rise in the academic learning community; according to Roes, these resources are widely recognized as valuable additions to online classrooms. Reason being, digital libraries have reduced the digital divide significantly while also delivering information to users, improving searching, collaboration, and sharing. DLs have revolutionized human interaction with data because, with an internet connection and the right device, users may access the desired information whenever and wherever they like. Furthermore, DLs have opened up new vistas for learning, particularly distant learning, in this regard. The fact that DLs store all of their materials digitally on a server rather than in a physical location is another perk compared to more conventional libraries. Assuming cheap computer memory remains available, DLs can always increase their storage capacity. Additionally intriguing is the fact that data stored in DLs can exist in geographically dispersed locations, eliminating the necessity for a 1:1 mapping between DLs and conventional libraries (Panwar et al., 2024). Also mentioned was the fact that the internet has grown in popularity since the 1990s, when graphical browsers and the World Wide Web were introduced. Many people now have access to the internet and use it for all sorts of things. Nowadays, students have more opportunities than ever to use the internet for all of their academic and research needs. There are many different kinds of websites that have been created to support various goals and objectives. Since the internet can quickly disseminate massive amounts of information to the public, libraries believed that it could expand the scope of their communication through their websites. Many modern universities have jumped on the

bandwagon by launching their own websites. The success or failure of colleges is expectedly influenced by their websites. This is because websites nowadays serve as platforms for selling programs to the general public. Consequently, students could evaluate the digital library collections and services offered by their respective colleges by looking at their library websites.

1.2. Problem Statement

Providing people with accessible and usable information services is the primary goal of libraries. The academic library is a good example of a place that provides access to digital information resources. Students now have access to a treasure trove of electronic information resources through their school libraries. But whether or not students are familiar with these services and if they are using them effectively is still up in the air. The amount of literature on digital libraries has grown, but the majority of it is concerned with methodological details and how people really use these resources. Finding out what criteria should be used for review is important for making digital library designs better for both current and future users. The process of determining assessment criteria has gotten very little attention. Researchers, not end users, now choose evaluation criteria. Researchers have not used users' digital libraries in many studies.

1.3 Objectives of The Study

- • To examine the perceptions of college students towards digital libraries in Maharashtra
- • To investigate accessibility of digital library resources from college students point of view
- • To ascertain the data security concerns raised by college students when using digital libraries
- • To demonstrate the user-friendliness of college students towards digital libraries services (registration, book exchange, communication etc.)

1.3. Hypothesis of the Study

Hypothesis 1 - Maharashtra college students' opinions on digital libraries will differ; some will see them as helpful tools for study and learning, while others could think they're less useful or handy than traditional library materials.

Hypothesis 2 - When using digital library resources, Maharashtra college students will experience differing degrees of accessibility depending on a number of conditions, including internet connectivity, ease of navigation, and availability of requested items.

Hypothesis 3 - When utilizing digital library resources, college students in Maharashtra will voice worries about data security. Some are wary about the privacy and confidentiality of their academic and personal information.

Hypothesis 4 - When it comes to the registration procedure for digital libraries, Maharashtra college students may have varying experiences. While some may find it simple and easy to use, others may run into issues like complicated registration criteria or technological difficulties.

2. LITERATURE REVIEW

Kulkarni et al.'s (2023) included a thorough synopsis of previous studies that examined the use of collaborative technology in Maharashtra academic libraries. The authors started by stressing how important collaborative technologies are becoming in academic environments, namely how they help library users and professionals communicate and share information more effectively. Online resources, virtual learning environments, and remote access to information were some of the topics covered as they reflected on the changing face of library services in the digital era. Academic libraries frequently use collaborative technology, such as digital repositories, social media platforms, and integrated library systems, as noted by Kulkarni et al. citing prior research. They looked at the pros and cons of new technologies, including how they could increase efficiency and accessibility while also addressing worries about security, privacy, and the digital divide. The literature study also highlighted the importance of user-centered approaches to technology deployment and service delivery by delving into the relevance of users' views and attitudes towards collaborative technologies in library environments. The purpose of this review was to put the study's emphasis on college librarians' views on the use of collaborative technology in their work in Maharashtra into context by synthesising important results from prior research.

Kumar's (2021) aimed to investigate the perspectives of school and college students in Andhra Pradesh on digital academic education during the COVID-19 epidemic. At the outset, the author provided background on the pandemic's unprecedented demand for online education, discussing the pros and cons of this new approach from the perspective of both teachers and students. In his review of the research, Kumar looked at how online learning environments affected

students' motivation, achievement, and mental health. Access to technology, internet connectivity, digital literacy, and pedagogical efficacy are some of the characteristics that were examined in the review that impact students' opinions of digital education. Kumar went on to talk about how factors like institutional backing, teacher-student interactions, and flexible teaching methods influence how students feel about their time spent learning online. In addition, taking into account variables like age, educational level, and socioeconomic background, the literature study compared the effects of online education on high school and college students. The review laid the groundwork for the empirical investigation into the perceptions of school and college students in Andhra Pradesh by synthesising important findings from prior research; this investigation yielded valuable insights into the difficulties and potential benefits of online academic education during the COVID-19 pandemic.

Chaurasia, A., & Singh, A. P. (2024) emphasized on the knowledge, beliefs, and practices of librarians working for public and nonprofit institutions associated with various colleges and university libraries about the utilization of ICT offered a thorough analysis of pertinent field research. The writers started out by talking about how information and communication technology (ICT) is becoming more important in library settings, specifically in the areas of user services, collection management, and information dissemination. Drawing on prior research, HN and KT investigated how librarians' responsibilities are changing in the digital era, drawing attention to the fact that librarians nowadays must be proficient in a wide range of information and communication technology (ICT) solutions. Information retrieval, database management, digital preservation, and online communication are just a few of the many specialized skills that they covered. The literature review also looked at librarians' perspectives on the adoption of ICT, specifically at the elements that make them either open to or resistant to technological change. Organizational buy-in, access to training, perceived value, and personal preparedness for technological integration are all potential contributors. Contributing to a better understanding of information and communication technology (ICT) usage in academic library settings, the review synthesised important results from previous literature to pave the way for an empirical investigation into the attitudes and competencies of government librarians and first-year colleges affiliated with the University of Mysore.

Ahire's (2019) PhD dissertation included a critical review of the literature on the topic of information and communication technology (ICT) literacy among college library staff connected with the University of Pune. In her opening remarks, Ahire set the stage for the increasing importance of information and communication technology (ICT) in the field of libraries, highlighting the critical role that ICT plays in updating library services, expanding access to information, and bettering user experiences. The literature analysis drew on previous research to analyze how librarians' responsibilities have changed in light of new technologies, drawing attention to the importance of librarians' ongoing professional development and their ability to adjust to new information and communication technology (ICT) platforms and tools. The significance of librarians' ability to utilize ICT effectively for information organization, retrieval, and dissemination was highlighted by Ahire's exploration of multiple aspects of ICT literacy, including as software application competency, digital resource management, and online communication. The review also explored how factors including educational background, professional training, organizational support, and individual motivation impact information and communication technology literacy among library personnel. The literature review provided the framework for Ahire's empirical study of the information and communication technology literacy levels of library staff affiliated with the University of Pune, adding important new information to the ongoing discussion about the integration of ICT in academic library settings by synthesising important results from earlier studies.

3. RESEARCH METHODOLOGY

3.1. **Research Design:** Examining how college students in Western Maharashtra see digital libraries, this study employs a quantitative research strategy. Accessibility, data security, registration procedures, and user-friendliness are some of the areas that will be studied by collecting structured data using questionnaires or surveys. Decisions in educational institutions and library administration can be better informed by the empirical facts that this study attempts to provide. Digital library usage and its implications for educational practices and policy can be better understood with the use of quantitative methodologies, which guarantee robust and generalizable conclusions.

3.2. **Sampling Strategy:** College students from the Western Maharashtra districts of Sangli, Kolhapur, Satara, and Solapur will make up the target population. We targeted student participants from several universities in the region using a convenience sampling method. To guarantee a representative sample from the target market, 176 college students, comprising both male and female respondents, will be chosen for the sample.

3.3. **Data Collection Technique**

- **Primary Data Collection:** Primary data on how people in Western Maharashtra perceive and use digital libraries will be collected through a standardized questionnaire. Questions on demographics (gender, age, level of education, etc.) and dependent variables (what the survey participants have learned) will also be included of the survey. Depending on participant preferences and practical considerations, data collecting may use online surveys or in-person surveys. Direct involvement and real-time data collecting are guaranteed by this strategy.
- **Secondary Data Collection:** In order to round out primary data obtained from surveys, secondary data sources like pre-existing literature and reports can be utilized. In order to correctly comprehend the results of the primary data, these sources must be consulted for their background and context. By drawing on prior research and incorporating fresh empirical evidence, secondary data analysis places study results in the larger academic conversation.

3.4. FACTORS:

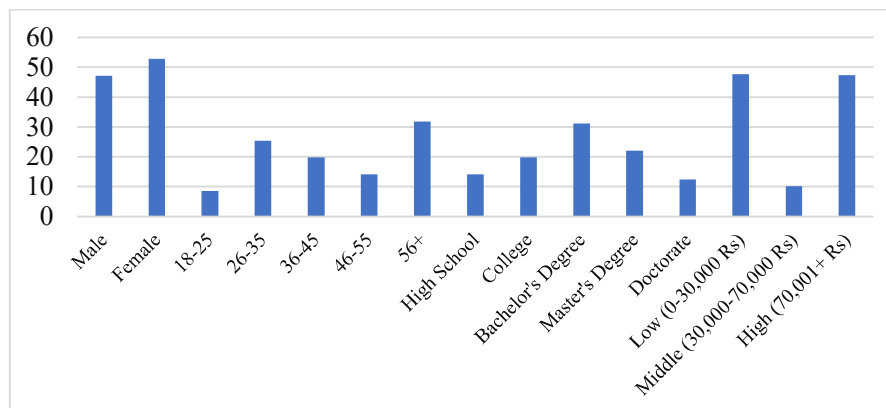**3.4.1. Independent Variable:** Digital Libraries in College

Dependent Variable: Accessibility, Data Security, Registration Process, Downloading, Sharing Facility, Self-Help Tools, Internet Speed, Mobile Access, User-Friendliness

Table 1: Demographic Profiles

Variable	Category	Frequency (n)	Percentage (%)
Gender	Male	83	47.15
	Female	93	52.84
Age	18-25	15	8.52
	26-35	45	25.5
	36-45	35	19.8
	46-55	25	14.2
	56+	56	31.8
Education Level	High School	25	14.2
	College	35	19.8
	Bachelor's Degree	55	31.2
	Master's Degree	39	22.1
	Doctorate	22	12.5
Family Income	Low (0-30,000 Rs)	84	47.7
	Middle (30,000-70,000 Rs)	18	10.2
	High (70,001+ Rs)	74	47.4

4. DATA ANALYSIS & FINDINGS

The information provides a profile of the people who took part in the survey about college students' views on digital libraries in Maharashtra. Of the total sample size, 52.84% were female and 47.15% were male; this indicates that females made up the majority of respondents. Different age groups made up different proportions of the total respondents; the oldest group, 56 and up, accounted for 31.8% of the total, followed by those between 26 and 35, who made up 25.5%. Among the many different types of degrees held by respondents, the largest percentage had either a Bachelor's degree (31.2%) or a Master's degree (22.1%). It is worth mentioning that a considerable number of participants stated that they have either finished high school (14.2%) or college (19.8%) degrees. The majority of respondents (47.7%) indicated low-income levels (defined as earning 0-30,000 Rs per annum), while nearly half (47.4%) reported high-income levels (earning 70,001 Rs or more per annum). A lower share of the sample, at 10.2%, was comprised of individuals with middle-income earnings. To understand how college students in Maharashtra feel about digital libraries, it helps to have a look at the demographic profile of respondents, which includes a wide range of ages, genders, educational attainment levels, and income brackets.

Figure 1: Graphical Representation on percentage of Category

Table 2: Model outline of factor

Model Summary				
Model	**R**	**R Square**	**Adjusted R Square**	**Std. Error of the Estimate**
1	.755[a]	.590	.565	.88085
a. Predictors: (Constant) Level of accessibility in digital libraries, Perceptions towards digital libraries				

It has been determined through the model summary that the predictor variables are able to provide an explanation for 59% of the perceptions that college students in Maharashtra have toward digital libraries. The modified R Square value is 0.565, which indicates that the model accommodates the data without being excessively overfit. It is important to note that the estimate has a standard error of 0.88085, which indicates that the predictor factors do not adequately account for the variability in the perceptions of the students. As a result of the larger R Square value and the lower standard error of the estimate, the predictive power and goodness-of-fit of the model are better reflected. This indicates that the predictor variables are beneficial in explaining these impressions.

Table 3: ANOVA summary

ANOVA[a]						
	Model	**Sum of Squares**	**df**	**Mean Square**	**F**	**Sig.**
1	Regression	230.055	1	57.425	69.145	.001[b]
	Residual	147.220	174	.801		
	Total	379.140	175			
a. Dependent Variable: College students in Maharashtra						
b. Predictors: (Constant)						

Level of accessibility in digital libraries, Perceptions towards digital libraries

The results of the analysis of variance (ANOVA) suggest that there is a significant effect of predictors on the attitudes that college students in Maharashtra have towards digital libraries. As seen by the big F-statistic of 69.145 and the accompanying p-value of.001, the regression model is responsible for a significant percentage of the variance in these perceptions. This is proven by the fact that the probability value is.001. The fact that this is the case shows that the predictors of the model together have a considerable impact on explaining the variation that is observed in the views of this group of students. To be more specific, the predictor variables, which include the degree of accessibility in digital libraries, exhibit a relationship that is statistically significant with the perceptions of the students. The amount of variance in perceptions that can be attributed to the predictors is represented by the sum of squares as 230.055, which is the value for the regression. When compared to this, the residual sum of squares, which represents the variance that cannot be explained, is 147.220. In general, these findings indicate that the degree of accessibility in digital libraries plays a significant part in determining how college students in Maharashtra feel about digital libraries. This highlights the significance of providing students with digital resources that are easily accessible in order to improve their experiences and level of contentment with these platforms.

Table 4: Coefficient of Determination of the Variable

Coefficients'						
Model		**Unstandardized Coefficients**		**Standardized Coefficients**	**t**	**Sig.**
		B	**Std. Error**	**Beta**		
1	(Constant)	-.715	.310	-.635	-6.502	.095
	Accessibility	-.060	.010	-.060	-2.775	.305
	Cost-Effectiveness	.365	.152	.272	5.491	.075
	User Interface	.150	.004	.115	3.525	.175
	Data Retrieval	.0.250	0.150	0.235	0.225	0.310
	Integration with other platforms	0.305	0.015	0.210	.245	0.170
	User friendliness	0.201	0.35	0.	0.285	0.110
a. Dependent Variable: College students in Maharashtra						

A regression analysis was carried out in order to gain a better understanding of the factors that influence the views of digital libraries held by college students in the state of Maharashtra. According to the findings of the study, the opinions of digital libraries held by college students were significantly influenced by considerations such as cost-effectiveness and user interface design. Nevertheless, accessibility, data retrieval, interaction with other platforms, and user-friendliness did not have a major impact on the outcome. The importance of the contribution that each independent variable made to explaining the variance in the dependent variable was evaluated with the help of the t-statistic and the sig-values. According to the findings, the impressions that college students in Maharashtra have of digital libraries may be strongly impacted by factors such as cost-effectiveness and the design of user interface environments. Accessibility, data retrieval, connection with other platforms, and user-friendliness are some of the additional aspects that might not have a substantial impact.

Table 5: A Correlation Matrix between dependent variables

Correlation				
		User Interface	**Data Retrieval**	**Integration with other platforms**
User Interface	Pearson Correlation	1	.785**	.755**
	Sig. (2-tailed)		0.02	0
	N	176	176	176
Data Retrieval	Pearson Correlation	.776**	1	.800**
	Sig. (2-tailed)	0		0
	N	176	176	176
Integration with other platforms	Pearson Correlation	.794**	.794**	1
	Sig. (2-tailed)	0.01	0	
	N	176	176	176

User Interface, Data Retrieval, and Integration with other platforms are the three important factors that are analyzed in the correlation table, which displays the Pearson correlation coefficients between these variables. Within this correlation matrix, each variable is compared with itself, resulting in a perfect positive correlation coefficient of 1. Notable discoveries are made when one investigates the correlations that exist between the variables. With correlation coefficients of around 0.785 and 0.755, respectively, User Interface exhibits a substantial positive association with both Data Retrieval and Integration with other platforms. Both of these correlations are statistically significant at a level of $p < 0.05$. The same can be said for Data Retrieval, which demonstrates a strong positive association with User Interface and Integration with other platforms, with correlation values of roughly 0.776 and 0.800, respectively, which are both statistically significant. Similar to how integration with other platforms exhibits a high positive association with User Interface and Data Retrieval, the correlation coefficients for both of these aspects are roughly 0.794. It is possible that enhancements or improvements in one component, such as the User Interface, may coincide with improvements in Data Retrieval and Integration with other platforms, as suggested by these findings, which highlight the linked nature of various variables.

5. RESULTS

Through the utilization of a quantitative research technique, the research methodology that was utilized in this study aimed to gain a knowledge of the perceptions that college students in Western Maharashtra had regarding digital libraries. Several elements, including accessibility, data security, registration procedures, and user-friendliness, were investigated through the use of structured data gathering methods, such as questionnaires or surveys. In order to better inform decisions made by educational institutions and library administration, the objective was to give empirical evidence. Additionally, the goal was to get an understanding of the consequences that the utilization of digital libraries has for educational practices and policy.

The selection of participants from a number of universities in the area was accomplished through the use of a convenience sampling technique. The end result was a sample size of 176 college students, which included both male and female respondents. The demographic profile of the participants revealed a wide range of ages, genders, levels of educational attainment, and income categories, which provided a comprehensive overview of the group that was being targeted.

Secondary data sources, such as pre-existing literature and reports, were used to augment the primary data collection that was carried out through the use of standardized questionnaires. This was done in order to provide context and background information regarding the findings. The purpose of the data analysis was to investigate the relationship between independent variables (such as digital libraries in colleges) and dependent variables (such as accessibility, data security, and user-friendliness) by means of regression analysis and correlation matrices.

According to the findings, the predictor variables were able to explain 59% of the attitudes that college students had toward digital libraries. The results also showed that there were substantial effects detected in aspects such as the cost-effectiveness and the user interface design of the products. On the other hand, other aspects like as accessibility, data retrieval, and integration with other platforms did not have a significant impact. The correlation analysis revealed significant positive connections between variables such as user interface, data retrieval, and interaction with other platforms, indicating that these features are connected to one another in some way.

Overall, the findings highlighted the significance of offering digital resources that are easily available in order to enhance the experiences that college students have with digital libraries and the levels of pleasure that they have with them. By gaining an understanding of the elements that influence people's views of digital libraries, educational institutions and policymakers are able to make educated decisions that will improve the efficiency and usability of these platforms.

6. CONCLUSION

The survey on college students' perceptions of digital libraries in Maharashtra offers valuable insights into the usage and implications of digital libraries. The survey's demographic profile includes diverse individuals from different genders, age groups, educational levels, and income brackets. Factors influencing students' perceptions include accessibility, cost-effectiveness, and user interface design. However, data retrieval, integration with other platforms, and user-friendliness did not significantly impact students' perceptions. The correlation matrix revealed strong positive associations between user interface, data retrieval, and integration with other platforms, suggesting interconnectedness among these variables. Enhancements in one component, such as user interface design, may coincide with improvements in data retrieval and integration with other platforms, suggesting the potential for holistic enhancements to digital library systems. The findings suggest that improving accessibility, cost-effectiveness, and user interface design could significantly improve college students' perceptions and experiences with digital libraries in Maharashtra.

6.1. Recommendations

Enhance User Interface Design: Emphasizing the importance of user interface design in shaping students' impressions of digital libraries, it is suggested that these platforms be enhanced visually, with an emphasis on making navigation easier and providing a better overall user experience. If you want to find and fix usability problems, you should put money into user-centered design concepts and usability testing.

Ensure Cost-Effectiveness: It is important to make digital resources inexpensive for students since cost-effectiveness is a major element impacting their perceptions of digital libraries. Students can save money without sacrificing access to high-quality content by taking advantage of institutional subscriptions, negotiating bulk licensing arrangements, and researching open-access possibilities.

Optimize Accessibility: Even though accessibility didn't show much of an effect in the regression study, it's still something to think about if you want to make sure that everyone can use the digital library resources. Enhancing the accessibility of digital libraries can be achieved by measures such as delivering user support for accessibility difficulties, improving interoperability with assistive devices, and providing alternative formats for information.

Improve Data Retrieval Capabilities: It is critical to guarantee good and efficient search and retrieval capabilities inside digital library systems, even when data retrieval did not demonstrate a significant impact on students' perspectives. Users can have an easier time finding and retrieving relevant content with the help of improved search algorithms, enhanced metadata, and tailored recommendation systems.

Facilitate Integration with Other Platforms: Interoperability and smooth integration with current educational technology and learning management systems are crucial, since they are strongly correlated with user interface and data retrieval, as

well as with integration with other platforms. In order to improve the user experience and make integration easier, it is recommended to develop application programming interfaces (APIs), support interoperable standards, and encourage partnerships with other digital platforms.

Prioritize User-Friendly Features: The importance of making digital library platforms easy to use and adopt by college students cannot be overstated, even though user-friendliness did not demonstrate a significant impact in the regression analysis. A favorable user experience and active engagement with digital library resources can be achieved through the incorporation of interactive features, clear instructions, and straightforward navigation.

REFERENCES

- Ahire, S. (2019). *Information and communication technology (ICT) literact among library professionals of college libraries affiliated to university of Pune: A survey* (Doctoral dissertation, Tilak Maharashtra Vidyapeeth).

- Bajirao, H. S. (2023). Collection Development and Management of Electronic Resources in Un Aided Engineering College Libraries in Maharashtra an Analytical Study.

- Chaurasia, A., & Singh, A. P. (2024). Navigating the Narrative: Unveiling the Journey of Public Libraries in India Through Challenges and Opportunities. *Public Library Quarterly*, 1-19.

- Dattrao, T. K. (2023). Impact of Information Technology in Library Management with Special Reference to College Libraries under SRTM University Nanded.

- Gohain, R. R. (2020). Exploring users' experiences with digital information services in the Law College libraries affiliated to University of Mumbai, Maharashtra. *Library Philosophy and Practice*, 1-15.

- Hemalatha, R. K. S., & Mani, T. T. (2019). Usage of Electronic Resources in Science Subjects by the Madras University Library System. *Indian Journal of Information Sources and Services*, *9*(1), 35-39.

- John, M. P., & Balasubramanian, P. A Study on User Attitude towards Library Facilities and Services with Special Reference to MG University, Kerala. *Indian Journal of Information Science and Services*, 10.

- Karve, B. M. Uses Of Digital Resources and Services By Library Users In SVKM's NMIMS, Deemed To Be University's Central Library: An Evaluative Study.

- Kulkarni, A. M., Pandiyan, M., Rajopadhye, M. S., & Bhawal, S. B. (2023). Application of Collaborative Technologies in Academic Libraries: Perception of College Librarians in Maharashtra. *American Journal of Information Science and Technology*, *7*(3), 135-144.

- Kumar, K. (2021). Digital Academic Education during Covid-19 Pandemic–Perception of College and School students in Andhra Pradesh. *Читалиште*, *20*(39), 3-24.

- Mahadik, A. P. (2020). *Digital literacy among users in law institute libraries in Pune a study* (Doctoral dissertation, Tilak Maharashtra Vidyapeeth).

- Matta, P. R. S., & Rao, B. P. (2023). Awareness and Utilization of Library Resources and Services by the Students of Sri Sathya Sai Institute of Higher Learning, Anantapur Campus-A Study.

- Mistry, P. (2021). *Usage, Opinions and Problems of Web-Based Learning by Undergraduate Students of the Maharaja Sayajirao University of Baroda* (Doctoral dissertation, Maharaja Sayajirao University of Baroda (India)).

- Nagappa, H. H., & KT, S. K. (2020). A study of Competencies and Attitude in use of ICT among Librarians of Govt. and Aided First Grade Colleges affiliated to University of Mysore.

- Panwar, M., Kumar, P., Garg, R. K., Kumar, P., & Aggarwal, V. (2024). Students' satisfaction from online learning: structural equation modelling analysis based on students' perception in higher educational institutions in India. *International Journal of Education Economics and Development*, *15*(1-2), 267-284.

- PATIL, D. T. M. (2020). *Effective Use Of Information Technology In University Libraries*. Ashok Yakkaldevi.

- Pawar, M. H. B. (2023). User Perceptions of College Library Web Portal: A Survey. *Journal of Research Administration*, *5*(2), 2958-2972.

- Sinha, P., & Brar, K. S. (2024). Awareness and Perception of Students Toward Execution of Internet of Things in Library Services: A study of Indian Institute Technologies of Northern India. *Open Information Science*, *8*(1), 20220167.

- Suresh, D. D. (2019). Open Distance Learning and Digital Libraries. *Available at SSRN 3768219*.

- Swamy, M. P., & Rao, B. P. (2023). Awareness and Utilization of Library Resources and Services by the Students of Sri Sathya Sai Institute of Higher Learning, Anantapur Campus: A Study. *Library Philosophy & Practice*.

- Tammaro, A. M. (2024). Digital libraries as sociotechnical systems. *Digital Library Perspectives*, *40*(1), 1-3.

- Togam, M. B., & Jadhav, P. B. (2021). Use and Awareness of Open Access Legal Information Resources by the Law College Students in Western Maharashtra: An Empirical Study in India.

- Varma, A. V. (2023). Perception and Awareness Towards Usage of E-Books (A Study with Reference to Students in Thane City). *Perception*, *4*(3).