

Awareness and Utilization of ICT Initiatives of Ministry of Education, Government of India by Users of Tumkur University Library: A Case Study

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Abstract:- This pilot study aims to explore the awareness and utilization of ICT (Information and Communication Technology) initiatives of the Ministry of Education, Government of India, by the users of Tumkur University Library in Karnataka, India. The study will focus on identifying the level of awareness and usage of various ICT tools and resources provided by the Ministry of Education, such as e-ShodhSindhu, National Digital Library of India (NDLI), SWAYAM, and others. The study will also investigate the challenges faced by the library users in accessing and utilizing these resources, and their suggestions for improving the accessibility and usage of ICT tools in the library. The findings of this study will provide insights for improving the quality and effectiveness of the library services, and enhancing the utilization of ICT initiatives of the Ministry of Education, Government of India.

Keywords:- *ICT Initiatives, Ministry of Education, Government of India, Tumkur University.*

I. INTRODUCTION

Information and Communication Technology (ICT) has grown everywhere in all facets of human life in the twenty-first century. The current situation calls for processing and improving ICT knowledge. These days, ICT is the base of the Indian educational system. Today's highly competitive world accepts ICT as an essential tool for education. The Indian government recognises the significance and necessity of digital literacy and has taken steps in this area. Higher education institutions are accountable for producing knowledgeable and skilled citizens. ICT can be utilised in conversation, questioning, arguing, exchanging data, analysing, searching, gathering, organising, and accessing online information in real life. Thus, ICT awareness must be a frequent aspect in higher education institutions. The present study is aimed at examining the level of Awareness and Utilization of ICT Initiatives of Ministry of Education, Government of India by the Tumkur University Library Users, The major objectives of the study were to find out the familiarity of faculties, research scholars and PG students with the ICT Initiatives of Ministry of Education, Government of India and to know the purpose and preference of use of various

ICT Initiatives of Ministry of Education, Government of India. [1]

II. TUMKUR UNIVERSITY

Tumkur University was established in 2004 by the Government of Karnataka to promote higher education and research in the Tumakuru region. The university has four faculties - Arts, Science & Technology, Commerce & Management, and Education - and offers undergraduate, postgraduate, and doctoral programs in various disciplines, including humanities, social sciences, science, technology, commerce, and management. The university has several affiliated colleges spread across Tumakuru and its neighboring districts. The university is committed to providing quality education and research opportunities to its students and fostering their holistic development. The university also promotes community engagement and social responsibility through various outreach programs and initiatives.

- *Tumkur University library* is spread across two floors and houses a vast collection of books, journals, theses, dissertations, and other reference materials related to various academic disciplines. The library provides access to various online databases, e-books, e-journals, and other electronic resources to support the teaching, learning, and research activities of the university. The library also offers various services such as photocopying, printing, scanning, and inter-library loan services. The library has a dedicated team of professionals who assist the library users in accessing the resources and provide guidance in their research and learning activities. [2]

III. REVIEW OF LITERATURE

➤ *Kumar, S., Saini, A., Kumar, V., & Kumar, S. (2023)*

Reviewed the integration and Expansion of ICT-based Initiatives in the Indian Higher Education System. this review chapter examines the role of ICT in higher education. This chapter addressed how ICT may promote and revolutionize higher education in India through new government initiatives. Furthermore, the chapter addressed the issues and challenges associated with the use of ICT for educational purposes.[3]

➤ *Sibi, M. S., Gohel, G., & Dhane, M. M. (2023)*

Conducted a research study on Awareness and motivation in Adopting e-learning Through SWAYAM MOOCS-courses by graduate and postgraduate students. This study found favourable impression indicators for both teachers and students. The findings indicate that SWAYAM is a beneficial tool for staying current on developments in the technology and education sectors. Long-term learning outcomes from this platform will be favourable. Practical Implications: The research will serve as a blueprint for developing policies that take into consideration the perceptions of both instructors and students on the beneficial usage of SWAYAM by examining the perception-forming elements. Social Implications: The research demonstrates a brand-new, constructive social behaviour that instructors and students are modelling towards SWAYAM-based blended learning possibilities. In these trying circumstances, SWAYAM might present itself as a very fruitful educational option. Originality and Value: One of the most crucial factors to evaluate for both instructors and students, particularly for online learning systems like SWAYAM, is perception.[4]

➤ *Oseghale, O. (2023)*

Conducted a study on Digital information literacy skills and the use of electronic resources by humanities graduate students at Kenneth Dike Library, University of Ibadan, Nigeria. This study shows that Humanities graduate students at the University of Ibadan possessed a high level of DIL skills in respect of digital devices usage, web-based tasks, information finding, and evaluation, but low in e-resources utilization. This study identified inadequate knowledge of e-resources availability, irregular internet access, inadequate training on e-resources utilization, inadequate staff assistance, lack of continuity in e-resources subscription, and paucity of local contents in the e-resources as main challenges encountered by graduate students in the use of e-resources. To ensure that those who can most benefit from e-resources utilization are not further marginalized, this study recommends that active steps should be taken to increase e-resources awareness, regular internet access, training/support, continuity of e-resources subscription and increased local content so that all may benefit from the opportunities of the information age. [5]

➤ *Adamu, A., & Adekunle, A. J. A. Y. I. (2023)*

Conducted a survey on the Evaluation of ICT Facilities and Use by Patrons of Kenyatta University Post-Modern Library, Kenya. The study revealed that computers, printers, the internet, and photocopying machines, among others, are the available ICT facilities in the library. The finding also indicates that the available facilities are used for scanning, photocopying, surfing the internet, and researching. The study recommends that the library should improve internet connectivity by increasing bandwidth. The library should improve on training the users on ICT skills to enhance the use of ICT facilities in the library; the Library should seek funds to enable it to acquire more ICT facilities.

IV. OBJECTIVES

The following research objectives were established to examine the awareness and use of ICT initiatives of the Ministry of Education among Tumkur University Library users.

- To understand the level of awareness and use of ICT initiatives of Ministry of Education among the Users of Tumkur University Library.
- To assess the purpose of utilisation various digital resources and services by the uses of Tumkur University Library
- To know the Satisfactory features of access to Resources and services from ICT initiatives of the Ministry of Education, Govt. of India
- To examine the problems faced by the users in access to digital resources and services in the Tumkur University Library.
- To inspect the methods Preferred to conduct user education programmes to understand the various ICT initiatives of Ministry of Education, Govt. of India by University Library

V. METHODOLOGY & SCOPE

The present study adopted the survey method. Structured questionnaires were distributed randomly among the P.G. students, Research, Scholars, & Faculty members of postgraduate departments located in the Tumkur University campus, Tumakur. & online questionnaire was prepared in the Google form and distributed through WhatsApp groups, email, forums Tumkur University etc. The study population 300 questionnaires were distributed, and 275 filled questionnaires were received and the same has been recorded in M.S. Excel for data analysis.

VI. ANALYSIS AND INTERPRETATION OF DATA

Data collected through online questionnaires were analysed using the tabulated frequency count and percentage. The findings were presented with each table.

Table 1 Demography in Formation of the Respondents:

Demography information		(n-275)	
		Count's	%
Gender	Male	135	49.09
	Female	140	50.90
Category	Students	120	43.63
	Research Scholar	105	38.18
	Faculties	45	16.36
Geographical Background	Rural	210	76.36
	Urban	50	18.18
	Semi Urban	15	5.45

➤ Demographic Characteristics of Respondents:

The data summarised in Table 1 demonstrates the demographic characteristics of respondents. It shows that out of 275 respondents, 49.09 % are male respondents, 50.90% are female respondents, and 43.63% of PG Students, 38.18% of Research Scholars, 16.36% of faculties responded, and 76.36% of respondents are from Rural backgrounds, 18.18% of respondents are urban, and only 5.45% of respondents are semi-urban in the study.

Table 2 Awareness & Use of the ICT Initiatives by the Ministry of Education, Government of India (n275)

S. No.	Name of the MoE Govt. of India ICT learning initiatives	Aware	Use	Not aware
1.	SWAYAM : UGC MOOCs (Online Courses)	180(65.45%)	80(29.09%)	95(34.54%)
2.	Swayam Prabha: Free DTH channel for Education	162(58.90%)	40(14.54%)	113(41.09%)
3.	National Digital Library of India (NDLI)	182(66.18%)	86(31.27%)	93(33.81%)
4.	Virtual Labs	52 (18.90%)	10 (3.63%)	223(81.09%)
5.	A-VIEW: Amrita Virtual Interactive e-learning World	48(17.45%)	8 (2.90%)	227(82.54%)
6.	e-Yantra: Engineering a Better Tomorrow	20(7.27%)	04(1.45%)	255(92.72%)
7.	D'source(e-Kalpa): Digital learning Environment for Design India	18 (6.54%)	05(1.81%)	253(92%)
8.	FOSSEE : Free and Open Source Software for Education	52(18.90%)	16(5.81%)	223(81.09%)
9.	Spoken Tutorial : Free Audio-Video Tutorials	48(17.45%)	22(8%)	227(82.54%)
10	NPTEL: National Programme on Technology Enhanced Learning	178(64.72%)	68(24.72%)	97(35.27%)
11	NAD : National Academic Depository	192(69.81%)	106(38.54%)	83(30.18%)
12	e-Shodh Sindhu Consortium: (INFLIBNET)	202(73.45%)	86(31.27%)	73(26.54%)
13	e-PGPathshala: a gateways of all PG courses(INFLIBNET)	215(78.18%)	92(33.45%)	60(21.81%)
14	e-Vidwan: Expert Databases & National Researchers Network (INFLIBNET)	85(30.90%)	68(24.72%)	190(69.09%)
15	Shodhaganga: A Reservoir of Indian Thesis (INFLIBNET)	218(79.27%)	125(45.45%)	57(20.72%)
16	Shodha-Gangotri: Repository of Research Synopses (INFLIBNET)	214(77.81%)	116(42.18%)	89(32.36%)
17	e-ShodhShuddhi : Plagiarism (INFLIBNET)	60(21.81%)	20(7.27%)	215(78.18%)
18	IndCat: Union Catalogue(INFLIBNET)	80(29.09 %)	68(24.72%)	195(70.90%)
19	IRINS: India Research Information Network System	85(30.90%)	65(23.63%)	190(69.09%)
20	Vidhay-Mitra: Integrated e-Content Portal	68(24.72%)	42(15.27%)	207(75.27%)

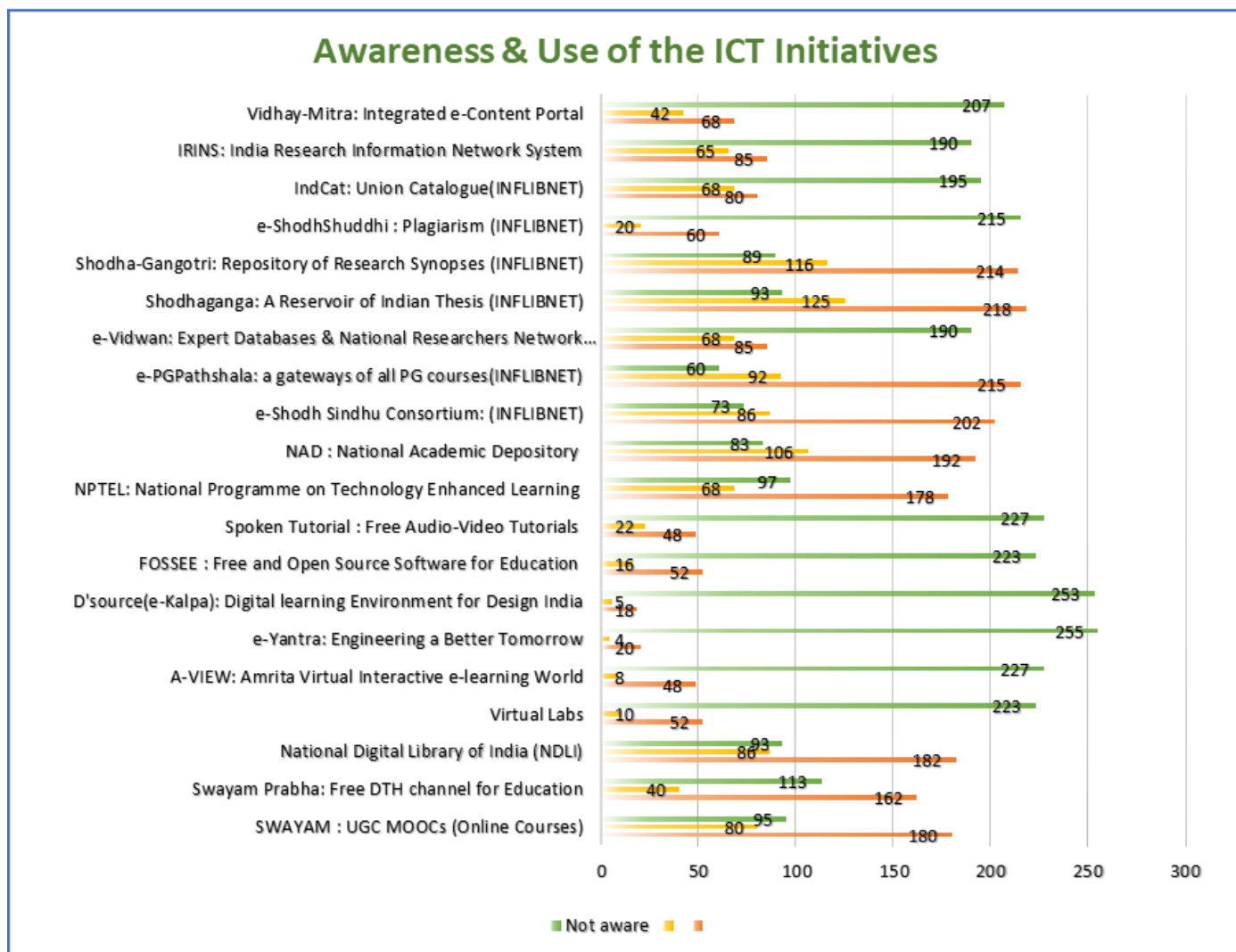


Fig 1 Awareness & Use of the ICT Initiatives of the Ministry of Education, Government of India

➤ *Awareness & Use of the ICT Initiatives of the Ministry of Education, Government of India:*

The data presented in Table 2 observed that the majority of the respondents are aware and use of the ICT Initiatives of the MoE Govt of India like Shodhaganga, followed by e-PGPathshala, Shodha-Gangotri, e-Shodh Sindhu, NAD : National Academic Depository, National Digital Library of India (NDLI), SWAYAM : UGC MOOCs, NPTEL, Swayam Prabha: Free DTH channel for Education, IRINS, and e-Vidwan, and also observed that,

The majority of respondents in the study are unaware of the initiatives mentioned, such as the e-Yantra, followed by D'source (e-Kalpa), Virtual Labs, FOSSEE, Spoken Tutorial, Vidhay-Mitra: Integrated e-Content Portal, e-ShodhShuddhi : Plagiarism, e-Vidwan, and IndCat: Union Catalogue,. However, a small percentage of respondents are familiar with some of these initiatives. It is evident that there is a need for increased promotion and dissemination of information about these initiatives to ensure that they reach a wider audience and make a significant impact on education in India.

Table 3 User Awareness Channels (n275)

S. No	Channels	Aware	%
1	Through Social media	62	22.54
2	Through Govt. departments websites	35	12.72
3	Through Teachers	40	14.54
4	By attending workshop/seminar	42	15.27
5	Through friends/colleagues	47	17.09
6	By the help of Librarians	45	16.36
7	As Part of Study /Course	04	1.45

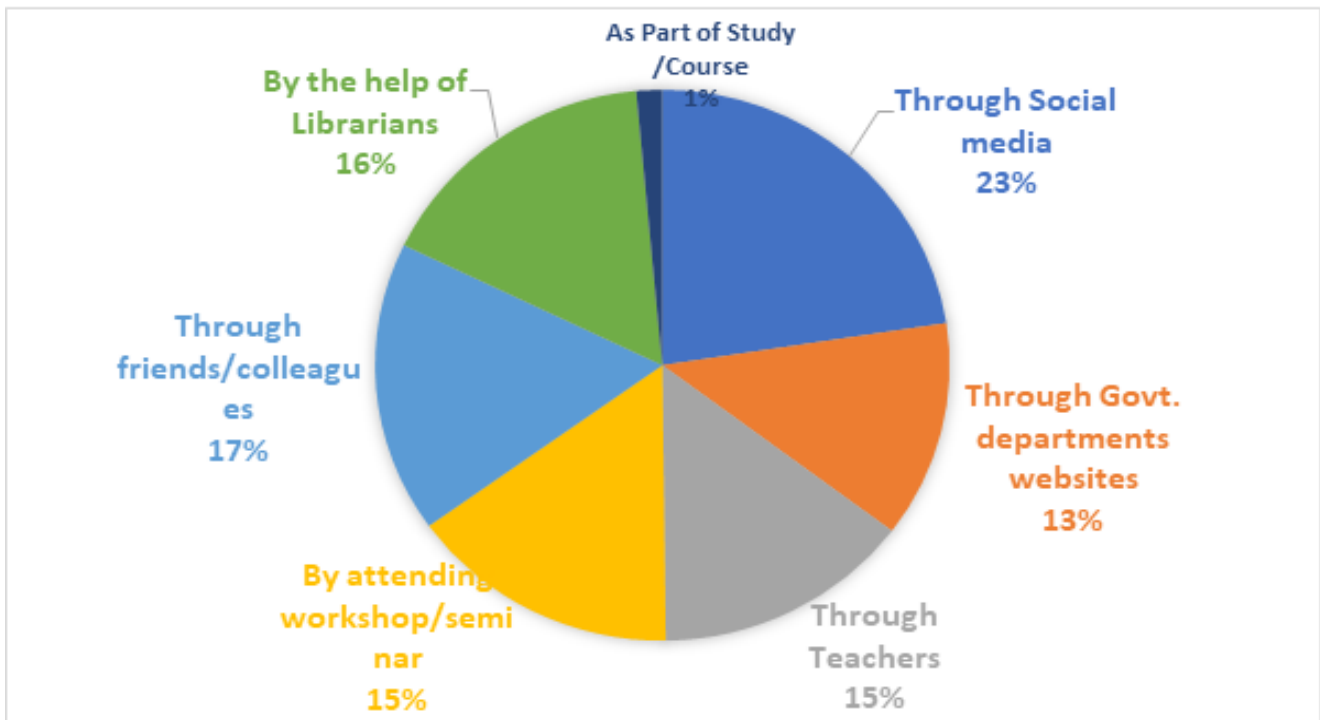


Fig 2 User Awareness Channels

➤ *User Awareness Channels ICT Initiatives by the Ministry of Education GOI among the Respondents:*

Table 3 indicates the sources of knowledge about ICT Initiatives by the Ministry of Education, Government of India, among the respondents. The analysis shows that 22.54% of respondents were taught by Social Media, followed by 17.09% of respondents who got knowledge about ICT Initiatives by the Ministry of Education, GOI. through friends or colleagues. 16.36% of them with the help of Librarians, and 15.27% of respondents By attending a workshop or seminar, 14.54% of respondents were taught by the teachers, 12.72% were known from the government departments websites, and only 1.45% were taught as part of a study or course about ICT Initiatives by the Ministry of Education, Government of India.

Table 4 Purpose of Access to ICT Initiatives of the Ministry of Education, Govt. of India (n275)

S. No.	Purposes of ICT initiatives Resources	1	2	3	4	5	Mean	Rank
a.	To collect resources for teaching & learning aspects	94(34.18%)	127(46.18%)	26(9.45%)	20(7.27%)	08(2.90%)	1.98	1
b.	To collect resources for research aspects	86(31.27%)	132(48%)	33(12%)	18(6.54%)	06(2.1%)	2.00	2
c.	To prepare examinations/evaluation purpose	46(16.72%)	108(39.27%)	35(12.72%)	44(16%)	42(15.27%)	2.73	5
d.	To acquire & update knowledge	98(35.63%)	112(40.72%)	30(10.90%)	22(8%)	13(4.72%)	2.05	3
e.	To maintain professional competence	53(19.27%)	98(35.63%)	52(18.90%)	40(14.54%)	32(11.63%)	2.17	4
f.	To collect resources for delivering lectures/ addresses, etc	20(7.27%)	26(9.45%)	68(24.72%)	78(28.36%)	83(30.18%)	3.64	6

(Note: 1-All time access, 2-Some time access, 3-Uncertain, 4-Not access, 5-Not at all access)

➤ *The purpose of using ICT initiatives of Ministry of Education, Govt. of India, by respondents:*

Table 4 revealed that the majority of respondents used ICT Initiatives to collect resources for teaching & learning aspects, with a mean value of 1.98. Followed by collecting resources for research aspects, with a mean value of 2.00 Followed by to acquire and update knowledge with a mean value of 2.05, followed by To maintain professional competence with a mean value of 2.17, and respondents using ICT initiatives resources To prepare examinations or evaluations with a mean value of 2.75 and only faculty members and some research scholars using ICT Initiatives resources to collect resources for delivering lectures or addresses with a mean value of 3.64.

Table 5 Preferred to access various kinds of information resources offered through ICT initiatives by the Ministry of Education, Govt. of India. (n275)

S. No	Types of conventional information sources	1	2	3	4	5	Mean	Rank
a.	Books /E-books	78(28.36%)	116(42.18%)	35(12.72%)	24(8.72%)	23(8.36%)	2.27	4
b.	Journals/E-Journals	96(34.90%)	128(46.54%)	34(12.36%)	12(4.36%)	5(1.81%)	1.91	2
c.	Newspapers and magazines (Both Print & Online)	63(22.90%)	112(40.72%)	38(13.81%)	34(12.36%)	28(10.18%)	2.46	6
d.	Research, case study, projects, and survey reports	103(37.45%)	133(48.36%)	26(9.45%)	10(3.63%)	4(1.45%)	1.84	1
e.	Theses and dissertations/E- Theses and dissertations	89(32.36%)	130(47.27%)	28(10.18%)	18(6.54%)	10(3.63%)	2.01	3
f.	Reference resources (Both Print & Online)	58(21.09%)	108(39.2%)	46(16.72%)	30(10.90%)	24(8.72%)	2.37	5
g.	Conference, seminar proceedings/E- proceedings	53(19.27%)	103(37.45%)	46(16.72%)	44(16%)	29(10.54%)	2.61	7
j.	Patents, standards, and specifications	30(10.90%)	100(36.36%)	48(17.45%)	52(18.90%)	34(12.36%)	2.73	8
k.	Unpublished or grey literature	26(9.45%)	97(35.27%)	55(20%)	56(20.36%)	41(14.90%)	2.96	9
l.	Government resources and publications	92(33.45%)	128(46.54%)	30(10.90%)	10(3.63%)	15(5.45%)	2.01	3

(Note: 1-Most Preferred, 2-Preferred, 3- Uncertain, 4-Rarely Preferred, 5-Least Preferred)

➤ Preferred to Access Various Kinds of Information Resources Offered Through ICT Initiatives by the Ministry of Education, Govt. of India:

Table 5 shows that the majority of respondents use ICT Initiatives to access Research case studies, projects, and survey reports, with a mean value of 1.84. Followed by to search Journals/E-Journals with mean value of 1.91 were responded, followed by to search Theses and dissertations/E- Theses and dissertations and Government resources followed by publications with the mean value of 2.01 followed by to access Books /E-books with the mean value of 2.27 were responded and to search Reference Sources with mean value of 2.37, followed by to read Newspapers and magazines with the mean value of 2.46 and to access Conference, seminar proceedings/E- proceedings with the mean value of 2.61 followed by to search Patents, standards, and specifications with mean value of 2.73 and only few respondents to access Unpublished or grey literature with the mean value of 2.96. Respondents preferred to access various kinds of information resources offered through ICT initiatives by the Ministry of Education, Government of India.

Table 6 Satisfactory features of access to Resources and services from ICT initiatives of the Ministry of Education, Govt. of India (n275)

S. No	Features	1	2	3	4	5	Mean	Rank
a.	Quality of digital contents	102 (37.09%)	130(47.27%)	28(10.18%)	9(3.27%)	6(2.18%)	1.86	3
b.	Relevance of information	98(35.63%)	137(49.81%)	25(9.09%)	12(4.36%)	3(1.09%)	1.85	2
d.	Authenticity of information	86(31.27%)	126(45.9%)	39(14.18%)	16(5.81%)	8(2.90%)	2.03	6
e.	Organize and Accessibility of content	96(34.90%)	138(50.18%)	26(9.45%)	10(3.63%)	5(1.81%)	1.87	4
f.	Available format of information	105(38.18%)	132(48%)	30(10.90%)	6(2.18%)	4(1.45%)	1.82	1
g.	User Interface/Search Facility	104(37.81%)	136(49.45%)	29(10.54%)	12(4.36%)	8(2.90%)	2.00	5
h.	Use assistance & user education	62(22.54%)	94(34.18%)	48(17.45%)	46(16.72%)	25(9.09%)	2.55	7

(Note: 1- Most satisfied, 2- Satisfied, 3- Moderately satisfied, 4- Not satisfied)

➤ Satisfactory Features of Access to Resources and Services from ICT Initiatives of the Ministry of Education, Govt. of India:

Table – 06 show that Satisfactory features of access to Resources and services from ICT initiatives of the Ministry of Education, Govt. of India, the majority of users expressed satisfaction with the mean values of 1.82 for Available format of information, 1.87 for accessibility, 2.00 for user interface and search facility, and 2.03 for authenticity of information in ICT initiatives by the Ministry of Education, Govt. of India. However, there is a notable dissatisfaction among users regarding the use assistance and user education programs, which received a mean value of 2.55.

However, it is important to note that the low satisfaction levels regarding use assistance and user education programs indicate a need for improvement in this area.

Table 7 Issues and Problems Encountered while Accessing Various Information Sources and Services Offered by ICT Initiatives by the Ministry of Education, Govt. of India. (n275)

S. No	Problems	1	2	3	4	5	Mean	Rank
a.	Inadequate information retrieval skill	98(35.63%)	136(49.45%)	30(10.90%)	8(2.90%)	3(1.09%)	1.84	2
b.	Lack of adequate ICT skills	94(34.18%)	128(46.54%)	30(10.90%)	14(5.09%)	9(3.27%)	1.96	4
c.	Lack of coverage of user requirement subject fields	95(34.54%)	134(48.72%)	31(11.27%)	9(3.27%)	6(2.18%)	1.89	3
d.	Lack of internet connectivity to use	84(30.54%)	114(41.45%)	32(11.63%)	24(8.72%)	21(7.63%)	2.21	7
e.	Lack of a sufficient number of high-speed computers	92(33.45%)	117(42.54%)	38(13.81%)	16(5.81%)	12(4.36%)	2.05	5
f.	Lack of guidance and support from libraries	88(32%)	109(39.63%)	36(13.09%)	26(9.45%)	16(5.8%)	2.35	8
g.	Lack of facilities for the physical disabilities	96(34.90%)	116(42.18%)	10(3.63%)	15(5.45%)	8(2.90%)	1.66	1
h.	Information is too vast	93(33.81%)	119(43.27%)	38(13.81%)	16(5.81%)	9(3.27%)	2.01	5
i.	Unfamiliar file formats	90(32.72%)	108(39.27%)	35(12.72%)	28(10.18%)	14(5.09%)	2.15	6

(1-Strongly agree, 2-Agree, 3-Uncertain, 4-Disagree, 5-Strongly disagree)

➤ *Issues and Problems Encountered while Accessing Various Information Sources and Services Offered by ICT Initiatives by the Ministry of Education, Govt. of India*

Table 7 discloses that Issues and problems encountered while accessing various information sources and services offered by various agencies under ICT initiatives by the Ministry of Education, Govt. of India, The survey said that that Lack of facilities for the physical disabilities with mean value of 1.66 followed by Inadequate information retrieval skill with mean value of 1.84 and respondents agrees with Lack of coverage of user requirement subject fields with mean value of 1.89, followed by Lack of adequate ICT skills with the mean value of 1.96 then Lack of a sufficient number of high-speed computers with the mean value of 2.05 & Lack of internet connectivity to use at the mean value of 2.21 followed by Lack of a sufficient number of high-speed computers with the mean value of 2.35. The survey said that lack of facilities for physical disabilities is a major issue faced by users. Additionally, the survey also highlighted the lack of user-friendly interfaces as another challenge for accessing information sources and services

Table 8 Methods Preferred to Conduct User Education Programmes to Understand the Various ICT Initiatives of Ministry of Education, Govt. of India by Tumkur University Library

S. No.	Orientation Methods	No's
a.	Through short terms user orientation training programmes	232(84.36%)
b.	Through library tour	186(67.63%)
c.	Through audio-visual presentation	195(70.90%)
d.	Through library In-house workshop /seminar	212(77.09%)
e.	Through library print/online brochure, manual, handbook/guides	208(75.63%)
f.	Through use of social networking platforms	228(82.90%)
g.	Through e-mail & mobile communication alerts	226(82.18%)

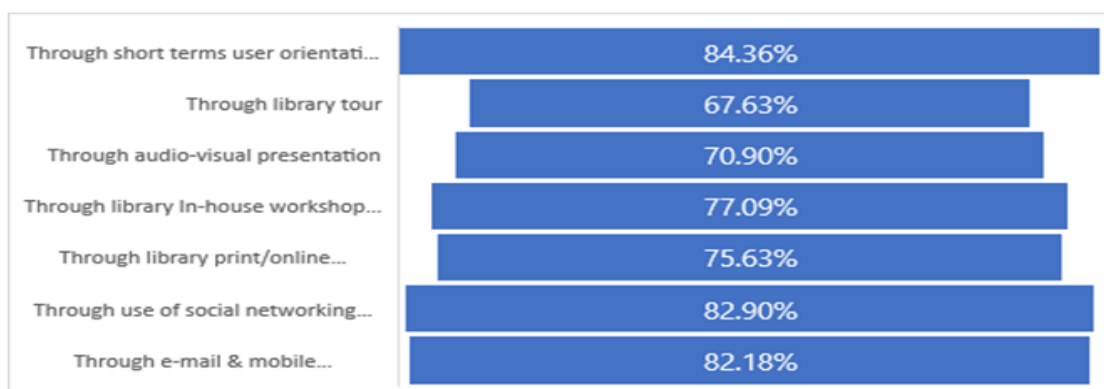


Fig 3 Methods Preferred to Conduct User Education Programmes

➤ *Methods Preferred to Conduct User Education Programmes to Understand the Various ICT Initiatives of Ministry of Education, Govt. of India by Tumkur University Library:*

Table 8 presents the preferred methods for conducting user education programs to comprehend the different ICT initiatives of the Ministry of Education, Government of India. It shows that out of 275 respondents, the majority of respondents 84.36% preferred short-term user orientation training programmes, followed by 82.90% preferred social networking platforms. and 82.18 % respondents are preferred Through e-mail & mobile communication alerts , 77.09 % are preferred Through library In-house workshop /seminar and 75.63% are preferred through library print/online brochure, manual, handbook/guides,70.90 respondents are replied through audio-visual presentation and only 67.63% are preferred through library tour.

➤ *Suggestions*

The following recommendations have been made in order to enhance access to and utilisation of the ICT Initiatives of the Ministry of Education, Government of India, based on the analysis and discussion.

- Tumkur University library should take a leading role to create awareness among users about the various ICT initiatives of Ministry of Education, Govt. of India by conducting training programmes, workshops, audio-visual presentations, demonstrations, etc., on regular basis.
- The ICT Initiatives should be divided on the basis of usage Additionally, focusing on user education to less used ICT Initiatives, such as e-Yantra and D'source (e-Kalpa), Virtual Labs, FOSSEE, Spoken Tutorial, Vidhay-Mitra: Integrated e-Content Portal, e-ShodhShuddhi: Plagiarism, e-Vidwan, and IndCat: Union Catalogue etc.,
- User Education should be conducted for a small group of users belonging to a single subject discipline, such as mathematics, physics, chemistry, biology, sociology, or economics, at a time.
- The resources accessible under ICT initiatives of Ministry of Education, Govt. of India in a particular subject are highly targeted and can be made known to the concerned user.
- The University library increase facilities for physical disabilities to use of ICT initiatives

VII. CONCLUSION

Indian universities are fortunate to have free access to a large number of scholarly publications, software support, MOOCs e-learning courses, expert databases, thesis, and dissertations under the ICT initiatives of the Ministry of Education. because the Ministry of Higher Education, Government of India, pays on behalf of the institutions, they are not subject to any financial burden. However, the present study indicated that for a number of reasons, the majority of the targeted beneficiaries are not receiving the benefits of ICT programmes. Only a fraction of Tumkur University's students, Research Scholars, and staff members are aware of

and utilise the ICT initiatives of the Ministry of Education. more users are not utilising ICT initiatives. User education programmes conducted by the Tumkur university libraries are found to be inadequate. The Tumkur university library should make every attempt to convert the non-users into actual users of ICT initiatives in order to bring them to the mainstream with an aim to achieve academic excellence. There is an urgent need on the part of the Ministry of Education, Govt Of India to review the software assistance, MOOCs e-learning Courses, Expert database, User Interface included in the ICT initiatives in order to fulfil the needs of the users belonging to all the subject disciplines that are taught in the Indian universities covered under the ICT initiatives of Ministry of Education. The university library needs to rise to the occasion by equipping themselves with cutting edge and powerful ICT infrastructure to provide a sustainable ambience for users in the competitive world.

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