Research Papers

Digital Literacy among Teaching community in Technical Institutions of Prakasam District, Andhra Pradesh, India- A Survey

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Abstract

The information communication technology has great impact on technical education in particularly preparing their students well-informed, skilled and globally competent to address the global level challenges and assuring technical growth. Digital literacy is main factor to give abilities to student community for improve the technical innovative skills to achieve global standards in digital world. It is need to effective teaching and learning process simultaneously by the latest ICT tools, web-based services for interaction with technical community. These resources made the student healthy education and technical professionals to effective methods of teaching recent changes in the contemporary world. Normally teaching profession are continuously learning and teaching process and life- long learning to their respective flied. Teaching community is using digital material for more effective and summarised and organised process to reach the expectation of their students. This paper seeks to examine use of ICT Tools and web-based services by 320 teaching faculty in prakasam district, Andhra Pradesh,India. Author adopted questioner method to collect information and tabulated which are affiliated under the Jawaharlal Nehru Technological University (Kakinada). Author selected six Engineering colleges from district. Majority of them agreed that availability of information easily but before use authentication needed teaching faculty state the point to awareness of web-based services are for research and academic purpose.

KEYWORDS :

Digital Literacy, ICT Tools, Teaching Community.

INTRODUCTION:

Digital literacy is interdisciplinary in nature and certain skills are required to navigate and critical thinking on issues on written words. Digital literacy involves find, use, summarize, evaluate, create and communication of information by using digital technologies. Digital citizen, how knows the rights of a person with in digital world iconic identity in emerging trades. The rapid proliferation of ICT and digital technologies in the last two decades has shaped the teaching and learning techniques a participative learner and teaching toward the access of digital content both faculty and students continuously faced problems with subject related matters. It is default to give conceptual clarity in exponential growth of information in this junction teaching community imports technical innovative and effective tools to preparing their students for challenging Carrere in digital world. It is need to professionals to ensure personal growth connects to global standards by creating an attitude and participate mechanism 21 century advanced technological expertise and affective communication and critical thinking leads to research and academic activates.

Prakasam (Line of Andhra) is first chief-Minster of Andhra Desam his memories the district named prakasam district head- quarter located in Ongole. Prakasam district was constituted 1970, carved out from Guntur (3 districts), Kurnool (3 Districts), Nellore (4 districts). It is famous for granite units and tobacco factories and spinning mills will know to PG, UG, and Engineering colleges.

Methodology:-

Technical intuitions are offering courses on PG, UG Courser under the affiliated to AICTE or UGC, the safe guard of education intuition and assuring for stranded education in india. The minimum qualification is to teach. Student is PG degree essential in concert subject. Technical institutes are giving assures to staff pattern and other related norms to the university and affiliated authorities. Higher education based on the service of institutions and faculty expertise makes impact on the student change globally competent. Faculty is used not only teaching but also learning process by latest ICT tools effective and important technical skill to fine and use and evaluate and guide the student in a effective manner. Questioner Method is used to collected data and personal interview also conducted 2013 December and response are recorded and tabulated and analysis and below discussed in detailed.

Objectives:-

• ·To know the utilization of ICT tools by the teaching community of engineering colleges
• ·To highlighted the usage of internet resources by the teaching community of engineering colleges
• ·To find use of online information resources by the teaching community of engineering colleges
• ·To know web 2.0 based services by teaching community of engineering colleges
• ·To investigate frequency of usage of web-based services in technical institutions
• ·To find opinion of ICT Tools merits and demerits.

Review of literature:-

The use of digital literacy in india detailed discussed by karisiddappa and Gopal Krishna and active use of e-resources and internet undertaken by Mishra and Balu they find their surveyed the faculty members of various colleges and universities, finding are E-journals, Electric-Theses and Desecration and E-book are most frequently by faculty and least extended usage is E-archives and Digital Libraries and E-resources and Online Data Bases. Search engine is widely used internet service and E-mail is mostly used web-based service. Ramakrishna gouda and walmiki made a significant effect on internet and electric recourse by the student of colleges and university , they survey brought out students are used computer for internet , Wikipedia is extensity used service for study and e-mail and search engine are most popular web-based services.

It is clear that above reviews are studied use of internet and e-recourse which is part of digital literacy. A study of use of ICT tools, web-based services and digital literacy among teaching community of technical initiations in prakasam district, Andhra Pradesh, India was conducted and result of the study is presented in this paper.

Table I: Institutions covered in the study

Name of the Institute	Year of Establishment	No.of Students	Respondents
Dr.Samuel George Institute of Engineering & Technology	1997	169	45
QIS College of Engineering & Technology	1998	259	40
Rao & Naidu Engineering college	1998	130	61
Malineni Engineering college	1999	165	40
St.Anna's Engineering college	2001	192	41
Pace Institute of Technology & Sciences	2008	104	93
Total		1019	320
Percentage		100	31.4

Table I : shows the technical institution as per year of establishment among 1019 teaching faculty author received 320 responses.

Table II: Purpose of using ICT Tools

ICT Tools	Class Work	Project Work	Internet Access	Study	Personal Work	Total (Percent)
Laptop	35 (17.67%)	18 (9.09%)	36 (18.18)	80 (40.40)	29 (14.64)	198 (100)
Desktop	18 (15.25)	10 (8.47)	23 (19.49)	38 (32.20)	29 (24.57)	118 (100)
Notebook Smart Phone	16 (15.68)	03 (2.94)	28 (27.45)	23 (22.54)	32 (31.37)	102 (100)
Cell Phones	03 (5.17)	00	13 (22.41)	03 (22.41)	39 (67.24)	58 (100)
Digital Camera	03 (6.38)	00	01 (2.12)	04 (8.51)	39 (82.97)	47 (100)
I-Pod	00	00	00	00	42 (100)	42 (100)
Total	75 (13.27)	31 (5.48)	101 (17.87)	148 (26.19)	210 (37.16)	565 (100)
Rank	4	5	3	2	1	

( )- Indicates Percentage

Table II: revels that most of ICT tools are used for personal use such as Notebook (31.37), Cell phones (67.24), Digital Camera(82.97) and IPod (100) . Laptop (40.40) and Desktop (32.20) are for study purpose. When comes to priority of use is personal work ranked with first and followed by study and internet most frequency used tool is Note book & Smart phones(27.45) . least participation is I-pod used for personal use only

Table III: Familiarity with internet resources

Internet Resources	No.of Respondents N=208	Percentage
Search Engines	69	33.17
Subject gate ways	23	11.05
Web Portals	40	19.23
Digital Libraries/Archives	24	11.53
Open Access E-books/E-Journals	42	20.19
Institutional Repositories	10	4.80

Table III: describes that in internet resources search engines (33.17) and e-content (20.19) have given top priority. Institutional repositories (4.80) are given least extent subject gate ways and web portal and digital library are moderate use by faculty members.

Table IV Usefulness of the resources

Online Information Resources	Very Useful	Useful	Sometimes Useful	Not useful	Total
Information available on Facebook	42 (30.21)	60 (43.16)	29 (20.86)	08 (5.75)	139 (100)
Books, Journals and Institutional Repositories	32 (27.58)	60 (51.72)	24 (20.68)	00	116 (100)
Reference Sources (Wikipedia etc..)	70 (44.58)	49 (31.21)	28 (17.83)	10 (6.36)	157 (100)
Dissertation and Theses	40 (27.77)	73 (50.69)	23 (15.97)	08 (5.55)	144 (100)

Conference and Seminar Proceedings	43 (29.86)	69 (47.91)	24 (16.66)	08 (5.55)	144 (100)
Web Portals	50 (47.16)	31 (29.24)	18 (16.98)	07 (6.60)	106 (100
Total	277 (34.36)	342 (42.43)	146 (18.11)	41 (5.08)	806 (100)
Rank	2	1	3	4	

Table IV: revels that the satisfaction level of faculty is good and most widely used for face book(43.16) and book, journal, institutional repositories (51.72), reference sources(44.58) dissertation and theses (50.69) and conference and seminar proceeding (47.91) web portal (47.16) are satisfactory

Table V: Purpose of using Web 2.0 based services

Name of the Web based Application	Class Work	Project Work	Networking with Friends	Study	Personal Work	Total	Rank
E-Mail	29 (13.61)	32 (15.02)	33 (15.49)	49 (23.00)	70 (32.86)	213 (100)	1
Facebook	23 (13.69)	22 (13.09)	40 (23.80)	09 (5.35)	74 (44.04)	168 (100)	2
Flickr	03 (8.33)	03 (8.33)	04 (11.11)	08 (22.22)	18 (50.00)	36 (100)	14
Twitter	02 (3.38)	04 (6.77)	08 (13.55)	13 (22.03)	32 (54.23)	59 (100)	11
Google+	41 (25.15)	63 (38.65)	10 (6.13)	16 (9.81)	33 (20.24)	163 (100)	3
Orkut	06 (6.18)	24 (24.74)	32 (32.98)	13 (13.40)	22 (22.68)	97 (100)	5
Web Blogs	04 (4.49)	04 (4.49)	29 (32.58)	13 (14.60)	39 (43.82)	89 (100)	6
LinkedIn	05 (6.66)	03 (4.00)	41 (54.60)	03 (4.00)	23 (30.66)	75 (100)	10
Moodle	03 (6.81)	14 (31.81)	03 (6.81)	03 (6.81)	21 (47.72)	44 (100)	13
Wiki	14 (18.42)	25 (32.89)	04 (5.26)	28 (36.84)	05 (6.57)	76 (100)	9
You Tube	12 (13.95)	08 (9.30)	04 (4.65)	19 (22.09)	43 (50.00)	86 (100)	7
SlideShare	28 (32.94)	39 (45.88)	08 (9.41)	05 (5.88)	05 (5.88)	85 (100)	8
RSS Feeds	04 (11.11)	16 (44.44)	03 (8.33)	10 (27.77)	03 (8.33)	36 (100)	14
Podcasting	04 (8.51)	02 (4.25)	03 (6.38)	03 (6.38)	35 (74.46)	47 (100)	12
Skype	03 (3.03)	03 (3.03)	23 (23.23)	24 (24.44)	46 (46.46)	99 (100)	4
Total	181 (13.18)	259 (18.86)	245 (17.84)	216 (15.73)	469 (34.15)	1373 (100)	
Rank	5	2	3	4	1		

Table V: shows that web 2.0 based services such as Wikipedia, Blogs and audio and video sharing sites and social networking sites are unprecedented popularity. Social networkings sites allow technical communicate to expertise their view and idea and connecting with the friends to strengthen their relations. Most popular services used for personal that is E-mail(32.86), Face book(44.04), Flicker(50.00), Twitter(54.23), Blogs(43.82), Moodle(47.72), YouTube(50.00) , Podcasting(74.46) and

Skype(46.46) for project work used Google+ (38.65) and Orkut(24.74), Slide share(45.88) and RSS feeds(44.44). It is clear that faculties are conversant with the web 2.0 based services they used their services for personal use and networking with friends. There is need to import skills through the services authentication of information before use

Table VI: Frequency of use of software and web based services

Software/Web based Service Used	Every Day	3-5 Times per Week	1-2 Times per Month	Rarely	Never	Total
Word Processing Software	50 (37.03)	28 (20.74)	29 (21.48)	15 (11.11)	13 (9.62)	135 (100)
Spreadsheet Software	08 (6.40)	34 (27.20)	49 (39.20)	29 (23.20)	05 (4.00)	125 (100)
E-Mail	98 (69.50)	12 (8.51)	09 (6.38)	14 (9.92)	08 (5.67)	141 (100)
Browsing Internet	90 (67.16)	32 (23.88)	04 (2.98)	08 (5.97)	00	134 (100)
Blogging	08 (8.69)	24 (26.08)	05 (5.43)	52 (56.52)	03 (3.26)	92 (100)
Internet Charting	59 (41.25)	29 (20.27)	23 (16.08)	14 (9.79)	18 (12.58)	143 (100)
Access Online Information Resources	63 (55.26)	24 (21.05)	19 (16.66)	05 (4.38)	03 (2.63)	114 (100)
Video Conferencing	04 (4.08)	14 (14.28)	23 (23.46)	52 (53.06)	05 (5.10)	98 (100)
Computer Games	25 (22.32)	09 (8.03)	07 (6.25)	32 (28.57)	39 (34.82	112 (100)
Total	405	206	168	221	94	1094
Percentage	37.02	18.82	15.35	20.20	8.59	100

Table VI depicts that every day used software and web-based services (37.02) such as word process software (37.03), e-mail (69.50), browsing internet (67.16), charting (41.25), access online internet resources(55.26). Spreadsheets software used for 3.5 times a week. Blogging (56.52) video conferencing (53.06) are rarely used applications. Computer games have limited users.

Table VII: Opinion regarding merit and demerits of ICT Tools

Opinion of the Student	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree	Total
I enjoy using computer and internet	71 (55.46)	33 (25.78)	12 (9.37)	00	12 (9.37)	128 (100)
It is easy to carry my laptop anywhere	78 (55.71)	40 (28.57)	08 (5.71)	04 (2.85)	10 (7.14)	140 (100)
Current information is available on internet	79 (62.69)	25 (19.84)	08 (6.34)	00	14 (11.11)	126 (100)
Internet helps me in my studies	78 (58.20)	21 (15.67)	33 (24.62)	00	02 (1.49)	134 (100)
Information is available in short time	74 (57.81)	35 (27.34)	12 (9.37)	4 (3.12)	03 (2.34)	128 (100)

Copying information is easier from computer/ Internet	24 (19.67)	42 (34.42)	32 (26.22)	16 (13.11)	08 (6.55)	122 (100)
Total	404	196	105	24	49	778
Percentage	51.92	25.19	13.49	3.08	6.29	100

Demerits of ICT Tools

Opinion of the Student	Strongly Agree	Agree	Not Sure	Disagree	Strongly Disagree	Total
I am not sure of quality of information available on internet	80 (68.30)	23 (19.65)	12 (10.25)	00	02 (1.70)	117 (100)
I like traditional system of learning	20 (17.39)	43 (37.39)	04 (3.47)	43 (37.39)	05 (4.34)	115 (100)
It is difficult to study for long time on computer screen/E-reader	20 (16.00)	49 (39.20)	25 (20.00)	28 (22.40)	03 (2.40)	125 (100)
Copyright violation is more in case of digital information	25 (20.32)	45 (36.58)	28 (22.76)	19 (15.44)	06 (4.87)	123 (100)
Student misuse computer and internet	19 (18.09)	40 (38.09)	20 (19.04)	19 (18.09)	07 (6.66)	105 (100)
Total	164	200	89	109	23	585
Percentage	28.03	34.18	15.21	18.63	3.93	100

Table VII: describes merits and demerits of ICT tools and it is useful every staff member for their individual and academic growth. Majority of the responses agreed both. They agree the information available and fast access is possible through ICT tools. But before use cheek the authentication of information and copyright violation are more in the web services.

CONCLUSION:-

Survey brought out usage of ICT tools and web-based services of web2.0 applications. For better growth individual and professionals are using ICT tools for quick response of information technical professionals are well know to important of information and skill to update themselves with digital technologies to address the global challenges. They prefer digital literacy makes a wide change in the minds of individual and connect themselves with other communities through social networking sites like face book flicker, twitter for effective communication. Digital identify through blogs making their personal professional achievement and activities are identified by global viewers. Web page creation software (moodle) used for intuitions and personal and activates related information and over all active user of ICT tools and web-based services regularly.

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