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Impact of E-Information Literacy Skills on Academic, Research and Extension Activities of University Students

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Abstract:

Based on our research paper 2016 focusing on impact of e-information literacy on university teachers, the current paper portrayed the factual impact of e-information literacy skills on information seeking behavior of university students in undertaking different activities meant for their academic and professional developments. Acquainting and trained with the necessary skills / techniques of e-information literacy (viz. computer skill, internet skill, search and evaluation skill etc.) make impacts in fulfilling of academic, research and extension activities of the academicians. It is learnt from the analysis that, 95.67% university students are opined that it makes greater impact on their academic and learning behavior once acquainted with the e-information literacy and its skills. Further, 42.91% university students surveyed indicated that, it has obtained a very high impact that they are aware of this skill as a backbone of lifelong learning process, with the highest mean ratio of 4.15 amongst other impacted activities.

Keywords: Impact, E-Information, Literacy, University Students, Activities, Skills, Research, Digital etc.

Introduction:

In this present Artificial Intelligence (AI) decade, ample opportunities in the various service sector is of prime concern hence more attentiveness is directed towards literacy among the digital technologies, its content and production. The chores and functions of ICT are distinct and direct that makes impact on the academician's research, learning and extension tasks. Availability and ease of access of timely scholarly materials boost the students to accomplish their academic assignments and engagements. At the same time the dilemma between the technological influence and services with the student's information needs should be counted and matched. E-information literacy governs the collaboration of various digital objects, contents and use irrespective of domain and assist in students lifelong learning experiences. With the changing technology students must get acquainted with necessary life skills of e-information literacy. The present survey displays the impact of e-information literacy/skills on the academic, research and extension parameters of university students.

Review of Literature:

E-information literacy a step ahead of information literacy (IL) explores the amalgamation of ICT and digital/e-literacy components and tools for easy access of e-information from the package of e-resources. Li and others[1] applied the Presage-Process-

Product (3P) model of learning to investigate the direct effects of presage factors (i.e., information literacy and self-directed learning skills), process factors (i.e., academic emotions) and the mediating role of process factors on high school students' online learning engagements. The result showed that students' information literacy, self-directed learning skills and positive academic emotions positively predicted their online learning engagements. Kumar[2] describes the level of digital information literacy among engineering students of Kurukshetra University, Kurukshetra and the result shows that email is the most indispensable source of information for all students and the usage of search engine has high percentages (68.80%) among students. Further, the result indicated that to collect study material with usage of digital resources is the top priority mentioned by the students under study. Bilawar and Pujar[3] investigated the impact of e-information literacy on information seeking behavior of university teachers which confirms that teachers are able to evaluate information critically and can classify/compare the information better after undergoing the e-information literacy programme. The paper concludes that e-information literacy empowers the university teachers to enhance e-information search skills effectively and independently for taking informed judgements. Adeleke and others[4] surveyed the relationship between information literacy and use of electronic information resources by postgraduate students of the University of Ibadan, Nigeria. The analysis dwells that low level of usage of electronic resources, in particular, full texts data bases is linked to lack of search techniques skills to access the myriad of e-resources. Further, it was noticed that there was significant relationship between information literacy skills and use of electronic information resources at $\alpha = 0.05$ (P =0.34). The study suggests for inclusion of information and communication technology course in the curriculum of every postgraduate programme, with emphasis on e-information literacy skills. Zulfiqar and Khalid[5] correlated the difference between perceived and actual IL skills of scientists by developing two scales with a base of ACRL standards for IL viz. self-reporting scale for the evaluation of perceived IL skills and an MCQs-based tool for testing actual IL skills. The findings revealed that the participants had overstated their perceived IL skills as they had showed poor performance in their test of actual IL skills. Further, the findings showed insignificant gender differences on perceived and actual IL skills of research students; however, the overestimation was found higher among females than their counterpart male research students regarding both IL skills. This study may be helpful in expressing and contextualizing ACRL standards for the assessment of IL based skills. Pandey[6] explored fake news distortion and disinformation as the new challenge in the digital literacy by analysing its entry, varieties and survival. The study illustrates how digital literacy and willingness on part of users can prove as a remedy in combating the fake news bug by exploring the various possibilities of duping users through a combination of intention and software algorithms. Ouyang and others[7] in their paper analyse the connotation of the term information literacy, i.e. information consciousness, information knowledge, information ability and information ethics by drafting the frame of information literacy evaluation index. Finally, they investigated the current situation of information literacy among the college students and put forward the methods to improve information literacy skills for the

students according to the existing problems. Information and Communication Technology (ICT) literacy level of trainee teachers was explored by Markauskaite[8] with the components of ICT-related capabilities and possible relationships between these components. Here, two elements of ICT-related general cognitive capabilities and three elements of technical capabilities were identified, respectively viz. (a) problem solving, (b) communication and metacognition, (c) basic ICT capabilities, (d) analysis and production with ICT and (e) information and internet-related capabilities. Further, it was found that general cognitive and technical capabilities are the two separate areas of ICT literacy; however basic ICT capabilities are the important component of both areas. Taha[9] distinguished the knowledge maps (K-map) for e-literacy in web based ICT (w-ICT) environment. The K-map and IL are considered as essential tools for the successful adaptation to inevitable paradigm changes in educational landscapes due to powerful impacts of the w-ICT on the learning processes. The e-literacy model ultimately aims at providing the end-user with necessary abilities to locate and evaluate the digital information in a variety of formats. From the reviews it is clear that no any study focussed on the impact of skills of e-information literacy targeted towards the university students academic and curricular aspects.

Objectives of the Study:

The prominent objectives of this research are:

1. To identify the level of progresses of the university students after acquainting and trained with the necessary e-information literacy skills for their academic and learning activities;
2. To study the extent of impact of e-information literacy skills of the university students in undertaking different academic activities.

Research Methodology:

For this survey, descriptive method of research and online pre-tested structured questionnaire as a data collection tool were applied. The scope is limited to university students (both post graduate and research) of Shivaji University Kolhapur, Maharashtra working at 37 different post-graduate departments falls under four faculties namely Humanities, Science and Technology, Inter-Disciplinary Studies and Commerce and Management. The online questionnaires were distributed to targeted sample of 351 university students randomly, out of that 254 students responded to the questionnaire; resulting into response rate of 72.36%.

Results and Discussion:

1. 95.67% university students are opined that it makes greater impact on their academic and learning behavior after knowing the attentiveness and value of e-information literacy and its skills they are using.
2. Furthermore, 94.49% university students expressed that, after acquainting and trained with the necessary skills / techniques of e-information literacy such as computer skill, internet skill, searching and evaluation skill etc. it results in improving academic, research and extension activities.

The extent of impact of E-Information literacy and its skills are matched with varied academic, research and extension activities at par with information seeking behavior of

university students on five-point scale rating viz.

1-No Impact; 2-Little Impact; 3-Greater Impact; 4-High Impact; 5-Very High Impact and the data pertaining to this is reflected in following Table 1

Table 1: Extent of impact of e-information literacy skills

Activities	1	2	3	4	5	μ	Sk
Able to create innovation web-based/digital e-content/e-learning tools	9 (3.54%)	11 (4.33%)	30 (11.81%)	95 (37.40%)	109 (42.91%)	4.12	-1.31
Able to design and manipulate my own database/system/webpage	11 (4.33%)	15 (5.91%)	51 (20.08%)	108 (42.52%)	69 (27.17%)	3.82	-0.91
Able to navigate, search and gather digital resources/information on the internet	9 (3.54%)	13 (5.12%)	35 (13.78%)	99 (38.98%)	98 (38.58%)	4.04	-1.17
Academic/Teaching/Learning and extension activities	6 (2.36%)	11 (4.33%)	39 (15.35%)	97 (38.19%)	101 (39.76%)	4.09	-1.1
Aware that an E-Information Literacy skill is a lifelong learning process	9 (3.54%)	4 (1.57%)	36 (14.17%)	96 (37.80%)	109 (42.91%)	4.15	-1.36
Comfortable experience of using the Internet / online learning tools	7 (2.76%)	10 (3.94%)	28 (11.02%)	112 (44.09%)	97 (38.19%)	4.11	-1.31
Communicate/participate and collaborate with others in virtual/e-learning environment/other network tools	10 (3.94%)	10 (3.94%)	38 (14.96%)	96 (37.80%)	100 (39.37%)	4.05	-1.19
Competent to apply E-Information Literacy skill in all the subject areas	9 (3.54%)	17 (6.69%)	31 (12.20%)	99 (38.98%)	98 (38.58%)	4.02	-1.15
Evaluate quality and relevance of e-information resources and has self-efficacy in citing information resources	8 (3.15%)	17 (6.69%)	51 (20.08%)	101 (39.76%)	77 (30.31%)	3.87	-0.84
Found that academic and learning work is interesting	10 (3.94%)	10 (3.94%)	38 (14.96%)	103 (40.55%)	93 (36.61%)	4.02	-1.18
Guiding and orienting to others	9 (3.54%)	13 (5.12%)	36 (14.17%)	102 (40.16%)	94 (37.01%)	4.02	-1.15
Learning through online mode increase my online learning experiences	7 (2.76%)	10 (3.94%)	31 (12.20%)	106 (41.73%)	100 (39.37%)	4.11	-1.26
Operate and manage computer, software and internet easily	11 (4.33%)	12 (4.72%)	37 (14.57%)	99 (38.98%)	95 (37.40%)	4	-1.16
Perform basic/simple and advance task on ICT tools/applications	11 (4.33%)	13 (5.12%)	34 (13.39%)	91 (35.83%)	105 (41.34%)	4.05	-1.21
To publish and deliver the research by means of ICT tools	11 (4.33%)	12 (4.72%)	40 (15.75%)	107 (42.13%)	84 (33.07%)	3.95	-1.11
Undertaking Research/Consultancy/Project work	6 (2.36%)	15 (5.91%)	38 (14.96%)	96 (37.80%)	99 (38.98%)	4.05	-1.05
Updating knowledge and outreach services	9 (3.54%)	10 (3.94%)	30 (11.81%)	104 (40.94%)	101 (39.76%)	4.09	-1.31

Note: Figures in parenthesis indicate percentage. μ Indicate Mean. SK Indicate Skewness. Five point scale: 1= No Impact; 2= Little Impact; 3= Greater Impact; 4= High Impact; 5= Very High Impact.

It is explored from the above Table 1 that, 42.91% university students surveyed indicated that, e-information literacy makes very high impact on the activity i.e they are aware that an e-information literacy skill as a lifelong learning process, with the highest mean ratio of 4.15 followed by again very high impact on the activity- able to create innovation web-based/digital e-content/e-learning tools (42.91%, Mean is 4.12). In connection to this, high impact was noted for the activities like comfortable experience of using the internet / online learning tools by 44.09% students and learning through online mode increase their online learning experiences by 40.16% students. Further, 39.76% university students surveyed indicated that, it has very high impact on their academic/teaching/learning and extension activities followed by high impact on updating knowledge and outreach services (40.94%). Very high impact is noted for the rest of the activities like communicate/participate and collaborate with others in virtual/e-learning environment/other network tools (39.37%), perform basic/simple and advance task on ICT tools/applications (41.34%) and in undertaking research/consultancy/project work (38.98%). Again, 38.98% university students surveyed indicated that, it has high impact that they are able to navigate, search and gather digital resources/information on the internet, competent to apply e-information literacy skill in the entire subject areas (38.98%), academic and learning work is interesting (40.55%), guiding and orienting to others (40.16%), to operate and manage computer, software and internet easily (38.98%), publish and deliver the research by means of ICT tools (42.13%), to evaluate quality and relevance of e-information resources and has self-efficacy in citing information resources (39.76%) and able to design and manipulate own database/system/webpage (42.52%).

Further, the skewness reflected negatively in most of the activities that shows positive impact of E-information literacy skills in undertaking varied academic, research and extension activities of the university students.

Conclusion:

To ensure successful and competent utilization of e-information resources against the technological influence it is necessary for the HEIs/universities to introduce and implement programs such as short term/certificate course specially in Information Literacy, core/open elective paper in the syllabi of UG/PG courses, then arrangement of various awareness campaign, user orientation program, seminar and workshop etc. that would strengthen information/e-information literacy (now AI literacy) skills of school/college/university students. There is need to develop a unique model curriculum specifically on information literacy/e-information literacy for UG/PG students, which will be used world-wide that integrates digital literacy skills either through online or hands on practical's and exercise based phenomenon beneficial for students.

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