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Web Information Seeking Behaviour of Academic Staff: in case of Assosa University

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Abstract: *The purpose of this study is to investigate the web information seeking behavior of Academic Staff Students of Assosa University. To do so, cross-sectional descriptive survey were employed using both quantitative and qualitative approaches. A total of 174 Academic Staff participated in the study. Data were collected using survey questionnaires and semi-structured interview. The data generated through survey questionnaire were analyzed using frequency, percentages, Mean, Chi-square test and independent t-test. The data generated via open ended questions and semi-structured interview were analyzed narrative description. Results showed that even though Most of Academic Staff information need is based on print and electronic sources, majority of them 136(63%) use internet on daily basis. The results show that most Academic Staff seek web information for the purpose of doing class assignment 159(90.2%) and conducting research 124(71.2%), Moreover the findings suggested that Google search engine is the most consulted web channel for academic purpose; however websites and social media also frequently used web channel by and Academic Staff. Most of the respondents are dissatisfied with slow internet connection and lack of information literacy training due to limited internet bandwidth. Moreover, a number of challenges were identified, dominant among them being speed of internet connection, lack of training and information overload. The result of the Chi-square test revealed that there is a statistically significance difference between male and female counterparts in terms of frequency usage of web channel, purpose to use web channel for academic activity. The study recommends comprehensive information literacy program, proper marketing about the importance of scholarly databases and OPAC. Equally, improving technical and physical infrastructures is essential to enable effective utilization of web for Academic Staff.*

Keywords: information seeking and Web information seeking behaviour

1. INTRODUCTION

1.1 Background of the Study

Information Seeking (IS) has been an important human activity since the evolution. Human seek information to gather, store, interpret and use for various purposes (Afzal, 2009). Information is important to increase the awareness, to change the current state of knowledge, to change attitude, and to solve a problem, and to help for decision making process. They found that a more comprehensive picture of web information seeking has only recently started to emerge through empirical studies that recognise the importance of analysing fundamental differences of users. The study also revealed that 'information seeking'- as opposed to information searching because it

involves examination of characteristics and differences that relate to users as information seekers rather than simply to the exploration of the information searching activity. However, comprehensive studies of web information seeking are still limited, many of the approaches followed are problematic and a consistent methodological framework vis-à-vis the peculiarities of the web and its users has not yet been developed. The participation in seeking web information is generally poor among the developing countries. The explosion of the internet and the web is a reality some developing nations have not yet fully grasped. However, this is at varying levels; some nations are better positioned than others (Francis, 2008). The papers mostly focused on health information seeking behaviours (Mulusew, 2012). Therefore, study to some extent fill the literature gap related to web information seeking behaviour.

1.2. Statement of Problem

Today, the online web-based resources are one of the main sources of information for Academic Staff which is why web searching has become one of the most active information access tasks in higher education. Kellar and Shepherd`s (2006) declare that although a large body of theoretical research conducted on information seeking behavior in both electronic and non-electronic environments exists, information seeking on the web is a 'newer' branch of research that differs from library-based information seeking in the complexity of the resources and the tools used. Web information is a vital resources needed by Academic Staff Students to perform well in their academic pursuit. Academic Staff in Assosa University use the web more hours in the quest of information. However the web information need, channel of web information sought, the purpose of seeking web information, level of satisfaction and problem encountered during web information seeking is unknown.

1.3. Objective of the Study
1.3.1. General Objective

The overall objective of the study is to investigate the web information seeking behavior of the Academic Staff of Assosa University.

1.3.2. Specific Objectives

To identify the web information needs of Academic Staff of Assosa University.

To investigate the satisfaction level of the Academic Staff towards the use of the web

To identify the challenges that Academic Staff faced web information seeking behaviour.

To examine whether there is a significant gender difference in the web information seeking behaviour among Academic Staff.

1.4. Scope and Limitations of the Study

The study focused on investigating the web information seeking behaviour Academic Staff of Assosa University. Since the university environment is a diverse group comprising different Academic, management staff & Students and its expensive and time consuming, the study was not including the others staff in the University.

1.5. Conceptual frame work

The conceptual framework mainly derives from the above literature review. The researcher also tries to adapt a general model of information use (Deltor, 2003). The overall process is shown briefly by the following diagram. The conceptual framework shows the relationship among needs, seeking and use of web information seeking. It comprises multivariable independent and

Figure 2: Conceptual framework
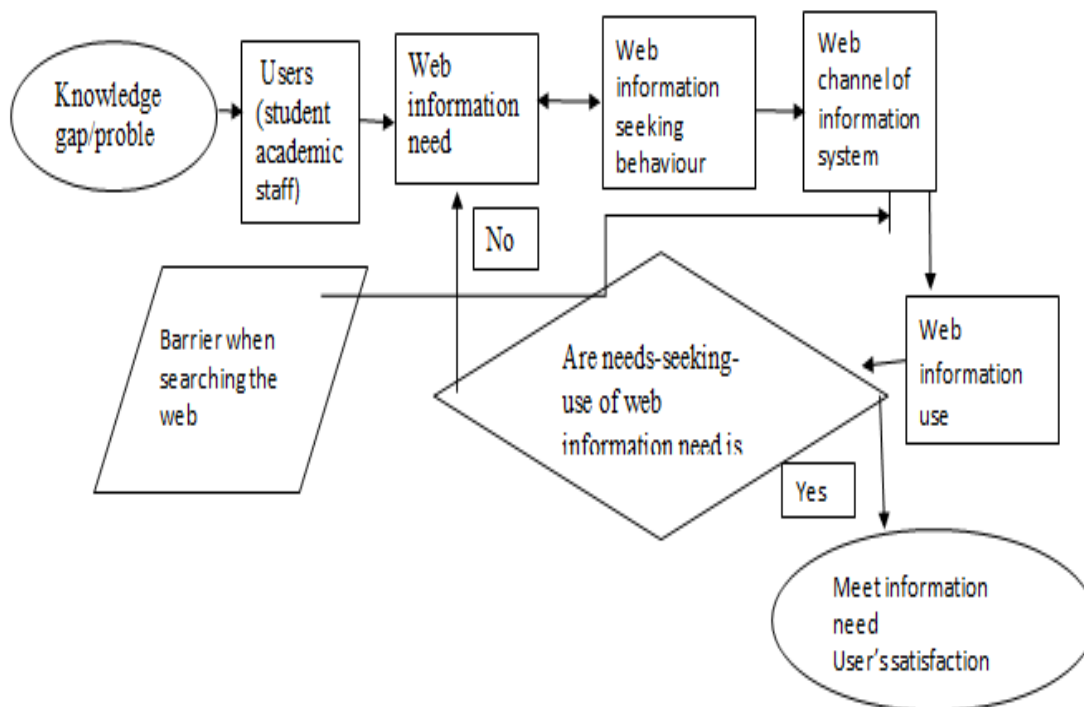
dependent variables. The independent variables are gender, discipline, web experience, availability of information, accessibility of information and knowledge gap. The dependent

variables are web information need, web information seeking behaviour, web information use and level of satisfaction.

2. Research Methodology

2.1. Descriptions of the Study Area

Assosa University is located 675 km north west of Addis Ababa at Assosa town which is the capital city of Benishangul Gumuz Regional State. The University started its function with five faculties and seventeen departments by admitting the first batch of 1043, regular students which are assigned to these five Faculties. Namely: - Engineering and Technology, Natural and Computational Sciences, Agriculture and Natural Resource, Business and Economics, and Social Sciences and Humanity faculties. In 2017/18 Academic year, the University continued its teaching learning process with7colleges, 3 schools and 36 departments (ASU Website, 2016).

2.2. Research Design

The methodology employed by the researcher is a cross sectional study design using quantitative and qualitative approaches to achieve the research objectives. In other words, the study employed mixed research methodology. This complementary method of investigation was used to acquire greater insight and more clear and complete picture of the Academic Staff of the Assosa University on web information seeking behaviour.

2.3. Population of the study

The population of the study will be Academic staff of Assosa University. The target population was 1380 (ASU Registrar Office, 2013).

2.4. Sampling Methods

This study was used proportional stratified random sampling technique and followed by simple random sampling technique for this assessment. On the other hand, Kothari (2004) mentioned that the size of the sample should neither excessively be large nor too small. It should be optimum. According to Sandelowski (2000) investigated that the absolute size of a sample is much more important than its size relative to the population. Therefore the researcher has decided to take 15% sample size from the target population of Academic Staff (1380) The sample size prepared based

on proportional stratified random sampling technique (y x 15/100= 15%) Y= sub group population.

Table 1: User Categories, Population and Samples of the Study

No	User Category	Population			Target Sample size (15%)			Sample Response rate 86.4%		
		Sex		**Total**	**Sex**		**Total**	**Sex**		**Total**
		F	**M**		**F**	**M**		**F**	**M**	
1	Academic Staff	284	1986	1380	42	165	207	39	135	174

Source: Assosa University Registrar office (2013).

2.5. Data Collection

In order to collect the required data for the study, the following three types of data collection tools were used: observations, questionnaires and interviews.

2.6. Data Analysis

The collected quantitative data was processed using SPSS software version 21.0; in that, descriptive statistics was used to put the result in the form of tables. Qualitative data was collected and the result of the finding of qualitative data was displayed in the form of narrations, explanations, concepts, and opinions. The presentation was made using frequency table, percent and mean were used to describe among information seeking behaviour Academic Staff. Significance differences were assessed with Pearson chi-square test, Chi-square and T-test.

3. Result and Discussion

The respondents were from Academic Staff 174 (81.6%). Of the 174 Academic Staff, 39(19.8%) were female and 135 (80.2%) male.

3.1. Preference of Information Source

Table 3: Preference of Information Sources

Information source		respondents category Academic Staff
printed	Count	17
	%	7.9

electronic	Count	37	
	%	17.1	
Both	Count	120	
	%	55.6%	
	Count	174	
	%	80.6	

% represents percentage

The majority of students 120(55.6%) preferred both print and electronic sources of information to meet their academic information need. However, most of the respondents relied on electronic information sources because of its convenience, accessibility and source of versatile information.

3.2. Method of Internet Access

Table 4: Method of Internet Access

respondents category	Method of internet access	Frequency	Percent	Chi-square Test		
				df	χ^2	P
	wired office terminal	1	.6			
	wired comp lab	73	42.0			
	wireless comp lab	26	14.9			
Academic Staff	wired comp lab & wireless comp	69	39.7			
	wired comp and wireless comp and wireless home	5	2.9			
	Sub Total	174	100.0			

To meet the web information need, large number of students (95%) use ASU's wired and wireless internet connection computer labs to access different sources of information. The Chi-square test has proved that there is statistically significant [χ^2=194.828.df=5 ρ =0.000] difference between those who preferred Internet access through wireless and wired terminal to meet academic information need.

3.3. Extent of agreement for availability of adequate information on the web

Table 5: Extent of Agreement to the Adequacy of Web Channel

Web Channel	Strongly Agree		Agree		Neutral		Disagree		Strongly Disagree	
	F	**%**	**F**	**%**	**F**	**%**	**F**	**%**	**F**	**%**

Search Engine	123	56.9	84	38.9	6	2.8	2	0.9	1	0.5
Websites	53	24.5	102	47.2	46	21.3	13	6	2	0.9
Electronic mail and social network	61	28.2	90	41.7	48	22.2	12	5.6	5	2.3
Library Online Catalogue (OPAC)	58	26.9	74	34.3	63	29.2	18	8.3	3	1.4
Online Scholarly Database	35	16.2	84	38.9	77	35.6	14	6.5	6	2.8

` F = Frequency,   %= Percentage

On the issues of adequate information found from web channel to meet their information need, it was found out that the vast majority of the respondents 123(56.9%) strongly agreed that adequate information can be found from search engine particularly Google. OPAC and scholarly database were the least ranked web channel in terms of adequate information for academic purpose. The Chi-square result showed that there is statistically significant difference between the level of agreement with regard to adequacy in using search engine, website to meet their information need [χ^2=298.491, df= 4. ρ = 0.000] , [χ^2=142.843, d f= 4. ρ = 0.000] respectively. It was therefore found that the majority Undergraduate Students strongly agree with the idea that adequate information is obtained from search engines mainly Google and websites. In relation to this Nkomo (2009) found that both students mostly rely on search engine, websites and email respectively.

3.4. Frequency of Internet Usage

Table 6: **Frequency of Internet Usage**

Category	Frequency	Percent	Chi-square	df	P value
Daily	120	63.0	197.222	3	0.000
twice a week	39	27.8			
once in a month	5	3.2			
2-3 a month	10	6.0			
Total	174	100.0			

This finding is supported by different studies which indicated that most of them access internet on daily basis mainly for academic purposes. The Chi square test result also proved that, there is

statistical significance difference on frequency of usage internet among Undergraduate Students [χ^2= 197.222, df=3, ρ =0.000]. The result revealed that the majority of Undergraduate Students use internet on daily biases. This result confirms the works of (Milkyas, 2012; Nekom, 2009) who found that large number of faculties and students use internet several times a day. Furthermore, almost all interviewees replied that it is easy to use, easily accessible at remote with no human intervention and can found relevant information based on their need.

3.5. Purpose to Seek Web Information and Frequency of Use by Undergraduate students

Table 7: Purpose to Seek and Frequency of Use by Undergraduate Students

Purposes you seek	Very frequently		Frequency		Rarely		Very rarely		Never	
	F	%	F	%	F	%	F	%	F	%
Class assignment	76	43.7	83	47.7	9	5.2	1	0.6	5	2.9
Research	58	33.3	66	37.9	25	14.4	4	2.3	21	12.1
Entertainment	19	10.9	30	17.2	82	47.1	17	9.8	26	14.9
Communication	51	29.3	51	29.3	49	28.2	9	5.2	14	0.8
Study for exam	19	10.9	51	29.3	74	42.5	16	9.2	14	8.0
General awareness	35	20.1	70	40.2	44	25.3	14	8	11	6.3

%= percent   F=frequency

The majority of postgraduate students seek web information frequently for the purpose of doing class assignment 76(43.7%) Communication51 (29.3%) and conducting research 58 (33.3%). The results confirms with the study conducted in South Africa Nkomo et al. (2010) , which reveals that Most of the time students information seeking behaviour involves the need to complete course assignments, prepare for class discussions, seminars, and research.

3.6. Frequency Usage of Web Channel

Table 8: Frequency Usage of Web Channel

Web Channel	Min	Max	Mean	Mode	Std. Deviation
Search engine	1.00	4.00	2.75	3	.46506

Websites	1.00	3.00	2.28	2	.55491
Social media	1.00	3.00	2.22	2	.64460
OPAC	1.00	3.00	1.99	2	.63239
Scholarly Database	1.00	3.00	1.87	2	.62643
Subject Portal	1.00	3.00	1.50	1	.65413
Average	1.00	3.00	2.10		.34801
Valid(listwise)	1.00	3.00			

The study showed that Search engine, Websites, and social media were the most frequently used web channel in order. The least frequently used web channel by the respondents was OPAC, Scholarly database and Subject portal. The findings indicated that search engine is the most frequently used web channel. In contrast OPAC, scholarly database and subject portal less frequently used where their Mean value is less than the average (Mean= 2.10) value. The finding is also in agreement with Nkomo (2009) found that student mostly rely on search engine, websites and email.

3.7. Skill of Web Usage

Table 9: Web information usage skill

Respondent	N	F/ %	Very good	Good	Average	Poor	Very poor
Undergraduate Students	174	F	35	74	52	10	3
		%	20.1	42.5	29.9	5.1	1.7

Table 9 clearly indicated that undergraduate student's web using skill, 35(20.1%) the respondents rated as very good, 74(42.5%) good, 52(29.9%) rated average respectively. Therefore, the researcher can concluded that Undergraduate Students lack skill in using web for information seeking. Dadzie (2009) supported these findings and revealed in her study that some students entering college and university have limited knowledge of fundamental research and information competency skills especially for effective searching, evaluating and use   online electronic resources for academic purpose.

3.8. Information Literacy Training
Table 10: Information Literacy Training

respondents category		Frequency	Percent
	yes	86	49.4
Undergraduate	no	88	50.6
	Total	174	100.0

Only more than half of 88 (50.6%) Undergraduate Students didn't take training on how to use web information channels. Thus, this suggests that majority of Undergraduate Students 84(49.4%) took information literacy training. The researcher as university library staff knows that the library and information centre provides information literacy training every year for new comers (1st year students). As indicated by Adeogun (2006) the purpose of information literacy (IL) education is to help students develop critical thinking and analytical skills which they will need for transforming information into knowledge.

3.9. Usefulness of Information Literacy Training

Figure 3: Usefulness of Information Literacy Training
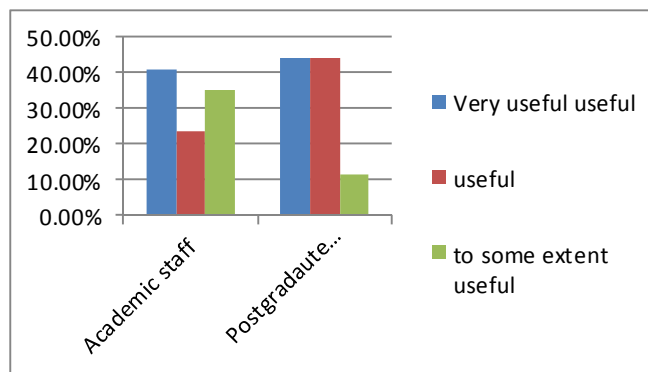
Figure 3 indicated that, Undergraduate Students who confirmed that training has been very useful were (44.2%), useful (44.2%) and to some extent useful (11.6%). Only less than half of the respondents took training on how to use web information channels. Majority of the respondent reported that training has been useful regardless of level of usefulness. Therefore, majority of the respondents found that the training offered by the library was useful, it does not mean that they are complete and satisfied by the information literacy training

3.10. Web information for academic and research work

Figure 4: Web Information for Academic and Research Work
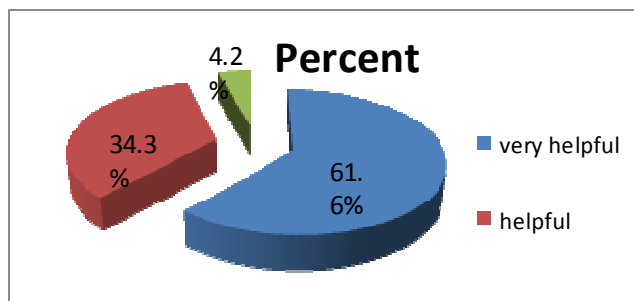
The study shows majority of undergradaute students considered web infromation were helpful for academic and resarch purpose. The findings of the study was consistent with Nokom (2009) and Milkyas (2012) who noted that most of instructors access internet for searching and retrieved information which is helpful for research. Thus, the intervention of Assosa University library and information technology centre will play pivotal role to build appropriate network infrastructure, subscribe relevant online electronic resources and proper marketing/education to facilitate learning-teaching and research activities of the university.

3.11. Web Information Use Satisfaction

Table 11: Web Information Use Satisfaction

Level of satisfaction	V.S		S		Neutral		DS		V.D	
	F	%	F	%	F	%	F	%	F	%
Information literacy/ICT training	13	6	41	19	57	26.4	94	43.5	11	5.1
Speed of internet connection	26	12	44	20.4	58	26.9	74	34.3	14	6.5
Resolve problem and meet needs	25	11.6	70	32.4	81	37.5	35	16.2	5	2.3
Use and relevance of online scholarly	25	11.6	71	32.9	73	33.8	37	17.1	10	4.6
User interface are easy to use	21	9.7	66	30.6	89	41.2	29	13.4	11	5.1
Online public access catalogue	11	5.1	36	17.6	106	49.1	55	25.5	6	2.8

The study shows majority of the respondents were dissatisfied by information literacy training 94(43.5%) and speed of internet connection 70(34.3%). Nearly half of the academic staff 106(49.1%) chose neutral (neither satisfied nor dissatisfied). On the other hand, nearly one third of academic staff

71(33%) satisfied with the relevance of online scholarly database and web information resolve their problem.

3.12. Challenges in Web Information Seeking Behaviour

Table 12: **Challenges in Web Information Seeking**

Problem faced	Serious problem		Moderate problem		Neutral		Minor problem		No problem		M	R
	F	%	F	%	F	%	F	%	F	%		
Slow Internet connections	92	42.6	77	35.6	12	5.6	31	14.4	4	1.9	4.03	1st
access restrictions	46	21.3	89	41.2	32	14.8	37	17.1	12	5.6	3.56	2nd
lack of training/help in using online electronic resources	61	28.2	76	35.2	24	11.1	30	13.9	25	11.6	3.55	3rd
information overload	20	9.3	78	36.1	54	25	49	22.7	14	6.5	3.19	5th
It takes time to get the right information	37	17.1	87	40.3	31	14.4	42	19.4	19	8.8	3.38	4th
Required information is not available	22	10.2	80	37	34	15.7	56	25.9	24	11.1	3.09	6th
Do not know how to search and retrieve information	14	6.5	27	12.5	41	19	55	25.5	79	36.6	2.27	7th

NB: F=frequency M= Mean   R=Rank

Respondents were asked to mention problems they faced in web information seeking for academic purpose. Seven possible problems were listed and respondents were asked to rank them using a five-point Likert scale. Results show that the most ranked problem was "slow internet connection" as number one (mean=4.03), followed by "access to restriction," and "Lack of training on ICT/information literacy," with mean scores of 3.56 and 3.55.

3.13. Comparison of sex difference with respect to web information seeking behaviour of Academic staff's

Table 13

15: Gender Difference Web Information Seeking Behaviour for Undergraduate Students

Attributes	Sex of Undergraduate	N	Mean	Std. Deviation	t	Df	Sig. (2-tailed)
Web information is adequate for academic purpose	Female	39	19.3077	2.68675	-.846	172	.399
	Male	135	19.7556	2.97117			
purpose to use web information	Female	39	19.4615	3.02486	-4.524	172	**.000**
	Male	135	22.2000	3.41157			
Frequency usage of web channel	Female	39	11.3846	1.92785	-3.613	172	**.000**
	Male	135	12.6889	2.00174			
Satisfaction level for information seeking behaviour	Female	39	18.9487	4.97334	-.380	172	.704
	Male	135	19.2593	4.35027			
Challenges hinder information seeking behaviour	Female	39	23.7949	4.71939	-.380	172	.704
	Male	135	23.4222	5.56437			

NB= * Significant at alpha 0.05 level

The researcher has been tested if there is any significance difference between male and female with respect to different attributes of web information seeking activity by using independent T-test. The researcher conclude that there is a statistical significance difference between male and female academic staff respondents [$t_{(40)}$=2.115, ρ=.041]. Showing that female are strongly agree with adequate information can be found from the web channel (Mean=21.13) than their male counterpart (Mean = 19.18). The finding was consistent with Steinerova and Susol (2007) indicated that men tend to be more satisfied with the result of information seeking.

4. Conclusion

Most of Academic staff information need is based on hybrid (print and electronic) sources of information that mainly focused on web based information sources. This effect might be ascribed to ease of electronic resources, accessibility and continuity of service.The main purpose of using web information by Academic staff is for communication and research than teaching and general awareness purpose. Similarly, the main purpose of using web information by Academic staff is for class assignment and research than communication and entertainment. Thus, web information seeking behaviour of Academic staff mostly relied on academic purpose and self-development.

The most visited web in terms relevance and frequency of usage among web channels according to their orders were: - Search engines, Websites, Social media, OPAC and Scholarly database.Most of Academic staff dissatisfied with slow internet connection, lack of information literacy training and use of OPAC. The majority of Academic staff's (38%) who might be unsure of their opinion about relevance of scholarly database could be in indication of lack of awareness about its importance for academic purpose.

As evidenced by the t-test, a statistical significant differences was observed between genders Academic staff [$t_{(172)}$=-3.613, ρ=.000], showing that males frequently used web channel (M=12.68) than their female counterpart respondents (M= 11.3846). Similarly a statistical significant differences was observed between genders of Academic staff [$t_{(40)}$=2.115, ρ=.041], showing that female are strongly agree with adequate information can be found from the web channel (Mean=21.13) than their male counterpart (Mean = 19.18). Moreover, there are challenges affecting effective web information seeking were revealed by Academic staff. Key among them was slow internet connection, access restriction, lack of training and information overload.

5.   Recommendation

Library and information centre should conduct need assessment to identify the level of information literacy skill of each user and based on the result information literacy training manual should be prepared in order to narrow meet the users need. Library and Information centre must build capacity of Academic staff by promoting information literacy and providing support for the effective use of web information resources. IT skills are the precursor to or the foundation of effective web information seeking strategies. Thus, Computer courses must be included in all aspects of curricula development.

There is a need to organize user-workshops in educating and training regarding the various web information sources available that includes PERI scholarly databases, OPAC and other relevant open source that would helpful for academic purpose.

Information literacy needs should get special attention by the Assosa University top management to ensure lifelong learning .Therefore; the information literacy program should be incorporate in the university curriculum. More information about all the various web information channels should be provided, about those that remained   unpopular (e.g. scholarly databases and OPAC). The study proved that most of Undergraduate Students were untrained and did not properly used university subscribed scholarly databases for teaching and research purpose. Therefore, there should be more workshops on INASP online scholarly databases   and other open sources for Academic staff at regular intervals.

The University librarians and institutes should develop information marketing strategy to create awareness among Academic staff on the available online scholarly databases and other useful electronic resources.

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