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LIBRARY TECHNOLOGICAL CHANGE MANAGEMENT

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ABSTRACT

The other purpose of this study is to assist in the identification of such libraries. The findings of an exploratory survey that were carried out on behalf of the United States Agricultural Information Network (USAIN) Technology Trends Interest Group are presented in this paper. The major purpose of the study was to compile a list of current, forthcoming, and newly developed information technologies that are being used in agricultural library collections. One of the secondary goals was to find people who would be willing to act as a resource to help encourage cooperation and the sharing of knowledge on certain technologies. The knowledge that pertains to agriculture is a significant component that interacts with the other aspects of production. It is arguable that the productivity of these other components, such as land, labour, capital, and management competence, may be increased by information that is pertinent, trustworthy, and helpful. Farmers are able to improve their decision-making by using the information that is provided through extension1, research, education, and agricultural organizations.

Keywords: Library, Technological

INTRODUCTION

When applied to library services and search engines, Web 2.0 technologies are known as Library 2.0 technologies. The term "Web 2.0 technologies" refers to a wide range of web-based social and communication applications, including but not limited to Facebook, MySpace,

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blogs, RSS feeds, wikis, and many more. Tim O'Reilly (2005) is credited with being the originator of the concept of Web 2.0. O'Reilly defines Web 2.0 as technologies that are simple to use, dynamic, collaborative, and user-centered. These technologies make use of interactive multi-media as well as social communication and networking information systems. The library and information sector, along with other allied fields, are continuing their discussion on the possible value of these technologies (Matuszak, 2007). Some people have the opinion that these technologies are only a fleeting trend that does not provide much more substance to the process of establishing collections or providing library services. Others contend that regardless of the intrinsic value of these technologies, library users have embraced their usage, and it is required upon libraries to utilise them in order to communicate with their users. They say this regardless of whether or not the technologies themselves are valuable (Rogers, 2008). While this topic is still being discussed, a number of libraries have already begun experimenting with and putting Library 2.0 technology into practise, with varied levels of success. There is an expanding amount of research documenting the experiences of libraries in providing services and establishing connections with patrons via the use of Library 2.0 technology . This research aims to help identify those libraries serving agriculture that are investigating or adopting Library 2.0 technologies for the delivery of library services or to connect with users.

The other purpose of this study is to assist in the identification of such libraries. The findings of an exploratory survey that were carried out on behalf of the United States Agricultural Information Network (USAIN)1 Technology Trends Interest Group are presented in this paper. The major purpose of the study was to compile a list of current, forthcoming, and newly developed information technologies that are being used in agricultural library collections. One of the secondary goals was to find people who would be willing to act as a resource to help encourage cooperation and the sharing of knowledge on certain technologies.

The knowledge that pertains to agriculture is a significant component that interacts with the other aspects of production. It is arguable that the productivity of these other components, such as land, labour, capital, and management competence, may be increased by information that is pertinent, trustworthy, and helpful. Farmers are able to improve their decision-making by using the information that is provided through extension1, research, education, and agricultural organisations. Because of this, it is necessary to have a solid understanding of the inner workings of a certain agricultural information system in order to successfully manage and enhance it (Demiryurek et al., 2008).

According to the results of Maningas et al. (2000), having knowledge in the hands of farmers indicates that those farmers are empowered since they have control over the resources at their disposal and the decision-making processes involved. They pointed out that if the distribution system of key information and technology services is effective and efficient, it makes it easier for customers to play the crucial role of decision-making that leads to improvements in agricultural production, processing, trading, and marketing. According to the Food and Agriculture Organization (FAO), information is very important for rural development because increasing agricultural productivity is crucial to improving the income of farming communities.

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As a result, improving the income of farming communities will depend significantly on increasing agricultural information. To achieve sustainable agricultural growth, the focus should be placed less on the material inputs themselves (such as seeds and fertiliser), and more on the people who utilise those inputs. In order to accomplish this goal, it is necessary to place primary emphasis not only on human resources in order to promote enhanced knowledge and information exchange on agricultural production but also on suitable communication techniques, channels, and instruments. New agricultural technology may originate from a variety of sources, including research organisations, universities, commercial firms, or even from individual farmers. It is intended that agricultural information and knowledge delivery services (such as extension, consultation, business development, and agricultural information services) would educate their customers about newly developed technology (people who are involving in agriculture). The purpose of research and advisory services is to provide information and advice that is highly precise, detailed, and objective in the areas of management and technology in direct response to the requirements of their customers.

RESEARCH MYTHOLOGY

This chapter describes how Information Literacy Competency (ILC) was assessed among PG students in the six agricultural universities of North India.

Nature of The Study

This research used an empirical approach to its subject matter. In the empirical research, the ILC of PG students was evaluated by the use of the survey technique of research. Written questionnaires were used in the research that was carried out. As a result, quantitative data collection was carried out. At first, it was thought that it would be a good idea to conduct a survey with one hundred students (fifty from each university's MSc.-I and MSc.-II programmes).

Data Collection Instrument

The questionnaire and research instrument that was prepared for this research is based upon the Information Literacy Standards for Science and Engineering Technology (ILSSET) that were developed by the Association of College and Research Libraries (ACRL 2006) in collaboration with the American Library Association. This is due to the fact that agricultural universities are scientific and technical 38 institutions (ALA). There are five information literacy standards and twenty-four performance indicators included in the paper that was created by ACRL (2006) and titled ILSSET. ILSSET foresees a number of different learning outcomes as being included as parts of the performance metrics.

Table 1 Information Literacy Standards For Science And Engineering Technology (By ACRL 2006) In Summarised Form

Standard	Description

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Standard I (4 PIs)	Determining the nature and extent of information need
Standard II (5 PIs)	Effective and efficient acquisition of information
Standard III (7 PIs)	Critical evaluation of information; and if need arisesthen, modifying research process and seeking further help
Standard IV (6 PIs)	Effective use of information sought – within ethical, legal, technical, economic and social settings
Standard V (2 PIs)	Understanding that IL is vital to Lifelong Learning and keeping oneself up-to-date with new developments in the subject matter / discipline
(Total 24 PIs)	PIs = Performance Indicators

During the course of this inquiry, a research instrument known as the Scale of Information Literacy Competency for Agriculture Postgraduate Students (SOILCAPS) was designed in order to evaluate the ILC of postgraduate students studying agriculture at various institutions. It was created with the express purpose of evaluating IL abilities using two separate surveys. The study instrument consists of preliminary inquiries on a variety of factors, including universities, classes, gender, and so on, amongst others. SOILCAPS is divided into two portions for the purpose of evaluating ILC: Part A (scoring items), and Part B. (Non Scoring items). Part A of the scoring items consists of a total of 80 items, with 55 questions (bundled into 38 questions) requiring multiple choice answers and 25 questions requiring true or false responses respectively (total 80 questions of 1 mark for each correct answer). ILC is evaluated using two different subscales by the items in Part B that are not scored: I Information Handling Skills (14 items): assessed on a five point Likert type scale where 1=Strongly Disagree, 2=Disagree, 3=Neither Agree Nor Disagree, 4=Agree, and 5=Strongly Agree; and (ii) Usage of Information Sources (18 items): assessed on a five point Likert type scale where 1=Never, 2=Rarely, 3=Sometimes The fact that the splitting of the various elements of SOILCAPS is not expressed as such in the research instrument itself is something that is brought up in this section. Please find an attached copy of the questionnaire in the form of Appendix – A (Questionnaire for Students – SOILCAPS).

Table 2 ILSSET Standard Wise 80 Scoring Items

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Standard	No. of Questions	Percentage
Standard - I	25	31.3
Standard - II	17	21.3
Standard - III	22	27.5
Standard - IV	10	12.5
Standard - V	6	7.5
Total	**80**	**100.0**

Attempt is also made to categorise the 80 scoring questions in three broad topics – Sources, Research, and ICT (Table 2). Out of 80, there are 42 questions (52.5 percent) on Sources. The topic of Research has 27 (33.8 percent) questions along with 11 questions (13.8 percent) on ICT.

DATA ANALYSIS

This section provides details on the preparatory questions that will be asked during the SOILCAPS. In the first round of the survey, the number of students who had finished each of the different types of classes is listed in Table 3. Following the completion of the LIS course by 87 (22.4 percent) students, the TWC course was taken by 90 (23.1 percent) students. In Round-I, there were a total of 64 students who completed the Statistics course, 20 students who completed the Agricultural Research course, and 52 students who completed the IPR course. There were still others who needed to finish these classes.

Table 3 Completion of Various Courses in Round-I (N=389)

Course Name	Completed		Not Completed	
	Number of Students	Percentage	Number of Students	Percentage
Library & Information Services	87	22.4	302	77.6
Technical Writing & Communication	90	23.1	299	76.9

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Intellectual Property Rights	52	13.4	337	86.6
Agricultural Research	20	5.1	369	94.9
Statistical Methods	64	16.5	325	83.5

Table 4 Completion of Various Courses In Round-Ii (N=377)

Course Name	Completed		Not Completed	
	Number of Students	Percentage	Number of Students	Percentage
Library & Information Services	195	51.7	182	48.3
Technical Writing & Communication	121	32.1	256	67.9
Intellectual Property Rights	124	32.9	253	67.1
Agricultural Research	46	12.2	331	87.8
Statistical Methods	202	53.6	175	46.4

During the second Round-II, LIS was finished by 195 students, which is a 51.7% completion rate, while TWC was finished by 121 students (32.1 percent). IPR was completed by 124 students (32.9 percent), followed by Agricultural Research completed by 46 students (12.2%), and Statistics completed by 202 students (53.6 percent). In the initial survey, students were asked where they had learned to use computers; the results are presented in table 3. 143 students, or 36.8 percent, had learned at home, 71 students, or 18.3 percent, had learned from friends, 55 students, or 14.1 percent, had learned at a university, and 48 students, or 12.3 percent, had learned at private institutions. The table provides more than one alternative for the location of the educational experience.

Table 5 Place Of Learning Computers In Round-I

Place of Learning Computers	Number of Students	Percentage
At Home	143	36.8

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From Friends	71	18.3
At this University	55	14.1
Private Institute	48	12.3
Home & University	22	5.7
Home, Friends & University	9	2.3
Home & Friends	8	2.1
Home & Institute	8	2.1
Friends & University	5	1.3
Friends, University & Institute	3	.8
All 4 options	3	.8
Home, University & Institute	2	.5
Other (all school)	12	3.1
Total	389	100.0

Table 6 Learning Computers In Round Place Of -I

Place of Learning Computers	Number of Students	Percentage
At Home	158	41.9
From Friends	56	14.9
At this University	55	14.6
Private Institute	39	10.3

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Home, Friends & University	15	4.0
Home & University	14	3.7
Friends & University	11	2.9
Home & Friends	3	.8
University & Institute	3	.8
All 4 options	2	.5
Home & Institute	1	.3
Home, University & Institute	1	.3
Other (all school)	19	5.0
Total	377	100.0

Table 7 shows where students had learnt to operate computers in the second survey. 158 (41.9 percent) had learnt at Home, 56 students (14.9 percent) from Friends, 55 (14.6 percent) at the university and 39 (10.3 percent) at private institutes. More than one option for place of learning computers is available in the table.

Table 7 Place of Learning Internet in Round-I

Place of Learning Internet	Number of Students	Percentage
At Home	128	32.9
From Friends	89	22.9
At this University	80	20.6
Private Institute	36	9.3
Home & University	16	4.1
Friends & University	9	2.3
Home, Friends & University	7	1.8

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Home & Friends	6	1.5
Home, University & Institute	5	1.3
Home & Institute	4	1.0
Friends, University & Institute	2	.5
All 4 options	2	.5
Other	5	1.3
Total	389	100.0

Table 7 shows where students had learnt to use Internet in the first survey. 128 (32.9 percent) had learnt at Home, 89 students (22.9) percent) from Friends, 80 (20.6 percent) at the university and 36 (9.3 percent) at private institutes. More than one option for place of learning to use Internet is available in the table.

CONCLUSION

The outcomes of the study are discussed in this chapter, along with a summary of the findings and a conclusion to accompany them. In addition to that, several recommendations for more research are given. Due to the fact that the second survey was carried out at the beginning of the second semester, it is important to point out that the majority of postgraduate students in both surveys (LIS, TWC, etc.) had not yet finished the courses that were being asked about. This can be seen from Tables 1 and 2. (trimester in the case of IARI). In both rounds of the study, Tables 3 and 4 revealed that more over one-third of PG students had gained knowledge on how to use computers in their own homes. When it came to becoming familiar with the Internet, Table 5 revealed that about one-third (128 out of 389 pupils, or 32.9 percent) of respondents learned how to do so at home in the first survey. The results of the second survey are presented in Table 4.6, and it was found that more than one-third of pupils learned how to use the internet at home. Learning how to use computers and the Internet (after doing so at home) was then followed by instruction from their friends and the faculty at the institution where they are currently enrolled.

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