ABSTRACT

The role of Information Technology (IT) in universities and academic teaching departments is shifting dramatically from traditional chalkboard classroom i.e. chalk, walk and talk to an instructional aid i.e. Computer-Assisted Instruction (CAI). Educators are increasingly aware of the need, and concomitant demand to have skills to access the information to enable them to continue learning through their careers. This study explored the use of Information Technology in academic teaching departments of Library and Information Science (LISc) in universities of Iran. In particular, this research probes the use of Information Technology by Iranian LISc faculty members and students.

OBJECTIVES OF THE STUDY

Objectives of the study are: i) To study the status of IT utilization among Iranian LISc faculty members and students; ii) To identify users and non-users of IT among Iranian LISc faculty members and students; iii) To find out the purposes of IT use among Iranian LISc faculty members and students; iv) To explore the possibilities of various IT based services/systems, used by Iranian LISc faculty teachers and students; v) To explore the possibilities which help and motivate faculty members and students to increase use of IT; vi) To suggest/recommend ways and means to overcome problems faced by faculty members and students.

ASSUMPTIONS

Assumptions of the study are: 1. More than 80% of LISc faculty members use IT in Iran. 2. More than 70% of LISc students use IT in Iran. 3. Highly qualified faculty members will join LISc academic departments with IT qualifications and trainings in Iran.

THE SCOPE AND LIMITATIONS

The scope and limitations of the study are: 1. This study includes only LISc departments in universities of Iran. 2. The study covers only LISc faculty members and LISc students in Iran. 3. The study restricted only to full time LISc faculty
members and full time LISc Bachelor, Master and PhD students in Iran. 4. The
study place Pune (India) and data samples were from Iran, consequently leads to
various limitations.

RESEARCH METHOD

This study was carried out on the use of Information Technology in academic
departments of library and information science in universities of Iran. It was
conducted on LISc faculty teachers and a group of LISc students in academic year
2004 and 2005. Keeping the above points in consideration, the circumstances and
objectives of the study descriptive–analytical method was used as the research
method. Questionnaires, interviews, observations were employed as the tools for
data collection. However, indirect studies of records were adopted for collection
and analysis of relevant data to supplement the data collected through
questionnaires to enhance and strengthen its reliability and to gather, some
additional information on specific aspects of IT utilization by Iranian LISc faculty
teachers and students. Two sets of questionnaires were designed and distributed
among the samples of the study. Collected data was analyzed by Statistical
Package for Social Science (SPSS).

POPULATIONS AND SAMPLES

The total population was faculty members-180 and students-7000. 180 faculty
members and 500 students were selected as the study samples and questionnaires
were distributed among them. 120 (66.6%) faculty members and 390 (78%)
students completed the questionnaires and returned them back.

ORGANIZATION OF THE STUDY

This study consists of six chapters: Chapter-I: This chapter deals with the
general introduction, Iran and educational system, Library and Information
Science education in Iran, university libraries in Iran, IT in Iran, the need and
significance of the study, statement of the problem, objectives of the study,
research questions, assumptions, scope and limitations, research method,
definitions of major terms. Chapter-II: Deals with review of the literature out of
Iran (international senario) and Literature review in Iran (national senario)

Chapter-III: Describes the research methodology and includes introduction, method of research, analysis of the data, generalization and interpretation, preparation of the report. Chapter- IV: Deals with various components of Information Technology and includes introduction, historical development of Information Technology, definition of Information Technology, objectives of Information Technology, components of Information Technology viz., computer technology, communication technology (telecommunication technology, optical communication technology, satellite communication technology, computer-communication technology), CD and DVD technology, reprography, micrographic and printing technology, Impact of IT on ICL and conclusion. Chapter-V: Contains, Presentation, findings, analysis and interpretation of the data. This chapter handles the results of the questionaires survey which including data analysis. It is explained in descriptive statistics (frequency and percentage) and inferential statistics (Chi-Square Test or $X^2$) with tables and graphs. Chapter-VI: This chapter contains a brief summary, major findings, suggestions, recommendations, implications and conclusions. At the end of the study, bibliography and the appendices include faculty members and students’ questionnaires, list of LISc departments in Iran and Krejcie & Morgan’s determining sample size for research.

MAJOR FINDINGS

1. It was found that 95% of Iranian LISc faculty members and 87% of students used Information Technology (IT). 2. It was observed that unfamiliarity, inaccessibility and lack of time were the top three reasons of not using IT by LISc faculty members and students. 3. It was revealed that in teaching activities 38% (maximum) of LISc faculty members used IT for classroom lectures, while 18% used for workshop presentations. In research activities maximum (43%) of faculty teachers used IT for writing books/articles/papers, conference presentations and doing research works. In case of students Information seeking, doing research works and leisure time were their purposes of using IT. 4. It was found that faculty teachers used computer (94%), Internet (94%), Intranet (45%), online data banks
(80%), offline databanks (87%), CD & DVD (81%) and multimedia (62%). In case of students it was revealed that they used computer (88%), Internet (87%), Intranet (46%), databanks (65%), CDs & DVDs (76%) and multimedia (57%). 5. It was found that among the information networks (i.e. Internet, Intranet and LAN) Internet is the most popular network being utilized by LISc faculty members (94%) and students (87%). 6. It was found that among the Internet services, web and e-mail are the two top services being utilized by faculty members and students, while video-conference has been the least used services among faculty members & students. 7. MS Office (Power point, Word and Excel) and SPSS were the most popular software tools being utilized by LISc faculty members and in case of students it was the Word software. 8. LISA and ERIC were the two databanks, which reported the most used databanks (57.5%) among faculty members, while in case of students, LISA, BIP and Serial Directory.9. Pars Azerakhsh and Seemorq (software for libraries in Iran) were the two wide used library software among faculty teachers and students. 10. It was observed that only 18% of faculty members had academic paper/article on the Internet. 11. Easy access, teaching how to use IT and introducing IT have been the most important factors reported by faculty members and students as the helpful encouragements in using IT. 12. Inadequacy of computers, printers, software, databanks and supplies, technical support, outdated capabilities for hardware, software, Internet connections and networking, inadequate training and experience for faculty members, inadequate funding and budget to purchase new IT facilities, lack of projection systems and audio visual aids in classrooms, were the main problems reported by faculty members. 13. Inaccessibility and dis-connectivity to the Internet, censorship and filtering of the Internet sites by Government, inadequacy of computers, impracticality of faculty members’ teaching method, faculty teachers’ outdated classroom presentations, old syllabus and old curriculum were the important problems reported by students.

**SUGGESTIONS**

1. It is suggested that access to IT for the faculty members and students must be facilitated at the desirable extant. 2. It is proposed that data access speed communication (data routes and bandwidth) should be increased.
3. It is advised that IT facilities should be provided in each and every academic departments of Iranian universities. 4. It is proposed that LISc academic departments classrooms should be equipped with advance audio-visuals aids and projection systems. 5. It is essential to organize IT based refresher course from time to time covering latest developments of IT based services.

RECOMMENDATION

1. The efforts demonstrated in this study are restricted to IT utilization in LISc depatments and does not cover other academic departments. Hence, it is recommended to investigate IT utilization in other academic departments too in Iranian universities. 2. It is recommended to include IT in LISc curriculums in the universities of Iran and detailed study to be carried out. 3. Future depth studies on various aspects of IT viz. Computer, communication, database creation/access), network based services, multimedia (hypermedia), etc should be carried out separately in depth and is also recommended herewith.

CONCLUSIONS

The findings and observations in the present study underscore the need to offer more learning opportunities for faculty members and students to demonstrate, how IT and instructional technology can be applied in their works in LISc academic departments in Iran. LISc academic departments need to ensure teaching staffs, support and effective classroom capacity for the use of new technologies specially IT. It will not only affect the relationship among the LISc professionals but also budget and curriculum development. Consequently, higher education system must also be modified to suit the next generation of faculty members in regard to professional demands and expectations of the students. LISc professionals must be more than custodian of knowledge/information and have to play an important role as information /knowledge manager/consultant. There are intellectual practical problems of social significance and complexity. New IT constitutes new means new challenges, better opportunities not new ends. Consequently, we can and should re-think and redesign everything, as technology changes, what is feasible.