Abstract
This study attempted to investigate the capabilities of the Iranian academic libraries in meeting the information needs of handicapped students. The study aimed to explore what information sources and information services especially designed for handicapped people are available in academic libraries. It also attempted to find out how these libraries manage to help handicapped students have easy access to these information sources and services. To collect the data, a checklist with 43 questions was developed and distributed by mail among 120 universities.

Findings
- The results showed that the handicapped students are deprived of services and facilities in academic libraries. Special services to handicapped students are almost non-existent. Thus, it is essential to rethink and reconsider academic libraries in every aspect, from designing buildings to developing information resources, and to structuring information services. This research is unique of its kind in Iran and sheds light on special groups of users who are forgotten in academic libraries of Iran. Academic libraries, Iran handicapped students, Library resources, Library services/special groups of users.

Introduction
Like other living organisms, human beings encounter perils during their lives, even during the time before birth. These dangers may threaten the health, disable, or even cause the death of people. In general, the origins of disabilities are: war, mal-nutrition, poverty, and lack of public health.

Nevertheless, incident is a phenomenon which has caused serious injuries and losses of lives due to the industrialization of societies. Many job processes in industrial organizations have the potential to cause catastrophic outcomes in workplaces (Van As, 2002).

There are out of control factors which cause incidents (Dewer & Olson, 2002). Sherry (1992) mentions five factors mainly associated with incidents as follows:
1. Psychological factors
2. Environmental factors
3. Agronomy
4. Body (physical) factors
5. Stressors

Furthermore, despite the fact that scientific and technological innovations have enabled man to overcome the origin of many disabilities, e.g. diseases, new factors such as more travels, longer distances traveled, speed in doing jobs, and daily stresses have emerged as new waves of dangers or incidents that threaten people and result in disability. These days, 80 per cent of handicapped people of the world live in the underdeveloped or developing countries. There are more than 500,000,000 handicapped individuals among the world population. It is reported that about 16 percent of the population of the United States, Canada, and the European countries suffer from some kind of disability.

In 1992, 13 million job accidents occurred in the United States which is estimated to cost over 145 billion dollars. About 250 million job accidents are reported each year. These incidents lead to the death of 1.2 million workers worldwide.

Recent statistics show that 2,600,000 to 2,800,000 handicapped persons live in Iran among whom 2 per cent are mentally retarded. In a period of 13 years from 1993 to 2005, more than 2,000,000 handicapped people have been identified and/or added to the handicapped population of Iran.

In Iran, about 30,000 people are killed in car accidents on roads each year. These accidents cost over 600 million dollars. Naturally, the numbers of people who are seriously injured in car accidents or incidents in
work places are considerably more than the number of those killed in accidents. A large percentage of seriously injured people will finally become handicapped.

Because of the above mentioned reasons, and due to the war between Iraq and Iran, students with a kind of physical disability or deficiency form part of student population at the universities of Iran. These students are among the disadvantaged or differently abled library users. Hence, the present study attempted to investigate how academic libraries in Iran are prepared to serve handicapped students to meet their information needs.

The study focused on three categories of handicapped students as follows:
- blind or partially blind
- deaf or partially deaf (with hearing impairment)
- people with mobility difficulties

Review of the Literature

Needham (1977) believes that libraries need to find new avenues and change their traditional policies, if they want to serve handicapped students. Bowe (1978) in his book Handicapping America: barriers to disabled people focused on architectural barriers on the way of handicapped people in libraries.

Velleman (1979) claims that it is of special importance that librarians and reference staff understand the physical limitations and information needs of students with disabilities.

According to Huang (1989), the United States passed a law in 1973 in which focus on equal rights for handicapped students to benefit services at higher education institutes is evident.

During the last two decades, information needs of handicapped people in regard to new information technologies have been considered. Hatter (1999) reported about making the web user-friendly for the blind and reported that in 1998 I.B.M. introduced talking version of “Home Page Reader” to help blind students have access to information sources more effectively.

Kavanaugh (1999) reported that VISUNET, a Canadian National network for the blind, has been established to help the blind to meet their information needs. Miller and Erazo (2000) list the websites which give information about the technologies which help handicapped people in using the libraries.

Williamson and Schaefer (2000) believe that inadequate research exists about information behavior of people with disabilities (including the blind).

In Iran, research on information needs and behavior of the handicapped people in libraries, dates back to 1970s, however, the published works in this subject are very few. Nevertheless, some librarians have obtained good experience from participating in international meetings. During the last two decades, some Masters students wrote theses on handicapped students in academic libraries in Iran. By and large, the results of the research conducted in Iran show that:
- No official statistics is available about the number and distribution of handicapped students in universities.
- Among different types of handicapped students, blind students have more problems in accessing academic libraries.
- Students with other disabilities such as hearing impairment or mobility problems have not been considered.

Surprisingly, most studies undertaken about handicapped students in academic libraries in Iran have been conducted by one librarian, Mrs. Arjmand. She has written several articles and one book on the topic. The book published in 2001, suggested the establishment of a national information network in Iran to serve the handicapped people.

Methodology

This study is of a descriptive type and uses survey method to answer the two basic research questions as follows:

1. What is the overall status of handicapped students in academic libraries in Iran?
2. What facilities and services are there available in academic libraries of Iran to serve handicapped students?

The population under the study consisted of all academic libraries in the universities governed by the Ministry of Science, Research, and Technology, and the Ministry of Health, Treatment, and Medical Sciences. At the time of this study in 2006, there were 65 universities under the supervision of the former ministry, and 55 medical universities governed by the latter one.

Thus, 120 checklists along with stamped and addressed envelopes were delivered to the target population by mail. After two follow-up letters, a total of 110 forms were returned. Among these, 8 forms were incomplete, hence, were not used in the analysis. Thus, 102 checklists were used in the analyses; and the response rate for this study is 85 percent.

Data Collection Tool

To collect the data, a checklist based on the items pointed out in the literature was developed. To ensure the reliability of the tool, its content validity was measured. For this purpose, the items were reviewed and judged by a group of university teachers in library and information science departments, some academic librarians, as well as some experts who work in social
and government organizations dealing with handicapped people. Thus, the researcher made sure that the content includes all aspects of the subject under the study (Cooper and Schindler, 2001).

The checklist consisted of several sections, namely:

- A note explaining the purpose of the study, how to answer the questions, and how to return the form.
- General information about the library, such as, the year established, number of members and handicapped members, number of information sources/materials especially designed for handicapped students.
- Questions about the library policy about information sources and services offered to handicapped students.
- Questions about facilities, and signs and symbols which facilitate easy access to library sources and services.
- Questions about the relationship between the library and government and/or non-government institutions responsible for serving handicapped people.

On the whole, there were 43 Yes/No questions, of which some had subsets and thus respondents were asked to answer 102 items of information.

Although it was also intended to interview some high-ranking officials, the researcher could only interview two experts dealing with handicapped students.

Findings
The present study attempts to explore what is already available in academic libraries in Iran to help handicapped students find the information they need. Therefore, the findings are reported almost in the same order that the items appeared in the checklist.

- Two universities (1.96%) reported that they have a formulated policy to serve handicapped students.
- Only one university (0.98%) considers handicapped students’ needs in its annual budget.
- In three universities (2.94%), there are trained librarians to serve handicapped students.
- Two universities (1.96%) have training programs to teach their staff about handicapped students’ needs.
- Two universities (1.96%) plan library tours for students with mobility problems, and only one university manages such programs for the blind and deaf students.
- Only one university (0.98%) provides special facilities for the handicapped to access information sources.
- Among the respondents, 13 universities (12.74%) offer reference services to handicapped students by phone.
- Three universities (2.94%) display new library equipment and tools and teach handicapped students how to use them.
- Eleven universities (10.78%) lend teaching aids to handicapped students.
- Only one university (0.98%) has provided manuals/guidebooks for handicapped students to use special materials available in the library.
- Three universities (2.94%) have computers, software, and programs especially designed for disabled students.
- Only one university (0.98%) has designed/purchased special software for the handicapped students.
- Only one university (0.98%) uses special signages and symbols in the library to direct handicapped students.
- Ten universities (9.80%) have lifts which can be used by handicapped students.
- Five universities (4.90%) have lifts especially designed for handicapped students.
- Two universities (2.94%) have allocated special exits for the handicapped students to leave the library in emergencies.
- Eight universities (7.84%) have appointed staff or volunteers to help handicapped students in using the library resources or services.
- Only one university (0.98%) is ready to deliver information/materials to handicapped students at homes or dormitories.
- Only one university (0.98%) has allocated an area in the library to serve handicapped students.
- Three universities (2.94%) reported that they have collaboration with government and/or non-government organizations dealing with handicapped people, and that they benefit the intellectual as well as material assistance of these organizations.
- In terms of tools and equipment necessary for using the library resources and services, the results showed that among ten items mentioned in the checklist, three important items, namely, automatic browsing machine, Braille typing machine, and Braille copier, were not available in any universities. Other tools such as magnifying glass, tape-recorder, talking-books, head-phones, and tape-copier machines were available in few universities, ranging from one to maximum eight universities, out of 102 respondents.
- Four universities (3.92%) reported that they have
students who voluntarily read books and journals for the blind students.

- Only one university (0.98%) has managed a special place in the library for voluntary reading for the blind.
- Only one university (0.98%) prepares guidebooks to library (library booklet) in audio and video tapes.
- In terms of talking devices to “show” the library exits, public phones, and stairs, two universities (1.96%) have prepared such services.
- Thirteen universities (12.74%) reported safe paths in the library for the handicapped.
- The results for easy access to different parts of the library building are as follows:
  - Easy access to library entrance, 23 universities (22.5%)  
  - Easy access to lavatories and toilets, 15 universities (14.70%)  
  - Easy access to public phones, 14 universities (13.72)  
  - Easy access to collections (books and journals), 23 universities (22.5%)  
  - Easy access to computer stations, 21 universities (20.58%)  
  - Easy access to loan desk, 35 universities (34.3%)  
  - Easy access to reference department, 27 universities (26.47%)

Despite the importance of some items that academic libraries need to consider, the results show that these items are completely neglected in academic libraries in Iran. For instance, none of the libraries reported the followings:

Library committee with a handicapped member, subscription of databases designed for the handicapped, special bibliographic instruction or information literacy courses, Braille information sources, Braille reference sources, Braille map of the building, tapes to guide students how to use the building, Braille or talking tapes to use the lifts, Braille guides (maps) pasted close to the library entrance, library catalog and newsletter in Braille, and talking newsletter.

Discussion and Conclusion
The findings of the present study shows that handicapped students are deprived of their social rights in academic libraries in Iran. It may be due to the overall attitudes towards the libraries and handicapped students in this country. Libraries are a part of a larger institute and are affected by macro policies of the universities.

The physically handicapped students will suffer from educational and occupational discrimination if public buildings, such as libraries, are poorly designed.

The findings of the present study revealed that handicapped students are deprived of their rights—so that only 23 out of 102 libraries (22.5 percent) are easily accessed by handicapped students. Lack of physical access is not limited to the library entrance; this also involves lavatories and toilets, public phones, movement within the library building, safe paths in the library, emergency exits, and lifts as well.

The inaccessibility of buildings has been the most serious barrier to their enjoying freedom of movement. Most libraries have been so constructed as to virtually prevent the physically handicapped from gaining entrance. Or, where they can actually get inside the library, the interior planning has allowed them little freedom of movement. Progress from floor to floor, or even on the same level of the building is virtually impossible for those suffering from movement problems. Hence, many physically handicapped young people have been prevented from having a proper education. The legal requirements, together with supportive regulations mean that educational institutions should be accessible to the physically handicapped, including the ambulant disabled walking with frame or stick, and those in wheelchairs.

The exterior of a library building should display, if it is merited, the international symbol of accessibility. It should also be clearly marked with letters of sufficient size to be visible from a reasonable distance. These letters to be illuminated at night.

On an academic campus, the location of the library should be signposted. Directional signs in the immediate neighborhood of the library will help the hearing-impaired to find the library without seeking assistance. This will not only provide them with a sense of independence, it will also be helpful to those with hearing-impairment who may have communication difficulties.

Handicapped students have difficulty in finding directions in the library as there is no suitable signage or symbol to direct them. The percentage of the libraries with necessary signages in many items is so low that it seems to be almost non-existent. These percentages for different audio-visual, electronic, and printed finding aids starts from 0.98 per cent and increases gradually, up to 33.3 per cent in one item only.

The results showed that in practice, universities have not considered handicapped students in their policies, thus only two universities (1.96 %) reported that they have a clear and formulated policy to serve handicapped students, and 1.96 per cent teach their librarians how to deal with these students.

In the majority of the libraries it is impossible for handicapped students to easily access the collections or the workstations. Apart from the building design,
and layout and structures of pathways, handicapped students face difficulties in the interior. Those in wheelchairs are not able to gain access to all public areas without leaving their vehicle.

The severely partially sighted will obviously have difficulty in using the library if it is poorly lit. Deaf patrons, who rely heavily on their sight, have difficulty in finding the material they need and lip-reading when communicating with the staff.

The hearing-impaired will often be inhibited from approaching the library staff to ask for assistance. The library should, therefore, be comprehensively guided by locational signs and directional markings to reduce the need for consulting staff.

The routes to and the location of emergency exits should be clearly marked. It should be possible for visually handicapped patrons to “read” the signs by touch. Alarm bells should be loud enough to exceed the normal sound levels of different parts of the library and they should be fitted with flashing lights to alert those with hearing difficulties.

Among the respondents, only eight universities or 7.84 per cent have volunteers to help handicapped students and only one library (0.98 %) is ready to deliver information/materials to the students’ homes or dormitories.

Although, academic libraries in Iran are not well prepared to serve handicapped students, they are expected to make good connections with organizations and institutions outside the campus. However, the results are not promising; two universities (1.96 %) benefit from intellectual and financial assistance of the organizations in the country. In some cases, the percentage increases to 2.94 or three universities.

As Golbaghi (1994) noted, 80 per cent of 7,700 members of Issargaran Library (Library for warriors) study at the universities. She adds, among the 5000 warriors with severe vision damages, 700 are totally blind. These are the young men who participated in the eight-year long Iraq-Iran war. Surprisingly, none of the libraries investigated had Braille information materials.

However, it should be noted that publishing books in Braille is much more expensive than an ordinary book; 10 to 40 time as much an ordinary book. Moreover, academic libraries suffer from lack of budgets. Thus, to acquire such expensive documents, libraries must be funded adequately. Worse, libraries are not able to make available OPACs and print catalogs which are the main tools for accessing information. Braille or talking or video catalogs are non-existent in academic libraries in Iran.

Despite the fact that many high positioned Iranian officials insist on equal rights of the handicapped people and announce their support in press conferences, but there is no indication of a national intention and active measure which assure better days for the handicapped students.

In sum, handicapped students are neglected in academic libraries; they seem to be a lost generation deprived of their essential rights. No one seems to be responsible for their problems in universities, so much so that even finding the number of handicapped students studying at the universities and their distribution is a laborious task, if not impossible.

Suggestions
The measures recommended to be taken are given below:

1. To pass a law to comprehensively support handicapped people.
2. To use the mass media in order to draw the attention of the country’s authorities as well as the public to the rights of handicapped people;
3. To establish handicapped students guild at local and national levels;
4. To establish special libraries for handicapped people in each state capital;
5. To establish national information network specially designed for handicapped people;
6. To acquire some important textbooks in the formats suitable for handicapped students;
7. To train and employ librarians to serve handicapped students;
8. To compile Braille and talking versions of a national union catalog.

References
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