VIRTUAL LIBRARY OF THE MEDICAL UNIVERSITY OF VARNA – IDEOGENESIS, PRESENCE, AND FUTURE

P. Mileva, D. Tomov, Zh. Radkova, G. Stoyanova, Zh. Todorova, R. Kuyumdzhieva

The Library and Information Service, Prof. Paraskev Stoyanov Medical University of Varna

ABSTRACT

The Library and Information Service at Prof. Paraskev Stoyanov Medical University of Varna has passed through several stages in its historical development. They results obtained are related with the timely recognition of the necessity of introduction in the Library of the new information technologies. Thus the library staff faces the requirements of the information society of the new millennium. The enthusiastic efforts of the governing body of the library are directed to the permanent improvement of information retrieval in the university medical libraries in Bulgaria, the coordination of their computerization, and the creative enrichment of the forms and methods of information service of the teachers and students. Modern audiovisual means are used along with interactive user's education for independent search in the foreign databases in the library and through Internet. The electronic-mail connections help delivering the documents to the readers in the university departments and clinics after scanning the paper information sources in our library and in other libraries. The electronic library catalogue of books is already accessible through Internet. Our idea of a modern virtual library opened to the future and preserving the rich traditions of our University becomes step-by-step a fascinating reality.

Key words: Medical Library and Information Service of Varna, virtual library, electronic catalogue, electronic information resources, databases on CD-ROM, Internet

University libraries in the whole world are primarily designed to store and to offer to the public the variety of documents that contain written scholarly communication. In the beginning, librarians used papyrus scrolls and clay slates while nowadays, in the telecommunication era of the information society, along with products of the paper technology, electronic communication means are more and more widely applied. The libraries play a substantially new role as communication environment utilizing not only local, but also regional and international telecommunication networks when providing information service to their users. The principle from the industry of document delivery 'just on time', i. e., when it is needed already replaces the traditional approach to serve 'only in case of demand', i. e., by acquisition and storage of documents primarily designed only to be even looked for and then used. The so-called local access to library funds created in the last decades is transformed into an information meta-structure. The latter is arranged according to disciplines and, at the same time, properly renders an account to the raising interdisciplinary interactions and warrants a local and distant access to the information resources.

Address for correspondence:

*P. Mileva. The Library and Information Service, Prof. P. Stoyanov Medical University of Varna. 55 Marin Drinov St. BG-9002 Varna. BULGARIA
E-mail: library@asclep.muvar.acad.bg*

In its essence, the term 'virtual library' represents a combination of a library with a telecommunication network (3). The true virtual library comprises the construction and usage of the following main modules:
- transfer of files containing textual and graphic information;
- electronic mail;
- transfer of data in the form of a multimedia system;
- performance of videoconferences, videoconsultations, videomeetings, etc.;
- partners' visualization by means of super computers, and
- maintenance of computerized service in a regimen of a local network (intranet).

Besides the interrelation between library computerization, on the one hand, and education and research, on the other hand, should be realized after the following block schedule:

A. Education
B. Research and
C. Publishing/Library.

The 'A' block includes lectures, auditory and extra-auditory activity, a new equipment of classrooms, new forms and means of teaching materials.

The 'B' block includes the preparation and presentation of reports and communications at scientific congresses, symposia and conferences, joint research activity, new laboratories and a new equipment of these laboratories.

The 'C' block includes the publishing of electronic journals

books, electronic dissemination of manuscripts, rints and reprints, etc.

ıe recent decade of democratization of socio-political in Central and Eastern Europe, an essential improve- t of the computerized infrastructure in the Bulgarian ersities has been achieved. In the university buildings ıselves, most students have permanently free individual ss to Internet. electronic library catalogues, videotape multimedia projections, etc.

Library and Information Service at Prof. Paraskev anov Medical University of Varna has passed through ral stages in its historical development. They are related the timely recognition of the necessity of introduction e Library of the new information technologies such as lectronic publications of the Institute for Scientific In- ation (Philadelphia, PA, USA) *Current Contents on ette* and *Current Contents on Diskette with Abstracts*, :ctively. already in the year of their appearance on the d information market (1). A leading position among ıedical university libraries in Bulgaria has already been ›ied by our library (2) because it effectively uses a se- ›f modern information resources.

s briefly mention some of them:

ıe electronic version of *Current Contents*, the 'Life ciences' series (*Current Contents on Diskette*) was ıtroduced in 1989;

fEDLINE on CD-ROM through OVID since 1992; ıataTrek and GLAS under Windows NT library :twork and electronic catalogue;

ochrane Library, ProQuest Medical Library, and pToDate data bases on CD-ROM;

edical videotapes from the USA and Switzerland;

edical textbooks, atlases, journals and congress oceedings on CD-ROM;

tellite Internet connection since 2002. etc.

ınthusiastic efforts of the governing body of the library rected to the:

permanent improvement of information retrieval in the medical university libraries in Bulgaria;

coordination of their computerization, and

) creative enrichment of the forms and methods of information service not only of the teachers, but also of the students through audiovisual means and interactive user's education for independent search in the foreign databases accessible in the library and through Internet, etc.

lividualized students' and young teachers' training in ıation retrieval is currently carried out in the library al-computer halls.

ectronic-mail connections with the other medical li- in Bulgaria are widely used to deliver scientific doc- ; to the users. The staff members in the clinics and ıospital departments receive the electronic versions red documents after scanning the paper information ;. The electronic library catalogue of books is already ble through Internet. Soon, the official publications Jniversity will become accessible worldwide on our ʻebsite. In future, full-text publications will become

available to the users in the University, too. There is a vari- ety of contemporary information services that will gradu- ally be introduced in our everyday practice.

In the recent literature there is a vivid discussion about the present and future opportunities for computerized library and information services in the developed countries. Kreizman (6) describes most aspects of establishing and running a special library including space planning, budget- ing, staffing, collection development, liaising with upper management, marketing the created information centre, working with information technology, managing internal information, and establishing relationships with vendors. Case studies devoted to the Library of the Topography of Terror Foundation, Berlin (Germany), the information cen- ter of Enzyme Technology Corporation in Cleveland, OH (USA), the Ipsen International in London (UK), the Mon- treal Bristol Myers Squibb Company Medical Library in Canada, and the Library of the Einstein Forum in Potsdam (Germany) represent examples of successful information infrastructures (6).

The cost effective impact of modifications in the digital OVID library at Rouen University Hospital in France, i. e., change of access from the Intranet to the Internet or change in editorial policy is assessed (9). It continues to be cost-effective in comparison with the interlibrary loan costs. When electronic versions are offered alongside a limited amount of interlibrary loans, a reduction in library costs is observed.

Nowadays the information industry that has grown all over the world is fed by special libraries (5). There is a raising demand for faster services from these libraries. This can be achieved through the computerization of routine services so that more time is available for information retrieval. The database as a collection of files brought together as a single file accessible by a given set of programs provides biblio- graphical details, abstracts or full texts of published materi- als thus opening up a new concept of information transfer in the process. The databases are an integral part of the infor- mation industry that is a new phenomenon of the XX. cen- tury.

The management of an electronic library is considered on several levels, from internal sectional concerns, such as managing current awareness or electronic reserve collec- tions, to wider campus level concerns like convergence and information strategies (8). The management and leadership challenges are described from a practical point of view cov- ering this vast subject in more detail. The rich experience gained with the electronic libraries in the UK in the field of managing user education and training, technical and special electronic services and library systems and technical sup- port as well deserves a careful examination by Bulgarian li- brary and information specialists.

There exists a dialectic relationship between education and research. That is why it is reasonable to apply the theoretical foundations and practical achievements obtained in the so- cial studies of science dealing with research organization to the organization of university education. One of the essen- tial peculiarities of contemporary scientific activity has

been formulated as the unity of the three "I" – institutionalization, internationalization, and interdisciplinarity (4,11) of science and university education. The united efforts of interdisciplinarily minded scientists warrant both timely and correct solving of complex problems of the world of nature and man and their successful subsequent management. An optimally institutionalized, problem-oriented scientific activity is more effective than a traditional gross discipline-based one. International cooperation occupies a permanently enlarging relative share particularly when expensive tasks should be rapidly solved.

Contemporary and future educational needs impose a timely orientation and adaptation of teacher's own education towards these regularities of development. The specialists and researchers of the new millennium are educated, trained and post-educated today under the conditions of the existing university educational infrastructure that deserves, in most cases worldwide, substantial reconstruction and optimization facing not only national but also international standards of quality.

The usage of an electronic utility for web-assisted teaching such as Blackboard to post handouts and announcements for students is analyzed (7). Students can retrieve the handout whenever and wherever they want. Instructors can reduce the number of stored hard copy handouts (because they can be stored electronically) as well as reduce handout revision time (because they already are stored in electronic form). Although this is not a perfect tool, it has the capacity to improve paper management issues for teachers, improve student access to documents and targeted supplemental learning aids, engage student interest in course content through technology, and encourage students to take responsibility for their own education.

Tannery et al. (10) compiled twenty resource topics into a Website to provide third-year medical students with access to electronic library resources from any community-based clerkship location. These resource topics covered subjects such as hypertension and back pain and linked to curriculum training problems, full-text journal articles, *MEDLINE* searches, electronic book chapters, and relevant Websites. Sixty-nine per cent of the students accessed the Website on a daily or weekly basis. Over 80 per cent thought the Website was a valuable addition to their clerkship. Web-based information resources can provide curriculum support to students for whom access to the library is difficult and time consuming.

For the first time in the UK, Unwin (13) surveyed postgraduate distance learning (DL) students across institutions. In recognition of the increasing size and variety of courses being offered by DL, she examined 350 students at four UK universities and thus looked at the problem in the light of the recent postgraduate expansion. Over the last decade, the number of DL programs offered by several American and European universities has substantially increased (14). Numerous conventional universities are currently involved in postgraduate DL provision, with new courses planned in every subject area. The terms 'distance learning' and 'off-campus' are often used interchangeably in Canada and

in the US. In England, the Open University and the University of London External Degree Program deserve a special attention. More and more 'traditional', campus-based universities have moved towards provision of courses off-campus, either through franchising arrangements with colleges or through DL (14).

That is why the disadvantages and pitfalls of the local university curricula could and should be overcome by the contemporarily designed forms and means of expanding DL. Thus the opportunities of the modern interpersonal communications being extremely enlarged by the continuously growing world-wide-web environment could create much more optimal preconditions for gradual or even at a leap transition from individual and group higher education and training into individual and team research work. In Bulgaria, however, we are still far from the experiences with DL gained in some countries.

The scientific and technical collaboration between the Medical Faculty of the Aristotelian University of Thessaloniki, Greece, and the Medical University of Varna, Bulgaria, started some years ago. In 1999, a telecommunication connection between these institutions was created. The medical telematic network aims at enlarging the existing collaboration between the scientists and medical students from these universities. Greece provides the financial support within the technical aid to the neighbouring countries.

These facilities will be used for improvement of faculty's qualification and optimization of student's graduate and post-graduate education.

The following main services can be provided:
- DL of students and post-graduate students
- Teleconferencing on medical subjects
- Telemedicine activity
- Elaboration and fulfillment of joint projects
- Distant access to electronic libraries
- Electronic mail
- Access to Internet
- Access to university hospital databases, etc.

On January 11, 2000, the first seance of telecommunication bridge between these two university institutions was successfully carried out. An ISDN connection was realized. The Intel ProShare Video System 500 was installed and used. A semiprofessional JVC M camera was made use of. The Information Centre of the Medical University of Varna is currently involved in a series of activities such as videoteleconferencing, preparation of interactive lectures and seminars, multimedia projections, medical videotape projections for small groups of medical post-graduate students, etc. (12).

We believe that in the new millennium thanks to the invaluable help of the Governing Body of the Prof. Paraskev Stoyanov Medical University of Varna and the united efforts of library and information specialists at the Medical University Library and Information Service of Varna our idea of a modern virtual library opened to the future and preserving the rich traditions of our University will be completely realized.

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