

LOCAL AND GLOBAL NETWORKS IN PRACTICE: A CASE STUDY BY THE INFORMATION AND LIBRARY SERVICE, MINISTRY OF FINANCE, LJUBLJANA*

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Abstract: The author presents a description of the establishment and installation of the Information and Library Service computer network of the ministry of Finance and places it in a context of library standards, the existing information system, the information infrastructure and connections with other databases and networks in Slovenia. She also speaks about the use of the local network which enables access to information and library services provided by the global network.

Key words: information system, information infrastructure, local network, global network

1. Introduction

In the Ministry of Finance there has never been any specialised library or documentation centre. The present information and Library Service began to operate in 1994. It was established on the basis of the then existing "library". In the beginning, the service was limited to subscribing to newspapers and magazines, and lending Official Journals of Slovenia.

After the independence of Slovenia, numerous changes overcame the whole country on several levels and spheres of activity. They as well influenced the organisation of the government administration and its bodies, due to which new and different objectives had to be set up. Faced with changing and expanding trends of the administration that had been traditionally awkward and bureaucratic has enabled the Ministry of Finance to advance new solutions based on high technology. The ability to recognise and respond to the needs of the ministry was a great challenge.

First of all, it was recognised that one of the most important tasks within the Ministry of Finance is to provide effective, qualitative and cost-effective sources of information of both domestic and foreign origin. For that reason it was decided that further development of the Information - Library Service should be supported by the establishment of a virtual library.

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2. Why a Virtual Library?

In the 1996 the Ministry of Finance established a virtual library, intended mainly for providing information by means of local and global computer networks. The main reasons were:

1. room limitation
2. existing information system
3. existing information infrastructure
4. new trends in collecting and distributing information
5. financial reasons

Ad 2.1 Room limitation

The Information Library Service is located on the ground floor of the Ministry of Finance main building in Dupaneieeva 3, Ljubljana. It consists of one room of approximately 25 m², which is not enough for providing information and library service to the whole ministry effectively. Open access to the library material especially monographs, is almost impossible. Book shelves are full of serial publications which seem to be stored there rather than being at the users disposal for reviewing and lending. The office equipment is old and does not fit modern standards of book shelves. Readers and users share two chairs and one desk which because to the lack of space are often full of material and other documentation.

Ad 2.2 Existing information system

The Ministry of Finance manages a computer network which enables local exchange of data and global reviewing of different databases. Most users are connected to the local computer network, which enables exchange and transmission of information. One of the most important systems operating within the network is e-mail. Furthermore, the local computer network enables simultaneous use of program packages, databases and other network sources. Users connected to the network use mostly network printers - more personal computers are attached to another printer.

Offices of the Ministry of Finance are located in several different buildings. By means of collecting and distributing information through the local computer network, the ministry, however, effectively centralises operations between the head office and its other units. On the other hand, the same system enables decentralisation of highly specialised units of the ministry.

The use of e-mail has become very popular, especially for sending information of a general type. By means of e-mail it is possible to get daily abstracts of articles released by the Slovenian Press Agency, education information, library news.

Internet advice, business information, foreign exchange rates, etc. Through the network the Ministry of Finance has access to other parts of the government administration. By means of ARNES, however, it has access to the Internet.

Ad 2.3 Existing information infrastructure

The Ministry of Finance has available a relatively highly sophisticated, up to date technology which has enabled the development of a modern information system, new program packages, communication ways, controls and connections with other networks. Most databases created by the ministry contain classified and strictly confidential documents. All “critical” data are copied and stored securely. Dedicated servers (file, communication and print servers) provide for the exchange of files and data as well as for simultaneous use of peripheral units, which allow a user to access another computer’s files and peripherals over a network as if they were local resources. The present configuration enables effective control of access to servers which permit a great number of personal computers to be connected to the network. The network administrator controls the entire procedure, assigns rights of access to individual servers, and supervises insertion and transmission of data into and out of the network. One of the most important tasks of the network administrator is to provide protection against computer viruses.

All users have personal computers. The Information - Library Service has three computers, all of which are connected to the local and the global computer network. Recently, it has been assigned access to the Internet which, however, is not a general practice in the ministry. Access to the Internet is normally assigned on an individual basis.

Most printers available are network printers, which means that printers attached to the print server can be used by any user connected to the network. The Information - Library Service has one printer attached to the local as well as to the global network, which allows printing of data from either network.

Ad 2.4 New Trends in collecting and distributing information

Since the late eighties, the field of processing and managing information has been continuously changing. Driven by technological development it has achieved significant progress. Nevertheless, the speed at which further development is expected in future is even increasing. It is true, however, when experts declare that computers can do far more than is usually demanded of them.

Among recent major development in this field is the integration of information processing into the electronic information environment. Further development of

this area will require new solutions, especially in the field of (IT) Information Technology. Information professionals will have to collaborate closely with IT experts, set up new strategies, improve their knowledge of IT and obtain further education.

As far as establishment and development of a virtual library is concerned, information technology solutions are the most important foundation on which this service is building up its function. This refers mostly to electronic storage and secure data management, network communication technology, electronic media, etc. In addition, electronic systems may bring numerous benefits regarding professional, operational and strategic opportunities, time limitations and target transmission of information.

Ad 2.5 Financial reasons

After thorough research, the Ministry of Finance decided to develop its own information system as well as an adequate back-up support (information infrastructure). It also began looking for a local area network to produce a system for the main offices as a first step towards automating processes.

The establishment of the Information - Library Service was a real challenge. The main task of the project was to bring the existing library into line with current library science standards.

The instalment of the network and the choice of program packages was subject to limited financial resources. The global computer network, as a matter of fact, may provide expensive as well as more publicly accessible, cheaper sources of information. Our main interest was to find an optimal solution; to buy the best program packages possible at the lowest cost. It is important to say that the concern for secure data management, as most data are strictly confidential, was considered very carefully and set in the first place.

3. Information and Library Service in the Local Network

The local computer network of the Ministry of Finance is limited to a relatively small area. Its organisational structure enables.

- co-ordination
- centralisation and decentralisation of procedures
- simultaneous use of programs and databases

The network operational system which is installed on a special data server enables access to the following services: INFOLIT, IUS - Software, The ISSA Handbook database.

Infolit

The program package Infolit for Windows is designed for minor and internal specialised libraries. It provides for computerised management of lending, library data output, and searching for key words, addresses, authors, fields and type of literature.

Infolit has been designed to operate within local computer networks for users working in the Windows environment. The original database is installed on the network server, which enables access by all potential users. At the same time the system ensures sufficient control over unauthorised access to the data. The users of Infolit can be divided into two main groups:

- librarians and database managers
- users of information - library service

The first group have access to all functions of the program. The second group is allowed to review specialised literature, publications and other library documentation and search for information. The users of Infolit also have access to the contents of the literature. The database being installed on the network server enables users to access the program from their workstations.

In order to protect personal data the users of Infolit do not have access to the names of the borrowers. They can only have information on whether the desired literature is available and at the users' disposal.

IUS - Software

The program package IUS - Software is intended mostly for jurisprudential database processing. The database is installed on the dedicated server. The system operates through the local network and is designed to run in the Windows environment.

For the Law Collection there are two main program packages, IUS- system and IUS - Register. The first one refers to the Slovenian legislation and other legal documents (laws and regulations, court cases, taxes) The second comprises the register of laws and regulation in force, including the dates of the issue and the dates of later changes and modifications.

In the IUS-Register the users normally search for information related to when and in which media the particular legal document or regulation was issued. In

addition, the program enables viewing of any desired text. By providing both functions, searching and reviewing, the program has proved to be very useful.

Both programs enable copying and downloading of word text into a file on the user's workstation.

The ISSA Handbook database

The ISSA Handbook databases comprises data on the legislation of European countries namely from the field of operations with foreign countries, duties, taxes, financial markets, stock exchanges, names of contact persons, important addresses, etc.

The database operates in the Windows environment. The original version is updated twice a year upon a publication which provides current changes and modifications.

The ISSA Handbook database enables users to search quickly and easily for specific data of information on an individual country and to compare the same kind of data between two or more different countries. The system also enables searching by keywords.

4. Information - Library Service in the Global Network

The Ministry of Finance is connected to the communication system of the global computer network. By means of public networks it is possible to have access to electronic systems of individual institutions and organisations. Although each individual system may operate in a different way, the basic functions appear more or less the same. They all provide services like e-mail, exchange of files, and transmission of information. The information Library Service was given access to direct use of the global network system, which so far has proved to be a great advantage. In accordance with its basic function the Information - Library Service currently performs the task of reviewing and transmitting information from Cobiss/Opac, the Internet, and the Central Economics Library in Ljubljana and Infoklip.

Cobiss/Opac

Cobiss/OPAC (Online Public Access Catalogue) is the subsystem of the Cobiss cooperative online bibliographic systems and services and enables the user access to databases and online catalogues of library materials from more than 80 of the biggest Slovene libraries included in that system. Cobiss represents the common basis of the Slovene library information system and the system of scientific information.

Cobiss/Opac is a network application, constructed in accordance with up-to-date principles of the development of the network type application (client/server principle). Its software is composed of two logical program components (clients and server). Client is a user interface which "translates" the actions of the user into formalised questions, thus transmitting it to the second program (server), which may be installed on the same or on another computer. The server responds to questions issued by the client. Whereas the client may be installed on any VAX or PC computer, the server can only be installed on computers that already have the Cobiss system databases installed.

Cobiss/Opac enables the user to transfer data from the Cobiss system to other systems (e.g. Infolit) for the automation of library activities on the local level (PC), to view local databases and catalogues of institutions included in the Cobiss system, and to view the union COBIB database (Co-operative Bibliographic Database) in the function of various catalogues (e.g. catalogue of library materials of all institutions included in the Cobiss system, catalogue of foreign serials of the Republic of Slovenia, catalogues of individual universities, etc.)

The Information - Library Service of the Ministry of Finance is an associated member of the Cobiss co-operative online bibliographic system.

Internet

In the last years the classical function of libraries has been more and more superseded by various electronic information systems which enable exchange, acquisition and transmission of information, searching, processing and storage of data, and reviewing and lending of library material. As to their resources and unlimited access, no classical library at present can be compared with their capabilities of providing information.

Generally speaking Internet is a global library. However, it is well known that it enables several different services. The Information - Library Service of the Ministry of Finance provides the use of its basic services, such as e-mail and access to distant computers and networks. So far, e-mail has been a significant factor in all areas of the Internet.

Users of Internet may search for various data, exchange information and communicate with other users of Internet primarily by means of search engines such as Excite, Magellan, Point, Inktoml, Alta Vista, InfoSeek, Lycos, Open Text Index, Webcrawler, Yahoo, etc.

The Central Economics Library

By means of the Internet it is also possible to access the Central Economics Library in Ljubljana, which is not integrated into the Cobiss/Opac joint catalogue.

This library's database appears very useful when searching for information related to economics, finance, accounting, legislation, and similar. The system of the Central Economics Library is not integrated in Cobiss/Opac joint catalogue, but has a considerable number of documents and library materials at its disposal. By means of the e-mail connection there is another possibility for providing interlibrary lending of highly specialised professional material.

INFOKLIP

Infoklip is a computer supported system for documenting, analysing and distributing contributions published in the media (so-called Clippings) concerning the operation of the Government Ministries, and other State bodies, and the Prime Minister.

The system enables users to survey the daily clippings, to search for articles published within a given period of time by using different data selection services (sundry entered data, words appearing in abstracts, or keywords), to search for radio and television broadcasts recorded and entered in the form of magnetogrammes, to survey international clippings, and finally to survey and search for contributions prepared by the Slovenian press agency STA.

Infoklip is an application, constructed on a client/server principle and developed for the Windows environment. It was introduced in 1995, at the beginning only for certain individual Ministries, offices and Government services that already had the facilities for connecting to the server at the Government Public Relations and Media Office through their network servers and the State administration communication system. At present, the clippings are available in this way to the majority of Ministries and Government offices and services.

So far, the system has brought numerous benefits in enabling both the Government Public Relations and Media Office and other users to perform numerous highly important tasks, better and faster. An additional quality of the system is its flexibility, since it can be adapted to new customer requirements with no major difficulties. In other words, the system is open, upgradable, and expendable.

6. Conclusion

The establishment of the information and Library Service of the Ministry of Finance as a virtual library, and its connection to the local and global computer systems has proved extremely good and useful. A virtual library, in which data are stored on a computer as a database arranged by keywords or attributes which facilitate easy and fast searching, can hardly be compared with a typical classical

library in which library - documentation material is kept in book shelves. By means of electronic media it has become easier for the user to obtain proper information, to review library material and documentation, to carry on information research, etc. In other words, electronic systems have brought numerous benefits in enabling the users to perform highly important tasks better and faster.

However, there are also some disadvantages that have to be mentioned. There is a possibility of viruses entering from the Internet and other communication devices which may bring about serious problems in the organisation and performance of the virtual library.

Furthermore, there is a great problem arising for people working alone in an electronic environment with a computer being the only partner for most of the day. In comparison to people working with the public, in social places, persons working with computers are exposed to social alienation and disaffection.

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