LIBRARIANSHIP EDUCATION AND INFORMATION MANAGEMENT: THE BRITISH EXPERIENCE

Ilona GURKA-BALLA
Florina ILIŞ
„Lucian Blaga" Central University Library

In his book *Foundation of Library and Information Science* published in 1998 Richard E. Robin formulated some questions that should be carefully considered by librarians in our society which is increasingly dominated by mass-media. These questions do not only refer to the role and mission of the library in the age of information but also to the aspects of the production and management of electronic information as well as the place of libraries in the vast network of information.[1]

These queries did not arise from the author's wish to theorize about a profession which is already caught in a metalanguage that tends to proliferate endlessly. Such questions about the librarianship profession are asked with an increasingly responsible attitude by Western Europeans really interested in examining a professional category, one of the most challenged ones in the age of information. These deal with all three members of the equation which describes library activity: **user–document–librarian**, adopting a unique perspective. All three have underwent structural and behavioural modifications in the age of information, modification which have involved a series of issues that a library should take into account. These are partly ethical, referring to the rights of users and the responsibilities of those who produce and manage information, and partly technical, concerning the typology of a mentality which is more and more dependent on technology. This dependence leads to the precise outlining of the librarianship profession within the larger context of skills necessary for management of electronic information.

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[1] Richard E. Robin, *Foundation of Library and Information Science*, Neal-Schuman Publishers Inc., New York, London, 1998. p.17

The response was given a critical evaluation and also led to the first clear signs showing the need in the librarianship profession not to be left stranded by the information boom.

This can be seen at two levels of reference, first at the level of the education system and secondly, at the level of library administration. We are presenting such an approach, based on the experience of a two-week training period at the University of Northumbria in Newcastle. Secondly, this series of factors that allow for the change of structure of the whole librarianship education cannot be perceived outside a coherent information management facing the sea of information flooding modern societies. This aspect will be treated in the second part of the study.

I.1 In the first place we can observe this strategy of mentality change vis-á-vis the librarianship profession at the level of **education infrastructure**. Therefore some higher education institutions have recently adopted a more attractive labelling, such as the 'information studies' syntagm. This is also natural if we take into account the revigorating capacity of languages and the degree of linguistic adaptability to the changes in society. The 'information studies' syntagm is not a form without foundation sprung from various obscure necessities. It covers a well-defined school curriculum based on the new requirements and new mentalities of the information society.

One of the items of programme during our visit to Newcastle was the discussion, from the perspective of this structure modification of librarianship education, of the development, acceptance and introduction of certain subjects in the curricula that would satisfy the need of contemporary society of managing and supplying information through academic and university channels, libraries and centres of information.

All these needs and future directions in the world of information market are carefully analysed by designers of modern libraries. M.B. Line asserts in an article published in the anniversary volume of Information and Library Management Department, University of Northumbria, Newcastle that "we need a clear

idea of what future society will be like, for information work."[1] Further on, he describes an evolution of methodology, which would have a special impact on libraries and the world of information. Without idealising the explosive nature of information in our society the author sums up the special skills needed by the future librarian:

- vision, imagination
- broad view
- flexibility
- ability to go on learning and re-learning
- management skills: organisational, financial, marketing, personnel
- information packaging skills
- public relations

None of the traditional skills of the librarian appear on this list, as M.B. Line observes.[2] Taking into consideration such studies, speciality education has tried to adapt to the new requirements of modern society by the creation of a new, flexible school curriculum open to the changes. The introduction of a new unit in education as a study subject is often accredited by the professional association of librarians (The Library Association) and the Institute of Information Scientists. In order to be accredited and included in the curriculum, the course must fulfil certain criteria:

1. the relevance of the course for libraries and the science of information
2. the devotion of the team which will teach, including the Head of the Department
3. the centre of interest of the department which offers the course
4. its relationship with the supporting institution

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[1] M.B. Line, *Tomorrow's Professionals: Creating a New Breed*, in: *Information and Library Management 2000+*, edited by W. Malcolm Watson, University of Northumbria at Newcastle, September 1997, p 29-30.

[2] *Ibidem*, p.36.

5. expertise and experience of the staff
6. quality and duration of the course
7. the calibre of students as revealed by former evolutions.

Of course there is a fixed structure of the main study units, and the modifications usually vary within this module:

A. Information generation, communication and utilisation
B. Information management and organisational context
C. Information systems and communication technologies
D. Management and transferable skills (qualification, knowledge)

The School of Information at the University of Northumbria in Newcastle offers degrees in three fields: Information and Library Management (part-time), History of Art and Information Studies (full-time), Information Studies with either French, German or Spanish (full-time) and similarly, four types of Masters degree: Information and Library Management (1 year full-time and 3 years part-time), Information and Records Management (1 year full-time), Records Management by distance learning (2 years 2000 onwards) and Information Studies (part-time).

Regarding the Masters degree in Information and Library Management which lasts two semesters, in addition to the basic structure of fixed subjects which offers an accredited specialised training there are also study units which introduce and form theoretical and technical skills in the field of electronic information management (e.g. Information in Society defines the concept of information society and discusses the issue of censorship and information barriers, Electronic Publishing deals with various electronic publications).

All these modifications in the structure and conception of training information specialists commence from the technological revolution, the fact that information today can be disseminated in channels of preserving, processing and communicating information. The shift from the so-called "print-world" also encompasses libraries. In order to keep up with this rapid shift, libraries need specialists who have the necessary skills for

creating, preserving, communicating, evaluating and presenting electronic information. These professionals are trained in higher education units, which have adapted to the new identities of contemporary information culture.

1.2 Secondly, we can trace a modification in vision and conception in the *library* itself, in the adaptability and flexibility of great academic and public libraries and their adoption of advanced technology in the field of information.

The modification in structure and mentality in the process of education corresponds, naturally, to a necessity that could be observed first of all in libraries, libraries being like barometers measuring the information needs of the society. The challenge faced by almost all libraries, the challenge of "virtual library" which covers in fact an unlimited universe of information, seems to have passed beyond a critical threshold of professional deontologisation in technologically advanced countries. This challenge works on two levels, first through the need of the professional language to define and impose a reality already existent in our society (virtual reality), and secondly, it involves the competition of technological development of the society.

Professional language is continually changing and adapting the concepts to the needs of users who become more and more familiar with new technology. The concept of "virtual library" was initiated by some studies which theorised the development of technology and its impact on libraries. Certainly, the first question that arises in the context of the coming down of walls in the world of information is connected to the future role of the "virtual library".[1]

The terminology that tries to establish itself in librarianship generates a discussion on at least two levels, the linguistic level, related to the specific idiom and a strictly professional level, linked to the realities denoted by the new concepts. The volume *Towards the Digital Library* (1998), edited

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[1] Cherrie Noble, *Reflecting on Our Future: What Will the Role of the Virtual Librarian Be?*, in: *Computers in Libraries*, February 1998, vol.18, nr.2, p.50.

by the British Library is an eloquent example: it covers the whole span of services and activities specific to a national library, from the traditional to more modern ones. The contributors of this impressive volume deal, in function of their interest and training, with digital technology and networking in the preservation, communication, visualisation and transmission of information. We would like to quote the most pertinent definition of the digital library that we have ever read in the speciality literature: "The digital library is the widely accepted term describing the use of digital technologies to acquire, store, preserve and provide access to information and material originally published in digital form or digitised from existing print, audio-visual and other forms".[1] The concepts of "virtual library" and "digital library" are no longer considered today a wonder in Britain; no one is frightened of its apparent lack of substance as long as the library creates its own ways of digital information management and control by controlled access to its traditional and on-line databases.

The "virtual library" purchases electronic information, CD-ROMs, videocassettes, and offers access to the Internet. The university libraries visited by us in Britain (e.g. the Library in Sunderland) have rapidly adapted to the new requirements of user information. Our discussions with librarian colleagues in Britain revealed the fact that book acquisition in libraries has visibly decreased in favour of electronic formats.

As to the automation of library services, this is a response to the need of library users to feel free from the vigilance of librarians and help themselves by a less and less complicated and discrete technology. There are self-issue machines, for example. On the other hand, technology guides the way towards knowledge and communication through its role of interface between users and information.

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[1] *Towards the Digital Library*, eds. Leona Carpenter, Andrew Prescott and Simon Shaw, The British Library, London, 1998, p.227.

II. Libraries are trying not to remain the rearguard of the information revolution. The ways of access to the great networks of information are various and information managers need special skills for analysing, structuring and distributing information packages. However, the challenge of virtual libraries is far from questioning the activity of traditional libraries. On the contrary, it impels and modernizes it. Before we allow virtual information into the library, we must define and manage it with databases suitable for the scientific needs of users.

Strange as it may be, the library will never lose its role of collecting information, despite the many changes in our "modernized" society. What is information and what is its role in the present? We can define it in two ways: it is the transmission of the message from the transmitter to the receiver but it is also an abstract entity, something sent from the source to the receiver. Communication between two people depends on their relationship; it must have access to the same channel, use the same system of codifying and de-codifying signals and speak the same language or jargon. The efficiency of communication also depends on the existence of a common basis of knowledge and experience depending on the provenance, professional and social status of the emitter and the receiver and many other special factors. In case of close resemblance the message can be short, but if there are great differences, the messages must be longer in order to avoid misunderstanding.

The efficiency of communication depends on the way in which partners reach a "compromise". Important messages can be highlighted by the order of their placement; for example, the most important ones placed at the beginning of the series. However, it is difficult to find one's way among already existing information and the creation of a guide is required, a map in "navigation" and in the circulation of data on different channels. For example, we must arrange our e-mails from time to time, create different sections (Folders) for the storage of messages so that we can easily find what we are looking for.

Today more than ever, people feel the need for guidance in their search for information and information retrieval. In the

multitude of electronic data there must be an order based on the logical system of classification used by libraries for centuries, whereas the ways of access to any kind of data must be created in function of the necessities of those who ask for them for various purposes. "The carriers of information do not change", says Sandra Parker, "but they are added to the medium which becomes more and more relevant for messages. The structure, order and the interpretation of information for the user who cannot formulate his question as well as the support for 'lifelong learning' remain essential functions. In order to prevent the world's drowning in information we must be more imaginative in information packaging. It depends on us how we save time for the reader..."[1]

These information packages could be the databases created and accessed in the international system of computers, such as the World Wide Web and the Internet, accessible by anyone who has access to the Internet Navigator and knows the correct address of the homepage of different institutions, societies or special services.

Metadata, one of these databases contains "data about data" and fulfils the function of bibliography of bibliographies. Standard bibliographical information, summaries, indexes and abstracts are in fact substitutes for original materials; they are all metadata therefore. Sometimes these data are created for electronic resources and the term is used in a broader sense. They are in fact sets of data, textual information, graphics, scores or anything else that can be electronically visualised. As the concept includes the classification and cataloguing of information, data can be represented in conventional documents such as MARC bibliographic records. There are also systems which contain information about works that are not catalogue information but similar to it, for example, Platform for Internet Content Selection (PICS) for the classification and filtering of information (information about authenticity, accessibility, digital signatures, copyright, reproduction are all metadata).

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[1] Sandra Parker, *The Rocky Road Ahead*, in: *Information and Library Management*, ed. Malcolm Watson, Newcastle upon Tyne, 1997, p.27.

There are cases when the computer can open two applications simultaneously, the original together with the metadata. Its function is to supply the user with data about the content but also the aim, source and the way of using the document (this is very important for great collections such as NASA EOSDIS database).

This database is useful only if we use standardised structures and adequate terminology in the system (for example, references pointing from name variants to the uniform author or subject heading). A series of databases were created in order to systematise electronic information. A workshop sponsored by OCLC (Ohio College Library Centre) and National Centre for Supercomputing Applications in 1995 created Dublin Core. The aim of the participants was to create a basic collection of metadata but there were also groups specialising in the description of other resources, such as museums and libraries. The Core contains 15 metadata elements divided in three groups:

Content: Title, Subject, Description, Source, Language, Relationship (with other resources), Coverage of the intellectual content;

Intellectual responsibility: Creator, Editor, Contributors, Rights;

Instantiation: Date, Type (homepage, novelty, working paper), Format (of the data, software and hardware), Identifier (URL or ISBN).

Work goes on with Core. There have been nine workshops so far to discuss the issue of syntax and qualifiers. Enumerated lists (controlled vocabularies) were created for the Type and Format, with a view to interoperability. There is constant confrontation between the original purpose of simplification and the wish of the speciality groups to increase the level of details in order to satisfy extremely various demands. If there is a *lingua franca* for metadata then Dublin Core certainly is, albeit on a basic level. Speciality groups can develop their own lists to extend Core. (Younger describes Dublin Core and the demands of libraries to describe resources in a distributed digital medium).

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The *Nordic Metadata Project* has an important role in supporting the development of Dublin Core; it is interested in applying this database in North-European countries. Their first aim was to develop means of work for the creation, collection and indexing of metadata based on Core. Documents were published on the Web in Finland and Denmark where this database is already in use.

One of the most important accomplishments of the Nordic Project was the URN generator (Universal Resource Name). A syntax has been created for the numbers of the national bibliography based on URN and an application which automatically generates URN, together with the necessary guidance. Besides Northern countries there are now other European countries which use the URN generator.

The Meta Web Project, sponsored by several great Australian companies decided to develop indexing services, instruments for users and sets of metadata elements to promote the use of metadata. Among others, it includes a search apparatus for URNs for Australian sites; elements of Dublin Core metadata and a software that automatically generates six of those 15 tags linked to it, creating the framework of records (MWP).

UKOLN in the Resource Organisation and Discovery in Subject-based Services (ROADS) project aimed at creating a system of discovering the sources oriented towards users.

There are already several societies and specialists interested in these projects which try to make best use of this database and the solution to the still existing problems will sooner or later be found. There are attempts of interoperability between databases in view of a more fruitful collaboration. Interoperability and the standardisation of elements point towards the possibility of creating an international database, a virtual library of information sources. This would be a noble and deserving purpose for future information managers.

The *Scorpion* is another, similarly attractive project. It is the research project of OCLC, which investigates the electronic results of classification and cataloguing.

In any case, the creation of these databases, especially the international ones, help us with information retrieval and thus they are parts of programs such as Impel1 and Impel2, Underpin, Ginn, Logoplus, etc. These programs aim at doing research in the field of information technology, data registration on any sort of electronic support and the spread of these new technologies on a larger scale, national and international (for example the design of training courses for Romanian librarians).

It is our conviction that the success of libraries visited by us in England, such as the university libraries in Sunderland and Newcastle (The Robinson Library) and public libraries in Gateshead and Sunderland is due first of all to their orientation towards the serving of various types of readers on a "professional" level. Several problems have been solved, such as the aid for handicapped people, children, elderly people, or young people who cannot find a working place. The guidance of these young people is in favour of the community, served by a certain information centre (library, school, faculty, museum, etc.). Thus the library becomes a vital centre of information and education. Our future depends on our ability of facing these new requirements. We must give advice to all those who ask for the solution of a problem.

The role of the information manager is the key point in an information centre in the library or any other field where the solution of current issues is required. The manager must have an appropriate knowledge in the field to be able to selecti and disseminate information or documents required by the community in question.

In her study on American universities Hermina G.B. Anghelescu writes about the tendency of libraries towards automation: "The connection of traditional librarianship and information science is one of the happiest marriages at the end of the 20th century which will certainly be successful in the third millennium. Although transcribing library and archive documents in digital format threatens the future of these institutions, their metamorphosis in 'virtual libraries and archives' 'libraries and archives without walls', the needs of the members of modern society to become informed, to obtain answers to the questions that

preoccupy them will ensure the existence of centres of information as well as the need that these become 'populated' with a highly qualified staff"[1]

This is reflected in the curricula of the various types of Anglo-American institutions (curriculum designed for obtaining qualifications in a given field, post-qualification curriculum and curriculum for the process of adapting to new social and economic requirements).

The various curricula in full-time education, distance learning and NVQ (National Vocation Qualifications) make great use of IT (Information Technology) and 'lifelong learning'. What does 'lifelong learning' mean? It simply means that we learn until death puts an end to this human wish.

"There is little doubt that the information management function will be increasingly important in organisations of all kinds and that key issues in the implementation of systems will continue to be matters of management, organisation and people, rather than the technology itself", writes T.D. Wilson[2], founder and editor of the periodical *Social Science Information Studies* in his essay *The Future of Education for Information Management*.

III. This material had as its starting point the experience of a visit to Northumbria University, Newcastle and some other libraries in England and was presented at the *Philobiblon* workshop on 29 March 2000. Discussions with those directly involved and interested in librarianship education and the activity in university libraries revealed the following aspects of the process of transition of librarianship education:

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[1] Hermina G.B. Anghelescu, *Învăţământul de biblioteconomie şi ştiinţa informării în America de Nord. (Librarianship Education and Information Science in North America),* in: *Management pentru viitor: Biblioteci şi arhive),* Cluj, Presa Universitară Clujeană, 2000, p.20.

[2] T.D. Wilson, *The Future of Education for Information Management,* in: *Information and Library Management 2000+,* edited by W. Malcolm Watson, Newcastle upon Tyne, 1997, p.91.

- the present situation of Western libraries and librarianship is an experience in automation that Romanian libraries should take into account
- the curriculum of the Librarianship Faculty of the "Babeş-Bolyai" University, Cluj is still changing, and does not completely reflect the radical change in the status of the librarian who is gradually becoming an information science specialist and a specialist in modern technologies of information retrieval
- there is a strong connection between university libraries and the Librarianship Faculty, and the training of future specialists should reflect the new vision on the relationship between library and library users as well as the role of the library in the information society.

Librarianship studies are looking for their identity as the whole Romanian system of education is in transition. The number of study years has changed and subjects have been divided into two modules: general subjects are taught in the first two years while speciality subjects in the last two years. This seems to be the best way of modernizing the curriculum. Practice and the effective functioning of this new strategy will have to prove or disprove the viability of this plan. However, success also depends on the mental flexibility of those involved in the educational process and the extent to which the library as the essential pole of this process is open towards these structural modifications.

All these problems encountered by Romanian librarianship were discussed at the *Philobiblon* workshop and the clarification of the following aspects proved to be absolutely necessary:
- formation of the new type of librarian and the surpassing of the old mentality in a profession which must demonstrate its flexibility today more than ever,
- the creation of a national database which would allow for efficient data conversion
- research must be undertaken in the field of information science in order to improve library activity in the process of transformation

We must finally say that changes in library activities and the education system seem to be quite slow. However, there is a new trend of thought benefiting from experiences abroad and rising from the inner need to surpass the narrow frames of professional self-sufficiency. This will, we hope, be able to establish a modern and dynamic field of activity that has the advantage of holding a privileged place in the information society, in the function of those changes.

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