Thomas, C.F. (ed.): **Libraries, the Internet, and Scholarship. Tools and Trends Converging.** – Marcel Dekker, New York – Basel 2002. ISBN 0-8247-0772-9. 217 pp., USD 99.75.

This book contains nine chapters prepared by nine authors working in various U.S. universities, and one author from the University of Leeds in England. They deal with problems of preservation of scientific materials, with using Internet, scholarly communication, virtual and digital libraries, information systems in various research fields, *etc.* All these problems are very serious and must be solved in the nearest future.

In the last decade many scientists, editors, and publishers thought that the digital and internet era will lead to early death of printed books and journals, prior to say the year 2020, and that all scientific communication will be done only on the World Wide Web. That the space of future libraries will be limited to a few rooms storing only CD-discs that will be copied for the final user. And that the scientists all over the world will be in steady personal contacts informing colleagues on their ideas, new scientific results, and hypotheses by e-mail.

Nevertheless, the recent development of both hardware and software is so rapid that, in contrast to printed books that keep texts fixed and legible as long as the paper on which they are printed does not deteriorate, almost everybody is at present thinking of future necessity either to keep all possible kinds of hardware in usable state for ever or to continuously copy the existing texts on steadily appearing new media using newly developed programmes and new devices. This is why major libraries now microfilm old books and journals: the modern microfilms of preservation quality should be legible after 300 years, which cannot be said of the electronic media. The tests have shown that magnetic media may last from 10 to 30 years and the WORM disc cartridges from 60 to 120 years. On the other hand, nobody loves reading the microfilms. Hence the ideal hybrid solution is microfilming for preservation and digitising for enhanced access.

As concerns the Web, half of its pages disappear every month, while the Web continues to double in size every year. In addition, the texts of papers presented in digital journals can be continuously revised by the authors (and in some cases also by the readers). There is always danger that some clever virus will destroy all papers. Another danger is easy plagiarism of texts presented on the Web. This is why scientists do not like to publish in only-digital journals, which do not have a parallel printed version. This is confirmed by my experience as editor: till now no reference in articles published in Photosynthetica was to a paper published in an electronic journal. There are also financial problems connected with publishing such journals, because to produce them is not cheaper than to produce printed version and to obtain a pirate version of such journal is fairly easy for hackers. Another question is connected with copyright.

Such problems are discussed in first chapters: of course, also advantages of digital libraries and papers presented on the web are shown. One large advantage of electronic texts is that it is fairly easy to find individual terms, sentences, or paragraphs by using key words. The time between producing final version of a journal and its publication can be cut to minimum. The expensive and slow sending of reprints is replaced by e-mailing the article. The amount of users of Internet increases year to year: at the end of 2005 more than 720 million users are expected world-wide.

Also the problem of metadata is discussed. This term means "structured, encoded data that describe characteristics of information-bearing entities to aid identification, discovery, assessment, and management of the described entities" (p. 80). Another necessity is multilingual thesauri.

Chapter 5 is on the impact of technology on research and publication in natural sciences, especially in taxonomy, systematic, and related disciplines. It is now possible to link protein database to genetic database and to taxonomic database, all databases enabling exact integration. This helps much in phylogenetic studies. The "Global Plants Checklist" will include over 1 million names for more than 300 000 vascular and nonvascular plants. Among others, this will help editors who often try without success to check scientific names in manuscripts. Another database, "Species2000", will serve as the central research source for bio-diversity studies. Experimental project entitled "Sequences, Sources, Taxa" links taxonomic and molecular sequence data.

Chapter 6 is on electronic text encoding in the humanities (differences in digitisation of one poem using various mark-up languages are shown). Chapter 7 is entitled "Visual resources collections and technology". Chapter 8 is devoted to information systems in geography and the last chapter to social science data.

The book presents interesting reading to everybody interested in modern scientific communication and of course to librarians and information specialists.

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