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SMITH, Linda C. (Ed.): **Questions and answers: strategies for using the electronic reference collection.** Urbana-Champaign, IL: University of Illinois 1989. 208p. Hardcover. ISBN 0-87845-077-7.

This volume contains the proceedings of the twenty-fourth annual "Clinic on Library Applications of Data Processing" which was held April 5-7, 1987, at the University of Illinois at Urbana-Champaign. Of the fifteen papers published here, nine were given by invited speakers discussing various aspects of the clinic theme, one was part of a poster session, and five were presented by librarians from the University of Illinois, thus dealing with local aspects of library automation. The range of topics discussed comprises online public access catalogues, online databases, CD-ROM databases and catalogues, and bibliographic networks.

The keynote paper by *Sheila Creth*, "Beyond technical issues: the impact of automation on library organizations" (pp.4-13), looks at library automation from a University Librarian|s managerial point-of-view. Firstly, the author discusses the changes that library automation might bring to the organisation. Will libraries and librarians really play the central role in providing access to information within a highly automated university community? Or will they lose this role to academic computing centres? Even in Europe we can feel a tendency of merging university libraries and computing centres, or at least of putting them under a common management. Creth also mentions the impact of automation on communication patterns within a library organisation, and on the organisational structure of libraries. It could well be that in automated libraries teams working within broad subject fields are more efficient than the traditional public and technical services divisions. Whether or not participatory management will replace the existing authoritarian structures in libraries is an open question; there are certainly some aspects other than automation that also must be considered in this context. In the second part of her paper, Creth deals with the impact of library automation on the individual. She gives a somewhat futuristic view of the numerous skills that present-day and future librarians should have and accordingly points to the increasing importance of training and development of staff. I wonder who will ever pay for this when today's authorities still expect you to cover the expenses for conference trips yourself; Creth is

not very helpful by stating that "somehow" that money must be put together. Finally, the paper touches some important aspects of the work environment, including health concerns of "life at a workstation", the location of staff and the flow of work, and the problems of work relationships in the automation context. Surely, the latter point would have deserved more attention than given here; it seems that not many of us dare to speak about demotivation and alienation caused by library automation.

Charles Hildreth's paper, "Extending the access and reference service capabilities of the online public catalog" (p.14-33), is a must for everyone studying OPAC theory and practice. Hildreth starts with a brief account of the different development histories of OPACs and online information systems, and of the weaknesses of first-generation online catalogues, before concentrating on a discussion of the present state of operational OPACs, their problems and shortcomings, and suggesting different ways to improve their access and service potential to library users. Most present-day OPACs fall into the second category of the author's three-generation classification of online catalogues; even the rather underdeveloped OPAC this reviewer is most familiar with provides some features beyond those of simple first-generation known-item finding tools. Obviously, some of the more advanced second-generation OPACs can be seen as bibliographic information retrieval systems, designed for end-user access, containing a wider variety of subjects but still lacking the standard of subject searching features that IR-systems usually provide. According to the author, they are efficient tools for library staff but not yet for a wide variety of untrained, occasional users (too many failed searches, navigational confusion, problems with the subject indexing vocabulary, ignorance of the basic approaches to retrieval, etc.) Hildreth then very briefly reviews relevant research results that some OPAC developers seemingly never ever bothered to notice at all. -- The paper's second part presents eight ways of extending the OPAC, mostly by adding data to the MARC catalogue records, by integrating related data or information files to the OPAC database, by enhancing the search and retrieval options, and by providing gateway access to external bibliographic and other files. Hildreth also makes clear that most present-day operating OPACs have neglected the developments in modern information retrieval research (especially non-Boolean techniques), and talks about "intelligent" systems (they begin where conventional systems end). At least, a limited number of advanced IR and online catalogue systems have started using "modern" techniques such as automatic combinatorial searching or automatic linguistic techniques including the use of thesauri and other subject authorities files. Hildreth concludes that the "fully extended OPAC or even the 'full collection access instrument' does not yet exist in a particular operational environment," and identifies some obstacles which need to be overcome (incompati-

ble record formats, inconsistency of indexing and access points, integrated books circulation systems).

In the following short contribution (p.34-37), *Dana Roth* gives a practical example of extending the OPAC by discussing future plans of the California Institute of Technology Libraries for establishing an analytic catalogue which will include chapters from books and collections, journal articles, conference papers and individual technical reports.

In addition to library OPACs, other databases have become part of automated reference services. *Betsy Baker's* article, "Reference services and the networks" (p.38-54), illustrates the present-day integration of traditional bibliographic utilities such as OCLC and RLIN into the public reference services of academic libraries. -- *Virgil Diodato* in "Online ready reference in academic libraries" (p.55-70) deals with the use of online databases for "ready reference", i.e. the supplying of brief factual information to library users. The author's postal survey conducted in 1986 showed that 48 percent of US academic libraries were already performing such services, most of them using DIALOG and OCLC databases. Diodato also reviews the relevant literature and gives guidelines for setting up an online ready reference service. -- *Charles Anderson* discusses the same issue from the perspective of (American) public libraries, concentrating on aspects of budgeting and staffing (p.71-84). -- The next paper, by *Dianne Rothenberg* and *Mima Spencer* (p.85-93), reviews the present state of full-text online databases (i.e. files that contain the entire contents of journal articles, encyclopedias, textbooks, directories etc.) and discusses some implications for libraries such as cost aspects and end-user searching of those files. -- The final article of this section, "Optical publishing: effects on reference services" (p.94-102), by *Terry Noreault*, presents an introduction of CD-ROM and WORM technologies and gives a brief overview of their potential for library and information services, including a comparison between CD-ROM and (traditional) online databases.

The focus of the two papers that follow is on the interface between systems and users. *Stephen Harter* looks at "Online searching as a problem-solving process" (p.103-120), aiming to identify "useful classes of heuristics for online searching." This sounds rather scholarly indeed but turns out to be a discussion of search options ("heuristics") for certain cases of problems. The main example illustrates the tactical options for the situation when search results are not relevant at all. Harter identifies fifteen possible ways for overcoming this problem, none of them new to online searchers. One wonders whether expert systems will be able to apply these tactics in the same or even in a better way than human intermediaries do. -- In the second article, "Tailoring system design to users" (p.121-131), *Charles Meadows* argues that in many instances software (including retrieval languages) has not been designed for the user (consumer of information). He briefly reviews

three particular retrieval interfaces and talks about aspects of such systems that could be tailored for the user. Meadow's conclusion is that there should be systems that behave differently for different users; some of the existing front-end software products are already able to reflect different user needs and skills.

The final part of the volume contains five contributions reflecting the views and experiences of librarians from the University of Illinois. *Beth Woodard* provides an overview of the two online catalogue systems used at Urbana-Champaign (LCS and FBR), and their integration into reader services (p.132-143). *Sharon Clark* describes the co-operation of her library with ILLINET Online, a statewide online union catalogue of all types of libraries in Illinois (p.144-152). *Paula Watson* reports on a pilot project examining the usefulness of CD-ROM technology for catalogue record distribution in order to facilitate resource sharing and reference work (p.153-176). Optical technology is also discussed by *Barton Clark* and *Karen Bingham* who describe the university's successful experiences with InfoTrac, one of the early information databases distributed on digital videodiscs and CD-ROMs (p.177-187). In the last paper, *William Mischo* and *Melvin DeSart* present an interesting overview of the Urbana-Champaign Library's project of establishing a microcomputer-based interface for end-user searching of periodical literature databases on the BRS online host system, accessible through the library's OPAC (p.188-204).

Generally speaking, *"Questions and answers"* makes good reading. However, being a collection of conference papers and not a handbook, the volume's coverage of the field of "electronic reference collections" is a bit patchy but also makes clear that this topical area is a rather wide one. Most papers are of good quality and, despite of the time lag in the publication of the book, still relevant for all members of the online information and OPAC communities. I recommend this book particularly to schools of library and information science and to larger (academic) libraries.

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Beispielsammlung zu den Regeln für den Schlagwortkatalog. Zugleich eine Einführung in die RSWK. (Collection of examples concerning the Rules for the Subject Catalogue, RSWK). Red.: Rudolf Frankenberger. Berlin: Deutsches Bibliotheksinstitut 1991. 459 S.
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