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The Changing Face of Metropolitan Libraries:
Inventing the future, but anchored in the past

Antonia Arahova & Sarantos Kapidakis

Topic of paper: **E-reference and E-learning: Collaborative Services under a User – Centered Option**

Conference theme chosen: 2. Staying Relevant - New Services, Technology, Customer Orientation, Re-engineering staffing, etc.

Introduction: Real-time online reference services, like e-reference and e-learning, have been around for some time now. As with many newer technologies, the academic libraries picked them up first, due in large part to their flexible funding and staffing structures. In the last few years, public libraries have jumped on board, with school libraries following hot on their heels. From my point of view, the managers of the modern libraries should be most interested in the book as it deals with such important issues as infrastructure for digital reference, management of an integrated reference service, setting performance targets for virtual reference service, staffing and training personnel for this interesting and challenging work task.

Once synonymous with distance learning, elearning has quickly evolved to include not only courses which are taught primarily online and over a distance, but also to include traditional "brick and mortar" courses which have been enhanced with electronic elements. Course management systems (or virtual learning environments') have moved swiftly from scattered implementations that support a few online classes to enterprise-wide services that support and extend the entire curriculum and related institutional services. They are providing new opportunities for libraries to design and to disseminate new elearning services. As they create these new services, libraries will also need to highlight their expertise, abilities and irreplaceable resources in order to take a leading role in the new environment.

E-learning: Pedagogy, learning methodologies and technology have become linked and the inter-relationship between the three needs to be better understood and more radically reassessed. At the heart of the learning/technology nexus are learning objects – a concept which does not have a standard definition or application. The use and reuse of learning objects, their discovery and shareability, their existence as digital entities and the context in which they can be used, are the key elements to creating broader, inter-institutional applications of technology and learning.

In order for learning objects to have value, they first require the use of semantically consistent, easily created metadata which allows for the objects themselves to be found and transported between institutions and repositories. The management of digital asset repositories, learning object repositories and the metadata governing their use are inextricably linked, and the issues surrounding learning object repositories are equal to and a part of the issues surrounding digital asset repositories.

In addition to the concerns surrounding digital repositories, learning objects and metadata, libraries are also interested in developing ways to integrate and expose their existing systems, resources and services in university-wide course management systems. Of strategic importance to these efforts is the understanding and development of service convergence (as opposed to organizational or institutional convergence). The group decided that practical efforts need to proceed despite the lack of current industry uniformity and the possibility of occasional failures. The group repeatedly declared the need for the creation of standards and of ongoing functional technical solutions.

New standards and technical solutions are required for high-quality and cost-effective teaching. To that end, the Task Force called for the collaborative mechanisms and collective expertise of the library community to provide both leadership and timely, cost-effective input to the development of institutional infrastructure and appropriately developed and placed services. The collaborative possibilities reside under three categories: exposing library services, creating and maintaining digital asset repositories and creating standards for interoperability.

E-reference: I believe libraries and the students they serve have the most to gain from real-time online reference. The users, in this case students, are generally very comfortable with computers and with chat technology. In fact, many of them would rather chat online with a teacher or librarian than ask for help in person. I have seen students in the public library chatting away on an online reference service, while there is a real-life librarian sitting not twenty feet away at the reference desk. Clearly "online" is a preferred medium, at least for some students.

There are two basic forms of real-time online reference that schools can consider offering to their students: web-based chat and instant messaging.

Web-based Chat Reference

Web-based chat requires that the library purchase server-side software (such as QuestionPoint). This software allows the library to set up a webpage with a built-in chat module. In short, students go to a specific webpage, click on a button to connect to a librarian, and then chat back and forth on the webpage. Web-based chat often has extra features, beyond simple chatting. Librarians may be able to "push" webpages to the student, which causes a webpage to open up on the student's computer without the student having to do anything. Librarians and students may be able to "co-browse," allowing both the librarian and the student to see the same page, as text is entered, search

buttons clicked, and so on. Web-based chat will also often provide both the student and the librarian with a transcript of the chat for future reference.

The downside to many web-based chat products on the market (besides the fact that the library has to shell out some serious dollars for the software) is that they have rather strict system requirements, due in large part to these extra features. Some services do not support browsers other than Internet Explorer, Macintosh computers, or certain firewall configurations. Some users experience a bad session due to these requirements and don't come back for a second try.

Cooperatives of this nature offer a large return on time investment, and significantly reduce the initial financial commitment from each library as all member libraries share in the cost for the purchase and maintenance of the software.

Instant Messaging Reference

Instant Messaging Reference works using free downloadable instant messaging software. Examples include AOL Instant Messenger (AIM), MSN Messenger, Yahoo! Messenger. To use this type of reference service, students must have downloaded one of these free chat programs onto their computers. The librarians must do the same.

This option is certainly attractive, as it allows the library to offer services to many of its students regardless of which chat program they prefer. The user's experience is this: in the chat program, the student will send a message to the library's screen name (e.g. "MyLibrary"), and then the librarian & student chat back and forth.

The chief downside to Instant Messaging is that, unless you cooperate with other libraries, you cannot possibly offer the service for as many hours as a cooperative web-based chat service can provide. Currently, I do not know of any group of libraries that is cooperatively offering Instant Messaging Reference, but I think this would be a huge leap forward. Just as libraries can cooperate with a web-based chat service, why can't they cooperate to offer IM services?

Empowering Libraries means Empowering Librarians

10 Roles for Empowering Librarians - Seeing an empowered and empowering librarian as:

1. **A gateway to the future and to the past**. Providing Internet access is a necessary function of the school library. This demands from us a sense of obligation to provide this type of service as a major step towards connecting students with the information they seek.

2. **A collaborative teacher and learner**. A librarian should actively seek out users in a variety of settings to provide instruction and inspiration. It is of utmost importance for Greek libraries to have as a primary goal the empowerment of the school librarian's role – both as a teacher of students who collaborates with classroom teachers in the design and delivery of instruction, and as a colleague who attends local library staff meetings and national conferences on a regular basis.

3. **A knowledge manager/worker**. The school librarian's future is in doing what computers cannot do. Computers can collect, identify, and organize information. The librarian should therefore be an information 'lifeguard', in order to protect clients from drowning in the information overflow.

4. **An organizer of networked resources**. Librarians need to take the initiative in creating a better sense of organization and access to what is available on and through the school databases, investigating the feasibility of cataloging and organizing Internet resources.

5. **An advocate of information policy development**. Librarians need to become involved in policy decisions concerning resources and services in order to ensure users rights of universal access are respected, as well as issues of intellectual property rights, censorship and privacy.

6. **A community partner**. Libraries need to make themselves felt in the community as a valuable resource and tool for students and the local community.

7. **A "sifter" of information resources**. The Internet provides access to excess. Skilled sifters are needed to help students make sense of the searched resources and put them in some preferred order. The future belongs neither to the conduit nor to the content players but to those who control the filtering, searching, and sense-making tools we will be relying on to navigate through the expanses of cyberspace.

8. **A collaborator with technology resource providers**. Librarians should be involved in the development of the databases and search tools needed for effective exploitation of digital and web technologies. Librarians should become designers, synthesizers, and navigators.

9. **A technician**. With the increasing use of the Internet, librarians may find it necessary to expand their skills in this area. Librarians will need to provide technical advice on workstation configuration, modem access, networks, etc.

10. **An individual information consultant**. Librarians will focus more on individual, customized services and controlled access/facilitation by remote users.

The Web is not enough: The Web-search tools are not sufficient: As library use decreases and with more and more information found online on the Web, will we still need reference, even e-reference librarians? A search of the World Wide Web will turn up only the online information. Instead of that, certainly a National Library or every other library has sources more accurate and reliable. Especially a library-to-library services operation with reference experts submitting patrons' questions online guarantees more the thorough tracking of the existing material and pusses away the danger of many times "dull" web sites with strange scopes and motives. Steven Bell, director of the library at Philadelphia University, says "librarians need to know much more than just mainstream librarianship to maintain their professional vitality" and we would like to add that librarians need to practice librarianship for their country's and their nation's good, feeling technology as a good mean for teaching people and learning by their collaborators. Really is the Internet always everything? It may catch the moment, the year, the decade but surely without the librarian's collaboration it can't give birth to everything. That's why and most of e-reference projects named "Ask a Librarian". The Internet itself does not go where the information is and research is a multi-library process. Information can be true and still wrong. Only after a comprehensive investigation can be objective.

Social Issues:

- Staff-Staff collaborations

Despite the stereotypes, librarians are not solitary types. Just as other workers do, they interact with colleagues to get their work done. One of the great contributions of ethnography to our vision is to reveal the complexity of these kinds of interactions. They can be both formalised, where a complex task is broken down and tackled by a number of people with varying levels and different kinds of expertise, and also informal, where a problem arises and people creatively use their colleagues as resources to help them work around the problem and come up with innovative solutions. Frequently, ethnographic studies have revealed the creativity and flexibility with which people deal with exceptions to the normal flow of work. Staff-staff collaboration can be learning-oriented as well as work-oriented. A powerful and effective way of acquiring skills is by working alongside more experienced colleagues Staff-staff collaboration can be learning-oriented as well as work-oriented. This is known as the socio-technical design challenge. It involves determining what should be built not merely by reference to what is technically possible, but what would be useful to the organisation and acceptable to the organisation. Collaborative work is necessarily social. Thus a system that flouts social rules, norms or customs, even if it does useful things, may fail to be used. The key to selecting, or developing, successful collaborative systems appears to involve an understanding of what is currently done, and designing systems that not only can mesh with that way of working, but can adapt gracefully as people change their way of working over time.

I think it is very important what Abbas summarizes a number of roles that others have identified for future librarians:

- **Librarian as gateway to future and to the past.**
- **Librarian as teacher**
- **Librarian as knowledge manager/worker.**
- **Librarians as organizers of networked resources.**
- **Librarians as advocates for information policy development.**
- **Librarians as community partners.**
- **Librarians as "sifters" of information resources.**
- **Librarians as collaborators with technology resource providers.**
- **Librarians as technicians.**
- **Librarians as individual information consultants**.

The Importance of Digital Reference in Supporting Critical Thinking in Distance Education – What skills Librarians should have:

Knowledge Skills
• Have an appropriate level of literacy and numeracy skills • Be able to identify, access, organize and communicate knowledge in both written and oral English • Have good listening skills • Have an international awareness Have the ability to use appropriate technology to further the above
Thinking Skills
• Be willing to challenge current knowledge and thinking • Have conceptual skills • Have problem-solving skills • Be creative and imaginative thinkers • Be able to combine theory and practice • Be able to reflect on and evaluate their own performance

The field where academic and national librarians can be partners is e-educating students in librarianship. So, we seek to expose them to the benefits and the difficulties that are associated with remote or digital reference and to become increasingly aware of the processes that are involved in information seeking. Learning is structured so that students first read widely to develop a sense of the issues and problems that are being studied and argued, and then develop a situation or problem-based scenario that can be addressed. Once such a problem scenario has been developed, the students then think through the possible approaches to take to resolve the various aspects of the problem and the types of resources and services that would assist in its resolution. In addressing this scenario, they also consider the audience or individuals concerned, the education and

facilities that they can likely access, the suitability of the available systems, and services to which they will have access.

Policy – Management:

The chief administrative officers on The Committee of Libraries and that of the National Council for Libraries and Archives bear the administrative responsibility, through the active leadership of e-library administration, to supervise library services in support of the 'Empowering Libraries' programme. As the principal and direct agent of 'e-guidance' implementation, the two government foundations have the obligation to:

1. assure that the e-services plan meets national and also regional accreditation standards as well as professional association standards and guidelines;
2. provide and elaborate, on an ongoing basis, a suitable interactive 'interlibrary' e-services schedule, including instruction and the facilities utilized. The innovative approaches used in the design and evaluation of special procedures or systems that meet these electronic needs in other countries are encouraged;
3. prepare a written profile of the community's information and skills needs;
4. develop a written statement of immediate and long-range goals and objectives for virtual reference, a statement which addresses the relevant needs and also outlines the methods by which progress and a timetable of results can be determined;
5. promote the incorporation of the mission statement, goals, and objectives of remote services into those of every kind of library and of the originating institution;
6. involve librarian community representatives including administrators, faculty, academics, information scientists, governmental representatives and professionals, in the formation of the objectives and the regular evaluation of their achievement;
7. respect the special characteristics each library and each collection with regard to the development and periodic review of formal, documented, written agreements with them;
8. Assess the written profile of needs as well as the existing library support for distance learning nationwide, its availability, appropriateness and effectiveness - using qualitative, quantitative, and outcome measurement statistics. Examples of these measures include, but are not limited to:
    1. using evaluation checklists for librarian instruction to gather feedback from students, other librarians, academic staff and researchers over a period of time;
    2. conducting reviews of specific library and information service areas and/or operations which support electronic library services;
    3. taking into account e-services in the assessment strategies related to national endorsement;
    4. participating together with administrators, library subject specialists, and the teaching faculty, in the curriculum development process and in planning to ensure the appropriateness of library resources and services according to the profile of needs;
    5. promoting library support services to the community with a planned marketing strategy, monitoring and assessing both the appropriateness of their use of services and resources and the degree to which needs are being met and skills acquired;
    6. maintaining a continual 'survey dialogue' with school library users;
    7. initiating dialogue aimed at establishing cooperative agreements, possible resource sharing and/or compensation for unaffiliated libraries;

8. developing partnerships with computing services departments such as The Greek National Technical University in order to provide the necessary automation support for the librarian community;
9. practising, applying, and maintaining all the above through the establishment of a virtual environment that will not only facilitate the provision of information but also offer guidance to real knowledge;
10. keeping in mind that the system must also recognise other languages and be helpful in understanding questions posed by those, for example Greek is a foreign language;
11. organising a schema with the following characteristics:

- being patron -centred
- being interactive and dynamic
- enabling group work on real time problems
- enabling patrons, particularly students to determine their own learning pathways
- emphasizing competencies such as information literacy to support lifelong learning.

Plan for Empowering our Libraries, Empowering our Education System - Using research results to shape policies that optimize the utility of libraries:

- **Key Policies and Practices for Adults and Children:** to support the cultural, educational and recreational needs of the people, with special emphasis placed on the basic skills of literacy and numeracy. The management of stock in libraries, ensuring sufficient depth and range, is a fundamental consideration in meeting this aim; to provide public access to the widest possible range of information services which meet the information needs of the community in order to support lifelong learning, combat social exclusion and contribute to the quality of life in the community in all its aspects - whether educational, economic, cultural or recreational - and contribute to an informed democracy.
- **Encouraging Participation in Informal Learning:** to establish close links with the Lifelong Learning Service by locating both services in an Education and Lifelong Learning Department; to ensure access to funding from the Learning and Skills Council to support improvements in library access and in the establishment of informal learning opportunities.
- **Development and Monitoring of Reading and Learning Activities:** to establish three main areas of activity: Children's Services, Mainstream Reader Development, and Closer Involvement in Learning Activities.
- **Promote Learning:** to ensure the ongoing delivery of learning activities with key partners, including the delivery of a Museum and Library Education system, the Pilot implementation of the 'Inspiring Learning for All' methodology, and the dual use of school libraries for young students and for elderly lifelong learners.
- **Promotion of reading opportunities and support of existing groups is a key priority:** to facilitate the successful implementation of the People's Network infrastructure as well as a good and supportive relationship with the Council's ICT section.
- **Development and Evaluation of Digital Services:** to establish a network of local and metropolitan community-based libraries; to continue to extend opening hours; to expand the Mobile Library Service to provide better coverage - currently a weekly service - with additional provision in disadvantaged wards; to establish

good community links and partnerships fostered by a National Virtual Reference Desk.

- **Develop Libraries as a Community resource:** to set up a *Routes to the Past* Neighborhood Learning Program, a Young Roots Cinema Project, and a Young Roots *Back Home* Project; to develop "out-of-hours" and wider community use of school library buildings; to hold surgeries, as well as advice and training sessions with partners.
- **Offer Services Accessible to all**: to improve the physical environment for children with disabilities; to develop a marketing plan for online services; to encourage 'the exception of the exception'; to emphasize that all categories, despite nationality and capacities, can be parts of the school library community; to create a Virtual Reading Room as part of the Virtual Desk with reading lists, online book reviews, and more.
- Our Philosophy: Typically the key ideas of a learning society are that learning is life-long and that learning must occur in all areas of society enabling everyone to develop through formal and personal learning how they want to, when they want to and where they want to. We believe that a collaborative library service plays a key role in developing school effectiveness. This will be achieved through support and advice in the development and improvement of libraries, through the use of learning resources, the development of effective information handling skills, and access to wider reading choices for all. Inside an interactive and cooperative framework the school library can become the first and most important access point to the world of information and personal development. The 'difficult to reach' or even the seemingly 'impossible to reach' become 'easy and fun to reach', empowering the participant in the learning procedure. The learner, rather than the institutional structure, is placed at the centre of future developments. Many services delivered and maintained along historical patterns will have to change fundamentally if they are to provide for the people which libraries serve. This calls for performance measures to be set for all collaborative strategies.

Conclusions

Librarians must develop and fund expanded services to meet the demand created by the new distance learning in the Cyberspace Age. Librarians must teach distance learners the Internet, Netscape, World Wide Web and access to a variety of CD-ROM databases. They must also prepare "how to" research guides and make them available electronically. Distance learners should also take a special computer applications course as soon as possible in their distance education program. Course work in information technology should also be expanded. Some other areas for development include: on-line tutorials, such as a library instruction homepage.. Faculty should work with librarians to anticipate distance learners' needs and develop strategies to meet them.

Only once the primary library concerns of staffing and funding can be settled, can library services begin to exploit the technology available today to better serve their on- and off-campus students. Distance learning using information technology grows continuously in the Cyberspace Age. As more students attempt to accommodate their studies around busy family and professional lives, it promises to become increasingly important in providing an alternative to traditional on-campus education. Only by

planning to meeting these challenges of this new environment, will libraries be able to serve the higher education community of the 21st Century.

"I have always imagined that Paradise will be a kind of library." Jorge Luis Borges had said. It has been underlined that "libraries are much more than repositories of books and reference material. They are, increasingly, vibrant hubs of community life." We can take further steps in this direction. The adoption of a formal definition of how libraries and librarians support lifelong learning in an interactive way, rather than simply as a resource provider, is not just a theoretical question concerning only the librarian community but is a very serious matter for the empowerment of our national education. The library is becoming an increasingly essential partner in the local, regional and national library and information network. By sharing facilities and/or resources with any type of library, such as a public library, the unique aims of the metropolitan library can be materialized and maintained.

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