Designing Schools for the Information Society

LIBRARIES AND RESOURCE CENTRES

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FEATURE

DESIGNING SCHOOLS FOR THE INFORMATION SOCIETY: LIBRARIES AND RESOURCE CENTRES

Introduction

The roles and functions of the school library are changing rapidly and in fundamental ways.

Among the events which are driving change in the functions, and therefore in the organisation, location and physical requirements of schools and especially their library resource centres, are:

• the wide (but uneven) take-up of the new information and communication technologies;
• the development of the information society with its increased dependence on a knowledge-based economy;
• the emergence of lifelong learning for all as the goal in all OECD Member countries.

In response to these changes the OECD Programme on Educational Building (PEB) arranged a seminar for some 70 delegates from 22 countries in Lisbon, Portugal, from 16 to 18 June 1999.

The issues addressed by keynote speakers, group discussions, case studies and visits included:

• the impact of the new information and communication technologies;
• changes in the nature of learning, and the widening range of people engaged in learning and of the people who teach;
• changes in the relationships between the school library and a number of other groups including the local community, other libraries and the private corporate sector;
• the need for equity in the provision of access for everyone to school library resources.

The seminar programme included presentations by Professor Roberto Carneiro (Portugal) and Edwyn James (OECD), case studies from Australia, Austria, Belgium, France, Italy and the United Kingdom (see Contacts, p. 17), and visits to Portuguese schools to observe significant innovations in school library design and operations.

It is appropriate to acknowledge the co-operation and excellent contribution to the organisation of the seminar by the Ministry of Education (DEGRE), Portugal.

Summary of outcomes

• The school library is no longer a repository of printed information. Its functions include the provision of access to existing information, the creation of new knowledge expressed in many media and the interconnection of people.
• The new information and communication technologies are central to the operation of the school library in the information age.
• The school library is now a community asset. What once might have been seen as the heart of the school is now also central to the improvement of the quality of life in the community. There are new users and therefore new stakeholders in the library of the information age.
• New roles, responsibilities and work practices will apply in the libraries of the future.
• Each school library will be part of networks to which it will contribute and from which it will draw resources for learning and teaching.
• New arrangements will emerge for the capital and recurrent resources required to build and to operate school libraries in the information age.
• The transformation to the libraries we will need in the future will be best achieved by building on the best of what exists rather than imposing new requirements from outside.
• As the new libraries evolve with their increasing capabilities in the new ICT, they must help close opportunity gaps and widen access for everyone to the resources for learning.

While the initial focus was on the school, the scope of the discussions quickly extended to include community libraries and the relationships between schools and communities in which everyone will be a learner in the “information age”.

The report which follows describes the main outcomes of the seminar. The aim of the report is to provide a set of guidelines for people involved in the design of new and existing schools – especially those involved with school libraries and their links with the local community. It has been prepared by Dr John Mayfield (consultant from Australia).

There is no one correct way to design schools or school libraries for the information age. The outcomes of the Lisbon seminar will provide, however, a useful reference list or checklist of aspects to be taken into account when decisions are being made in the context of specific schools and their communities.
Seminar Outcomes

1. “The library is no longer only the library.”

Every speaker, each case study and all the visits to local schools confirmed the fact that the roles and functions of the school library have changed and are continuing to change along with changes in the nature of education in society.

The pace of change varies according to the particular circumstances and priorities of specific communities, but the patterns of change are clear and well illustrated by the diversity of names, which are now given to what was once the recognised heart of the school: the library.

Names such as Library Resource Centre (LRC) and Educational Resource Centre (ERC) illustrate the widening of resources from books to include tapes, videos, CD-ROMS, the Internet and an increasing range of electronic information services.

Names such as the Learning and Information Centre (LIC) in Austria and the Centre for Documentation and Information (CDI) in France reflect the special importance of the new information and communication technologies in the libraries of the information society.

Names such as Mediatec, Media Resource Centre (MRC) and Community Media Centre (CMC) convey the idea of a new concept of the library as a place in which knowledge is both consumed and created through media such as photography, television, radio and electronic multimedia, in addition to the traditional medium of print.

And names such as the Local Learning Centre (LLC) and the Community Learning Centre (CLC) are a clear indication both of a new range of users of the school library and a new focus on active learning rather than merely the retrieval of information.

The trends suggested by these new names have been in existence for some time but as both Carneiro and James observed, the argument for change is now stronger, the pace quicker and the direction of change towards an active centre for learning less able to be ignored.

Several speakers drew attention to related societal factors including the impact of information and communication technology; emergence of lifelong learning as a necessity in the 21st century; the rise of the knowledge economies; limitations on the availability of public funding for education and the tension between maintaining local or regional identities in the face of globalisation.

There were references to the implications of change for the people involved in the traditional roles and functions of the school – the librarians, classroom teachers, administrators, support staff and those responsible for the provision and equitable distribution (often according to outmoded formulae) of financial, human and physical resources.

Seminar participants seemed in no doubt, however, that lasting and fundamental change has occurred in the role and functions of the school library and anyone designing a school for the information society will have to take these changes into account.

The library is no longer a warehouse of stored information to be requisitioned and consumed by visiting readers. That passive role remains, but to it has been added much more creative roles in which new knowledge is produced through many media and by a much wider range of people connected to each other and to the world.
2. “The new information and communication technologies are central to the operation of the school library in the information age.”

Different countries and different communities within countries are at different stages in their take-up of the new information and communication technologies (ICT) and it will be essential to introduce the new ICT into the school library at a level of sophistication and a speed which are in harmony with the capabilities and aspirations of the particular community. The new ICT is not a panacea. It is not to be “idolised” or viewed as anything more than a tool – albeit a powerful one.

There is no doubt, however, that the advent of the new ICT has brought about fundamental change in the ways in which people live, learn, work and recreate and no school library could be properly designed for the information age without due consideration being given to the place of the new ICT.

The computer, Internet, Intranet, on-line services, CD-ROMs, digital video discs and the recent appearance of fast, wireless, multimedia, personal, satellite-linked devices have created both the need and the means for people (especially young people) to:

- access and interact with a range of education, entertainment and information services;
- publish and distribute new knowledge;
- connect anytime and to anyplace to people with whom knowledge can be discussed, reconfigured and transformed into new knowledge.

These three functions of documentation, publication and connection, which have been made possible or given new meaning by the new information and communication technologies, are now central to the operations of the school library in the information age.

The changes brought about through the new ICT are irreversible. As Carneiro observed: “There will never again be a time when the Internet does not exist”.

There were frequent reminders that, important as it undoubtedly is, the information and communication technologies remain a tool. Their proper role is limited to the facilitation of interaction between people – between teacher and learner, between teachers and between the learners themselves.

Through the appropriate use of the new ICT many schools have become gateways to the world’s information and to people as near as the next workstation and as far away as the other side of the planet.

The creative potential of the computer was stressed by speakers such as Edwyn James and Clive Marsden (United Kingdom) and clearly demonstrated in the visits to the schools where the integration of the technology and the library into the curriculum, social activities and day-to-day management of the school was evident.

Two quite new services related to the introduction of the new ICT are likely to be provided by school libraries. Many school libraries will serve as:

- ICT centres for both the school and the community offering access to the latest machines for local people including small business;
- ICT training centres to improve skills and enhance local employment opportunities.

3. “The school library will no longer serve only the school.”

There are new learners, new users and new “customers” to be taken into account in designing the school library for the information age. For example in one visited school, the library operates until midnight each weekday to enable adults from the community (and
some students from the school conferring in real time with “classmates” living in very different time zones to use the library as a learning centre. In another school, seminar participants saw young children in the school library teaching schoolteachers how to use the latest available information technology and to access information via the Internet.

All the international case studies illustrated how school libraries now serve not only the school but also:

- other schools and school libraries by sharing electronically teaching and learning materials;

- adults from the local community especially in gaining knowledge and skills relating to their employability.

The idea emerged of a continuum with, at one extreme, the conventional school library central to the operation of the school and conceived primarily as a service to school children while, at the other extreme, a library owned by the community in which, in the information age, everyone will be a learner all of their lives. One of the highest priorities of such a community learning centre would be to serve the needs of the youngest members of the community – the school children.

This is a very powerful idea expressed in various ways in the seminar especially by Carneiro, Tim Sandercock (Australia), Paolo Benesperi (Italy) and Marsden. It constitutes a response to the demand for lifelong learning for all, and it offers one practical solution to the problem of providing access for everyone in the community to the new technologies, which in turn will enable learning at any place and at any time.

The essence of the idea is not new. Its evolution can be traced through various forms of school and community libraries and the opening up of the school to the community including industry and commerce. In France, for example, the original mission of the primary school library included the provision of services to teachers and parents. In time, however, ownership by the school has tended to exclude the community in favour of the needs of the school in which it was considered that all the “real” learning took place.

The point is, however, that in the information age everyone in the community (including the children) will be learners. The need for access to the resources for learning will apply as much to adults (the aged, people who are in work or who are engaged in retraining, the unemployed, etc.) as it does to children.

The people, the technology, the spaces for learning and the resources of the library will be needed by all members of the “learning community”.

Given the limits on capital and recurrent funding, the school library is likely to be the only library available.

The school library is therefore likely to become more of a community learning centre serving at least four groups of learners in different ways and at different times but with equal priority:

- children;
- teachers;
- people who require knowledge skills and understandings for their personal development (including employability);
- the community, which needs knowledge, skills and understandings to sustain a continuing movement towards improved operation of the community and a better quality of community life.

4. “New roles, responsibilities and work practices will apply in the school libraries of the information age.”

Any shift towards the location of the school library as the heart of the community (as well as the heart of the school) will require significant changes to the traditional roles of people such as the librarian and the teacher. For example:

- Libraries will be open all hours rather than being restricted to school hours.
- Responsibilities which were once focused on the management of stocks of printed material will now be extended to include the management of such technologies as radio, the computer and devices which generate multimedia publications.
- The role of “custodian of the repository of information” will expand to incorporate the active facilitation of access to remote multimedia resources and the creation of new knowledge.

The impact of these changes in work practices will be felt beyond the library. Changes in the function of the library are likely to create pressures for change in the role of other teachers and administrators in the schools of the 21st century.

It is worth noting that different countries and different communities will be at different stages of readiness for these changes. Broad national prescriptions for new roles and responsibilities (and new designs for library facilities) may be at odds with specific local needs, and there seems little doubt that opportunities
for local management at the school and community level will be appropriate as we enter the new century.

The opening up of the scope of the school library activities means that new partners (e.g. local business, other linked libraries) may be involved in the determination of physical design, overall management and day-to-day operations.

In designing any school for the information age it may well be appropriate for some elements to be determined by reference to school curricula and be the same in all schools. In the context of the school library, however, there is no doubt that design for the information age will need to take into account the emergence of new partners, owners and stakeholders. There is also no doubt that the requirements of these new players will be determined locally and in the context of the local learning community.

5. “The library will be part of a network.”

No school library designed for the information society will operate as a stand alone, independent, self-sufficient entity.

The experience of Portugal in establishing its school library network over the last decade is illustrative of the linkages and the interdependence which will characterise school libraries of the future.

Possibilities exist for the school library to be interactively linked with corporate library and information services ensuring that vocational education is more closely related to future employment requirements and creating opportunities for industry and business in the local community to access education and information services.

Libraries of the future will also be linked with the home, the workplace and with community institutions.

Advantages of these linkages will include opportunities for the school library network to share scarce or infrequently used resources and to take joint decisions on which special resources for learning will be developed by individual members of the network for the benefit of all.

It is therefore likely that a particular library will by choice and in collaboration with other network members become known for one or more special content areas taking responsibility for establishing a comprehensive and responsive collection of learning resources in a form which is accessible by anyone using the network.

Specialities developed by particular school libraries could range from a selected curriculum area to the presentation of a unique local feature of national or even international interest. The discovery of Roman necropolis on the school site at Mertola (one of the schools visited) is an example of a local feature of wide historical interest which can be shared with interested students all over the world.

In designing a school and its library for the information society one necessary consideration will be those specialities or signatures which will be developed by the school – no doubt in collaboration with elements of the school community – which will set it apart and help establish its identity in the network of which it is a member.

6. “There will be new arrangements for capital and recurrent funding of school libraries in the information society.”

As the school library is transformed from a service confined to the needs of a particular school to a service which is part of a network and open to everyone in the community, a very different set of resource arrangements needs to apply.
Calculations based on such parameters as “number of children enrolled” or on nationally applied standards are unlikely to be an appropriate response to real local needs for space, technology, personnel or operating finance.

New sources of funds for the school library are likely to include:

- revenue from the sale of education and training services to members of the community including local enterprise;
- proceeds from the provision of special teaching and learning packages distributed on-line through the library network;
- funds from community sources (e.g. local government) in response to the opening up of the library for community use;
- fees from the hire of learning spaces and technology.

There will be opportunities to be found in the rationalisation of library services in some communities and economies to be gained by the sharing of library facilities and services between educational institutions.

However, the main resource need of the 21st century school library will be human rather than physical or financial resources. There was strong agreement at the seminar that while the new ICT might lead to changes in the roles of the people involved in the library, it would never replace the people who facilitate, guide, encourage and indeed teach library users.

It was agreed that the need for competent people would, if anything, increase and a number of practical suggestions for augmenting the available human resources were made. For example:

- a partnership between schools and the university in Lyon has led to the university students being
granted an option to work in local primary school libraries as an accredited part of their undergraduate course;

• the allocation of monitor roles to school students – the excellent results of which were evident in several school visits;
• the integration of the library into the regular classroom programmes of subject teachers;
• the involvement of parents and members of the community as volunteer library aids;
• sponsorship and the purchase of advertising space in newsletters by local enterprise.

One possibility with significant implications for the design of physical facilities and for the organisation of the library is that in future some school/community libraries may be only partly resourced as a public educational service with the expectation that additional revenue will be raised by the sale of educational services. It is not clear if this “business model” for the library of the information society will become commonplace. As Carneiro pointed out, the business case for education is not yet as well developed as the case, for example, for entertainment services. Nevertheless, if lifelong learning for all is as critical to the sustainable development of a community as many, including Carneiro, suggest that it is, then new resources will need to be found to augment those currently available to the existing school libraries.

One approach may well be to strike a balance between the public and the private funding of the school/community library. Roberto Carneiro explored the idea of a new balance when he spoke of a new relationship between learning as the right of every individual and the moral obligation of every individual to engage in continual learning in an age when learning is the one critical factor in sustaining the prosperity – in the widest sense – of the community.

These are important new ideas with significant implications for schools as well as their library services, and on these matters the seminar participants were not unanimous.

7. “Build on existing strengths”

There is a very great disparity between the reality of what exists in many school libraries and the ideal circumstances proposed during the seminar.

Given these differences it is important to stress that the ideas and conclusions of the Lisbon seminar need to be interpreted in the particular context of member countries and even in the context of individual schools and their communities.

The aim is to build on the best of what currently exists to add value and to commence a process of planned and sustainable evolution rather than impose a revolutionary and often unsustainable imported solution.

Some of the models discussed at the seminar are simply not transferable to some situations. For example, the reality for many communities is that the school will continue in roughly its present condition and, at its centre, the school library. To attempt to wrest the library from the school to establish an inclusive community learning centre would almost certainly fail.

However, to work with the school and its library staff, building on what exists to create greater overlap between the library and the other “loci of learning”, such as the home and the workplace, is possible in any situation. Many of the case studies and all of the visits provided clear evidence of transformations which had been achieved largely by collaboration between the school and its community members.

In particular, the worst (and in some respects the easiest) mistake in planning for schools of the information age would be to act as if the new information and communication technologies will of themselves bring about necessary change.

8. “The new school library must help close equity gaps and widen for everyone access to learning opportunities.”

There are important equity issues to be taken into account when designing schools for the information age. Significant gaps already exist between countries, within countries and even within local communities in terms of access to the new information technologies and all the opportunities which the new technologies can open up.

The new ICT can and must help close these gaps by being accessible to the whole community.

A person without access to the new technologies or left with competence in operating the new technologies is likely to be worse off in the 21st century than an illiterate person in the 20th century, and it is worth remembering that it may not be the children in a community who are at the greatest risk. Very often the most computer competent are the young.

It will be important to consider rural and isolated communities (some of whom by such reason as language or age are to be found in the largest of urban areas) as well as those who are ICT poor for other reasons in ensuring that inequalities are not exacerbated by the developments already foreshadowed.
Deliberate planning for advantaged schools (and their libraries) to network with distant and/or poorer schools is one possible step in the design process. Collaboration between schools, between schools and other learning institutions and between schools and local enterprise can ensure that the benefits of a new or redeveloped library are shared more widely and enhance the opportunities available rather than creating or widening an opportunity gap. The issue is access for all – not just for some members of a community.

None of the innovations which result from the Lisbon seminar will be of consequence unless they are transferable to other communities – especially those in which access to appropriate opportunities is already low.

Implications for design

Each of the main outcomes of the seminar described above needs to be taken into account in the design of schools for the information age especially in relation to the design of the library. In addition to these outcomes a number of general issues were identified in the seminar as having implications for school and school library design.

(a) Responsive designs

The point was made in several group reports that it is unlikely that one agreed standard will emerge for the design of a school library appropriate for the information age. Not only will different circumstances apply in different countries and communities, but it will also be prudent to wait until the implications of evolving forces are clearer than they are at present. More than one participant drew attention to the need for caution and the advisability of designing library buildings so they could respond to future change.

One group suggested that the best response would be to make the buildings ambiguous. This would force the users to make their own sense of the spaces provided, reconfiguring and shaping the interior spaces to suit uses as they emerged.

Another group stressed the need for adaptability and for the opportunity to be created for the buildings to evolve as the nature and extent of demand for space changes.

Plans of recently designed school libraries were shared. The layout of the Learning and Information Centres to be provided in Austria and the school-community Library Resource Centre and IT Centre to be constructed at the Caroline Springs Project in Australia are two examples of designs which reflect many of the key aspects described above.

(b) The need for ICT to be pervasive

Whatever emphasis is placed on the design of the library there will be a need to ensure that the opportunities to access learning resources are distributed throughout the school building and beyond. There are implications here for the cabling of the school and the development of electronic and software systems which make ICT a pervasive element in the day-to-day life of the school.
(c) Ways of learning and teaching

One of our host librarians echoed an important point made by Carneiro when she explained that there were three kinds of learners who came to her library:

- those who knew what they were after and needed no help;
- those who did need some help to access the resources they needed;
- those who were just lost and (for whatever reason) needed a person to help them find their way.

In Carneiro’s terms there is learning which is taught, learning in which there is a guide or facilitator, and self-learning.

Whichever way we look at it, the design of the library – whether it be the heart of the school or of the community – will need to provide the spaces in which each of these kinds of learning can best take place.

Above all, learning is a social process. The technologies we use – including the built technology – will be helpful only insofar as they facilitate interaction between people.

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References


BMUK (1999), Die LIZ-Schulbibliotheken (The LIC School Library), Vienna.


