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Tedd, Lucy A.

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Library co-operation and ICT in the UK: an overview

Lucy A. Tedd

Lecturer, Department of Information Studies, University of Wales Aberystwyth

Department of Information Studies

University of Wales Aberystwyth

Aberystwyth SY23 3AS

Wales

UK

e-mail: **lat@aber.ac.uk**

Abstract:

An overview of cooperative and ICT-based projects in British libraries is provided. Many of the early projects of the 1970s and 1980s have ceased but some have developed into current working services. During the 1990s the UK government funded various initiatives to improve the learning opportunities for its citizens whether through formal education courses at colleges or universities or by 'lifelong learning'. Descriptions are given of the Electronic Libraries Programme in Higher Education Institutions and the People's Network in public libraries, and current developments in these sectors as well as in the national libraries of Britain, Scotland and Wales are provided. Sources of further of information are also given.

1. Introduction

This paper attempts to bring together the range of co-operative activities related to the use of information and communications technology (ICT) in libraries in the UK. It is based on a presentation given at a major Italian conference La biblioteca condivisia: strategie di rete e nuovi modelli di cooperazione (Shared library networks: strategies and new co-operation patterns) that was held in Milan in March 2003. La biblioteca condivisia was supported by the Lombardy Region, the

Provincial and City Government of Milan and organised by staff from the Italian library journal, *Biblioteche Oggi,* in collaboration with the Associazione Italiana Biblioteche (the Italian Library Association). The 2-day conference, with 20 speakers from various regions of Italy as well as Spain and the UK, was accompanied by an exhibition involving about 100 companies and organisations. La biblioteca condivisia has now been held for eight consecutive years and has become one of the most important events for Italian librarians (http://www.bibliotecheoggi.it/con/). A paper providing an overview of library co-operation and ICT in Italian libraries was published in 2002 [13].

2. Historical ventures (1960s –1980s)

In a book written in 1977 I referred to the 1970s as being the 'co-operative systems' phase of development of computer-based library systems and followed on from the experimental phase and the local systems phase[17]. Examples of some of these co-operative systems are given here and it can be seen that some have succeeded and are   providing relevant services in the 2000s whereas others are not.

2.1 BLCMP – Birmingham Libraries Co-operative Mechanisation Project

The aim of this project (funded initially by the UK government) in 1969 was to develop a co-operative cataloguing system for the university libraries of Birmingham and Aston and the Birmingham Public Library. (This was an early example of academic and public library cooperation). The project developed successfully over the years .. particularly in the growth of its database of records (currently over 17 million MARC-based records) and the development of an integrated library management system. The 'project' evolved into BLCMP Library Services and more recently (2001) into Talis Information Ltd (www.talis.co.uk). Talis now has over 110 users in public, academic, special and college libraries in the UK and Ireland. Over the years a number of other developments have taken place including the use of EDI – Electronic Data Interchange for linking with booksellers, the UNITYWeb service for linking catalogues of many libraries in the UK and the use of TDNet for e-journal management.

2.2 SWALCAP – South West Academic Libraries Co-operative Mechanisation Project

 As BLCMP, this project was also funded by UK government in 1969 with the aim of developing a library management system co-operatively. Initially three university libraries were involved: Bath, Bristol and Exeter. The project grew during the 1980s and a library management system, LIBERTAS, was developed and marketed by the organisation that became known as SLS (SWALCAP Library Services) Ltd. By the late 1980s LIBERTAS was a popular choice for a library management system in many UK university libraries. Fuelled by its success in the UK market SLS began to sell the system overseas. Two public libraries in Sweden (Malmö City Library and Gothenburg City Library) implemented the LIBERTAS software in 1992 and by the mid-1990s there were SLS customers in Greece, Iceland, Portugal and Spain. In 1997 it was announced that the American firm, Innovative Interfaces, was to 'join forces' with SLS and soon after it was announced that development of LIBERTAS would cease.

2.3 SCOLCAP – Scottish Libraries Co-operative Automation Project

SCOLCAP was formed in 1973 by a group of librarians representing the National Library of Scotland (NLS), three university libraries and two public libraries. The co-

operative grew during the 1970s and 1980s and by the mid-1980s there were some 22 members using bibliographic services partly made available via the British Library. In the late 1980s there was a need to develop a system specification for the planned SCOLCAP 'stand-alone' library management system and then to award the contract and deliver the system. There were many problems with this process which finally resulted in the eventual demise of SCOLCAP in 1988 [10].

2.4 LASER – London and South Eastern Library Region

In 1971 LASER was the first of the regions within the UK to set up a union catalogue system which could be used primarily for interlibrary loan purposes and was mainly based on records in the 80 or so public libraries in the area,. Staff from LASER have been involved in a number of co-operative and research projects over the years including, for example, the COVAX (Contemporary Culture Virtual Archive in XML) project which involved other EU (European Union) partners including ENEA (the Italian National Agency for New Technology, Energy and the Environment)[20]. LASER was a key player in the setting up of the EARL (Electronic Access to Resources in Libraries) consortium for Public Library Networking in 1995. EARL provided public libraries with a number of successful demonstrator projects including Familia (a web-based directory of family history resources held in public libraries in the UK and Ireland), Ask a Librarian and EuroGuide. LASER and EARL both ceased to function in 2001.

2. 5 CURL and COPAC

The Consortium of University Research Libraries (CURL) started in the 1980s with seven libraries (Cambridge, Edinburgh, Glasgow, Leeds, London, Manchester and Oxford). Since then it has continued to develop a physical shared union catalogue (sometimes referred to as a physical clump) and now offers access to this online via COPAC – CURL OPAC. (see www.copac.ac.uk) . By 2003 COPAC provides access (for free) to the catalogues of 23 of the largest research libraries in the UK and Ireland and includes some 20 million MARC records. In addition the new COPAC V3 interface also enables virtual searching of the catalogues of the British Library, the NLS and the National Library of Wales (NLW). Staff at COPAC have worked hard at developing de-duplicating algorithms to make retrieving items easier. Figure 1 shows an example of the result of a COPAC search with the bibliographic record and the list of libraries which hold copies of that item.

Following the success of COPAC a feasibility of setting up a national union catalogue for the UK was undertaken in 2000 [16].

3. Government funding to boost the use of ICT in libraries during the 1990s

During the 1990s there were various initiatives to increase the use of ICT in libraries in the UK. The main reason for this was to improve the learning opportunities available for UK citizens whether through formal education courses at colleges or universities or by 'lifelong learning' initiatives available via public libraries. These initiatives have resulted in a number of co-operative activities between individual libraries as well as between libraries and other agencies.

3.1 Electronic Libraries (eLib) Programme

Following a report (known as the Follett Report) in 1995 of a study of libraries in higher education institutions (HEIs) in the UK the JISC (Joint Information Systems Committee- a body which top-slices the monies given to all HEIs) allocated about £20m to fund 70+ projects between 1996-2000 which would explore the ways in which ICT could assist libraries. The projects covered a number of areas including: digitisation, preservation, images, electronic journals, resource discovery as well as education and training and the impact of electronic library development on library and information staff. In providing a personal overview of eLib, its Programme Director, Chris Rusbridge, notes that it was "aiming for a sea-change, a cultural shift: to see libraries taking on these new technologies in an enthusiastic way" [15]. This paper by Rusbridge is published in an e-journal, *Ariadne*, which itself is a result of an eLib project. Each eLib project had a number of partners, some of which were commercial organisations and so there were many issues related to co-operation within the eLib Programme. Full details of the eLib projects and the evaluations are available at: http://www.ukoln.ac.uk/services/elib.

3.2 People's Network

As part of its commitment to delivering the benefits of lifelong learning to every citizen in the UK the Government has resolved to use ICT to deliver those benefits as quickly, as widely and as cost-effectively as possible. Public libraries, of which there are over 4,000, located in every community in the UK, have been placed at the centre of this commitment. As the then Minister of the Department of Culture, Media and Sport, Chris Smith, said in 1998, "they are our street-corner universities". Known as 'The People's Network' the aim is to connect all public libraries to the Internet.

The following funds have been committed for this project:

- £100m (or 160m euros) for developing the network infrastructure;

- £50m (or 80m euros) for content creation or the digitisation of relevant resources;

- £20m (or 32m) for relevant training for all public library staff.

Full details of the current state of the People's Network project are provided at http://www.peoplesnetwork.gov.uk. Developing the People's Network has been a mammoth undertaking and has needed co-operation at all sorts of levels.

For library staff this has involved much extra training :

- in basic ICT skills (often achieved using the ECDL – European Computer Driving Licence);

- in general issues related to use of ICT for reader development, resource management, information literacy etc.;

- for specific roles e.g. Net Navigator, Educator, Information Consultant

Many organisations have been involved in providing this training. For example, staff at the Department of Information Studies at the University of Wales, Aberystwyth have produced a range of open-learning workbooks (in Welsh and English) and have run a series of face to face workshops for staff working in public libraries in Wales [18].

4. Co-operation in different library sectors

4.1 Public Libraries

The public library system in the UK has a long history of co-operative activity and, as indicated earlier, the huge investment of monies from the People's Network has been a major catalyst in this area. As in other countries, the UK librarians are working much more closely with staff from other organisations such as museums and archives. This was formalised in the UK with the setting up, in 2000, of Resource: the Council for Museums, Archives and Libraries (www.resource.gov.uk). As described on its website the role of Resource is to " provide the strategic leadership, advocacy and advice to enable museums, archives and libraries to touch people's lives and inspire their imagination, learning and creativity." Resource delivers this mission through its core roles of:

- providing strategic leadership;

- acting as a powerful advocate;

- developing capacity within the sector;

- promoting innovation and change.

In fulfilling these roles Resource works in partnership and collaboration with a wide range of institutions, umbrella bodies, government departments and national and international organisations and realises that such co-operation is necessary for its success.

There are a number of other UK government initiatives currently in place which also impact on staff in public libraries. I will mention just three of these:

- UK Online (www.ukonline.gov.uk) which provides access to 900+ government websites with an aim to make to easier for a UK citizen to find and access specific information. By 2005 it is hoped that many of the transactions with government departments will be carried out online and public libraries will have a role to play [12].
- UK National Grid for Learning –NGfL (www.ngfl.gov.uk) which is a gateway to educational resources on the Web.
- University for Industry (UfI)and learndirect (http://www.ufiltd.co.uk). The UfI aims to put individuals in a better position to get jobs and improve career prospects and this is achieved by courses available (often online and sometimes in public libraries) from learndirect.

A current development within Resource is related to regional co-operative systems and Berube dicusses developments in the Co-East consortium of 10 public library authorities (www.co-east.net) in delivering digital reference services [1]. Co-east aims to use ICT solutions to enable members of the public to easily obtain resources from libraries in the region comprising the East of England. Co-east is also responsible for managing some national services that had originated from work at EARL including: Ask A Librarian and Familia.

There is also a large number of co-operative initiatives involving public libraries in the home countries of Northern Ireland, Scotland and Wales. I will just give some examples from Wales:

- A.co-operative OPAC and library management system (using Talis with a bilingual English/Welsh interface) amongst three library authorities in North Wales (http://talisweb.talnet.gov.uk/)).
- Possible consortia for acquisition of electronic information sources such as Oxford Reference Online (www.oxfordreference.com), Know UK (www.knowuk.co.uk), Xreferplus (www.xreferplus.com). This is under development at the moment.
- Gathering the Jewels [5]. This is a £1m. project which involves the digitisation of the "jewels" from some 200 libraries, museums, archives, and record offices throughout Wales (www.gtj.org.uk)
- CultureNet Cymru. This £1.5m. three-year project which starts in 2003 will be an all-Wales, bilingual cultural ICT network and will be involved in developing digital content from a number of cultural organisations, including libraries within Wales.

A review of public library services in Northern Ireland is provided in a report detailing plans for future public library developments and collaborations [6].

4.2 National libraries

There are three national libraries in the UK: the British Library, the NLS (www.nls.uk) and the NLW (www.nlw.org.uk). Staff at both the NLS and the NLW are very much involved in co-operative developments in their respective areas. For instance the Gathering the Jewels project is based at the NLW and some staff from the digitisation team at the NLW, who have developed a wealth of experience in managing digitisation projects, have been seconded to work on the project. In Scotland the NLS is a member of the consortium (along with the National Archives of Scotland and SCRAN – the Scottish Cultural Resources Access Network (www.scran.ac.uk) and over 100 Scottish archives and libraries) for Resources for Learning in Scotland (www.rls.org.uk)).

Within the British Library in London many of the ongoing co-operative ventures are detailed on the Concord website for the BL's Co-operation and Partnership Programme (BLCPP - see www.bl.uk/concord). The BL's CPP was established in 1999 and its purpose is to encourage and facilitate partnerships and collaboration in the key areas of:

- access;

- collection development;

- preservation and retention;

- record creation;

- bibliographic services.

This is achieved by working with other organisations in the library, archive and museum domains; bringing people together through a programme of seminars and workshops and funding practical co-operative projects.

Examples of collaborative projects that are in line with the UK government's agenda of 'digital access for all' are provided by the Chief Executive Officer of the

BL in a conference paper in 2001 [3]. She notes that partnerships are part of the BL's current strategy and that the BL would "initiate and maintain effective partnerships with organisations which have stake in our activities and functions to achieve more in partnership than we can do on our own.". Brindley's examples of collaboration included:

- archives and museums (e.g. Resource);

- publishing and wider commercial sector (e.g. Legal deposit of digital materials; Scholarly communication in Europe (European SPARC (Scholarly Publishing and Academic Resources Coalition));

- higher education(e.g. creation/delivery of digital learning and research materials; mapping of resources; user guidance and navigation tools);

- public libraries (e.g. access initiatives; empowering the learning community; resources for lifelong learning; digital content for the People's Network).

One outcome of these collaborative ventures has been the setting up of the DPC - Digital Preservation Coalition [2]. Preserving the digital heritage of a nation is a challenge facing staff in all national libraries. In the UK the DPC aims to "secure the preservation of digital resources in the UK and to work with others internationally to secure our global digital memory and knowledge base" (see (www.dpconline.org)) The BL is one of a number of national bodies which are members of the DPC.

4.3 Academic libraries

The Joint Information Systems Committee (JISC) is an independent advisory body that supports further and higher education in the UK by providing strategic guidance, advice and opportunities to use ICT to support teaching, learning, research and administration. Funding of the eLib projects was administered via one of JISC's committees. JISC is responsible for a number of co-operative initiatives which impact on academic libraries (www.jisc.ac.uk). These include:

- the Joint Academic Network(JANET) – which is used by all higher and further education establishments for access to the Web;

- information services/data centres such as MIMAS (Manchester Information and Associated Services – www.mimas.ac.uk) which provides access to a range of types of information as seen in Figure 2 and the Arts and Humanities Data service (AHDS – www.ahds.ac.uk);

- collection development for electronic information sources (at present there are some 80+ sources available often at special rates e.g. 200+ institutions have signed up for Gale's InfoTrac database);

- advice and guidance on specific issues (e.g. disability issues from TechDIS (www.techdis.ac.uk) and image digitisation from Technical Advisory Service for Images -TASI (www.tasi.ac.uk));

- funding of ongoing projects such as the Information Environment, preservation and authentication.

There is also a number of geographically based co-operative schemes between academic libraries in a given area. The eligibility and rights offered vary and a list of some 45 schemes is provided by SCONUL – the Society of College, National and University Libraries at http://www.sconul.ac.uk/SconulAccess.htm. One example is the M25 Consortium of Higher Education Libraries. This consortium of 39 member libraries was formed in 1993 with the broad aim of fostering co-operation in order to improve services to its academic users. The five main goals of the consortium are: access; resource discovery; collaboration and marketing; mutual support; and advocacy, marketing and communication. The M25 consortium was a partner in one of the eLib projects on developing a virtual 'clump' or union catalogue and that is one of the services that it currently offers its users as can be seen in Figure 3.

Another outcome from eLib that is of relevance to users of academic libraries has been the Resource Discovery Network (see www.rdn.ac.uk). This links a number of specialised services in specific subjects. There are 60 educational and research organisations including the Natural History Museum and the British Library collaborating in the RDN which is described on its website as " a co-operative network consisting of a central organisation and a number of independent services providers called hubs". Staff at the hubs are responsible for bringing together a range of Internet resources which are carefully selected, indexed and described in a standardised manner.

Finally in this section I will briefly mention the UK's e-University (http://www.ukeuniversitiesworldwide.com).This was launched in 2001 as a co-operative venture of several UK universities with courses scheduled to start in Autumn 2003. Supporting students who are studying at a distance can be challenging (in my department we have had many years of experience in running distance learning courses in information and library studies) and SCONUL has proposed an e-U Library Hub [7].

5. Examples of other co-operative ventures

There are many examples of library staff who have come together to develop services for their users co-operatively using ICT solutions. Here are just a few examples.

a) Subject specialists

Specialists in specific subjects often have informal co-operative links which, in some cases, become more formalised. JISC supports many mailing lists and these are often used for those wishing to co-operate with others with similar needs. Other links may be formed through the branches of international organisations. For instance members of the UK and Ireland branch of the International Association of Music Libraries, Archives and Documentation Centre (http://www.music.ox.ac.uk/IAML/) are involved in a number of co-operative projects including:

- CECILIA – to provide an online guide to the music collections in libraries, archives and museums in the UK and Ireland.

- ENCORE – an online catalogue of sets of performance music held in UK libraries.

Staff involved in the history of medicine at the Wellcome Library in London describe ways in which they have created the MedHist gateway which provides access

to a searchable and browsable catalogue of quality web-based resources. Because of the interdisciplinary nature of the subject it was not obvious that it had a natural 'home' in any of the RDN hubs and a solution to this problem was to use Open Archive Initiative Protocols to share metadata records [14].

b) Librarians with special interests

The JISCMail facility (www.jiscmail.ac.uk/mailinglists/category/Library.htm) supports mailing lists for librarians with special interests. Here are some examples:

- Claud-cymru – for those in academic libraries in Wales concerned with access for users with disabilities;

- Reader-development – for those interested in reader development activities in public libraries.

In particular there are specialist groups for those librarians whose work involves special processes or materials. Examples here include:

- UK Serials Group (www.uksg.org.uk);

- National Acquisitions Group (www.nag.org.uk);

- Cataloguing and Indexing Group of CILIP (http://www.cilip.org.uk/groups/cig/cig.html).

c*) Chief librarians*

There are several examples where heads of library services have come together to develop a joint system. Froud [9] describes a consortium of four public libraries in England that have come together to implement a library management system and Frawley [10] describes a major project in Northern Ireland to implement the ELFNI project – Electronic Library for Northern Ireland. In the academic sector West [19] describes a consortium of Welsh university libraries that was formed following the demise of the LIBERTAS system that they had all previously used.

6. Sources for further information

Apart from links to the websites of organisations already mentioned there are some other sources of information on aspects related to co-operation:

a) UKOLN – the UK Office for Library and Information Networking (www.ukoln.ac.uk)

UKOLN, based at the University of Bath, is a centre of expertise in digital information management and provides advice to staff in the library and information fields by:

- influencing policy and informing practice;

- promoting community-building and consensus-making by actively raising awareness;

- advancing knowledge through research and development;

- building innovative systems and services based on Web technologies;

- acting as an agent for knowledge transfer.

In particular staff at UKOLN act as focal points in particular areas including:

> Metadata;
>
> Open Archives;
>
> Interoperability (covering museums and archives as well as libraries);
>
> Public Library Networking.

A report of a workshop organised by staff at UKOLN for public library web managers gives an idea of the some of the issues related to the e-government initiative [11].

b) *Info@UK* (www.britishcouncil.org/infoexch/info@uk/info@uk.htm)

InfoUK is a monthly e-bulletin concentrating on issues related to the Information Society in the UK and is produced for the British Council by staff at the Information Management Research Institute at Northumbria University.

c) *Update*.

Library + Information Update is the monthly journal of the Chartered Institute of Library and Information Professionals –which was formed in 2002 following the unification of the Library Association and the Institute of Information Scientists in the UK. For example, the theme for the February 2003 issue of *Update* was e-learning. Some of the content of each issue is available online at www.cilip.org.uk/update.

7. Final thoughts

In an overview paper such as this I have only 'dipped' into the huge range of co-operative and ICT activities that are affecting libraries and librarians in the UK. I have not mentioned any of the co-operative activities involving libraries and librarians in the UK with colleagues in other parts of the world… and there are very many such activities.

Key developments in all sectors are related to :

- Social inclusion (to overcome the digital divide and provide access to information for all, including those with disabilities)

- E-methods for delivery of information (be it to university students, school children, citizens)

- Lifelong learning for all – and often involving e-learning solutions.

In assessing the impact on staff of ICT developments in public libraries, Brophy [4] notes that:

- The effects of ICT on staff are profound as roles change, there are new responsibilities and new relationships are formed.

- There is a need for staff to be consulted and handled sympatheticall.y

- ICT exarcebates the challenge of co-operation across organisational boundaries and the need for staff to co-ordinate their work with that of others.

- There is a need for staff to continuously update their ICT-based skills.

Finally Froud [9] outlines some lessons learnt when setting up a consortium that might be of value:

- There is a need for trust between all partners (no-one must have a hidden agenda).

- Support and enthusiasm for the co-operation is vital for all members.

- There needs to be tight project management with designated personnel (although there will inevitable be time lags in a co-operative approach).

- There needs to be clear terms of reference for all members.

- There needs to be good channels of communications for all members.

I will end by re-iterating some of Lynne Brindley's words about co-operation and co-operative projects within the British Library which aim "to achieve more in partnership than we can do on our own".

References

1. L. Berube Digital reference overview. Paper presented to La Biblioteca condivisia. Milan. 13-14 March 2003.

2. N. Beagrie. An update on The Digital Preservation Coalition. *Dlib Magazine*, 8 (2002). Available at : http://www.dlib.org/dlib/april02/beagrie/04beagrie.html

3. L. Brindley. The changing landscape for collaboration: the UK perspective. Paper presented at the EduCause Conference Australasia 2001, Queensland. (2001) Available at:
www.gu.edu.au/conference/educause2001/presentations/Lynne_Brindley.ppt

4. P. Brophy. *The evaluation of public library online services: measuring impact.* Issue Papers No. 1. (2002). Available at:
http://www.peoplesnetwork.gov.uk/impact/impact-issue-paper.pdf

5. J. Curtis. The 'jewels' of Wales go live. *Y Ddolen*, 33 (2002),12

6. Department of Culture, Arts and Leisure Northern Ireland *Tomorrow's Libraries: a review of public libraries in Northern Ireland.* (2003) Available at:
http://www.dcalni.gov.uk/pdf/Tomorrow%27s%20Libraries.pdf

7. P. Dolphin and P. Brophy. International developments: developments in the UK. *Journal of Academic Librarianship*, 28 (2002), 251-254

8. R. Frawley. ELFNI (Electronic Libraries for Northern Ireland Project) : an overview. *Program* 37 (2003)

9. R. Froud. The benefit of Foursite: a public library consortium for library management systems. *Program* 33 (1999),1-14.

10. B. Gallivan. The Scottish Libraries Co-operative Automation project (SCOLCAP). *Catalogue and Index.* 98/99 (1990), 5-8.

11. P. Garrod. Creating websites for e-citizens: the Public Library Web Managers workshop 2002. *Ariadne* 34 (2003) Available at : http://www.ariadne.ac.uk/issue34/public-libraries/

12. P. Garrod, A tour around local e-government, interoperability and the role of the public library. *Managing Information*, 10 (1) (2003),40-2.

13. T. Giordano. Library co-operation on ICT in Italy: an overview. *Program* 36, (2002),144 –151.

14. D. Little. Sharing history of science and medicine gateway metadata using OAI-PMH. *Ariadne*, 34, (2003). Available at: http://www.ariadne.ac.uk/issue34/little/

15. C. Rusbridge. After eLib. *Ariadne* 26. (2001) Available at : http://www.ariadne.ac.uk/issue26/chris/intro.htm

16. P. Stubley, R. Bull and T. Kidd. *Feasibility Study for a National Union Catalogue*. (2001) Available at : http://www.shef.ac.uk/uni/projects/uknuc/NUCrep.pdf

17. L.A. Tedd. *An introduction to computer-based library systems*. London:Heyden (1977)

18. L.A. Tedd. Cyfle Newydd: ICT training for public librarians in Wales from DIS/UWA: some experiences so far. *Y Ddolen*.33 (2002) 16.

19. C. M. West. Scrum Five: the Welsh universities' library system consortium. *SCONUL Newsletter*,16 (1999)11-15

20. R. Yeates. An XML infrastructure for archives, libraries and museums: resource discovery in the COVAX project. *Program*   36 (2002*)* 72-88

Figure captions

Figure 1. Screenshot of a record retrieved from a search of the COPAC union catalogue.

Figure 2. Examples of types of information source available in the MIMAS service from Manchester University.

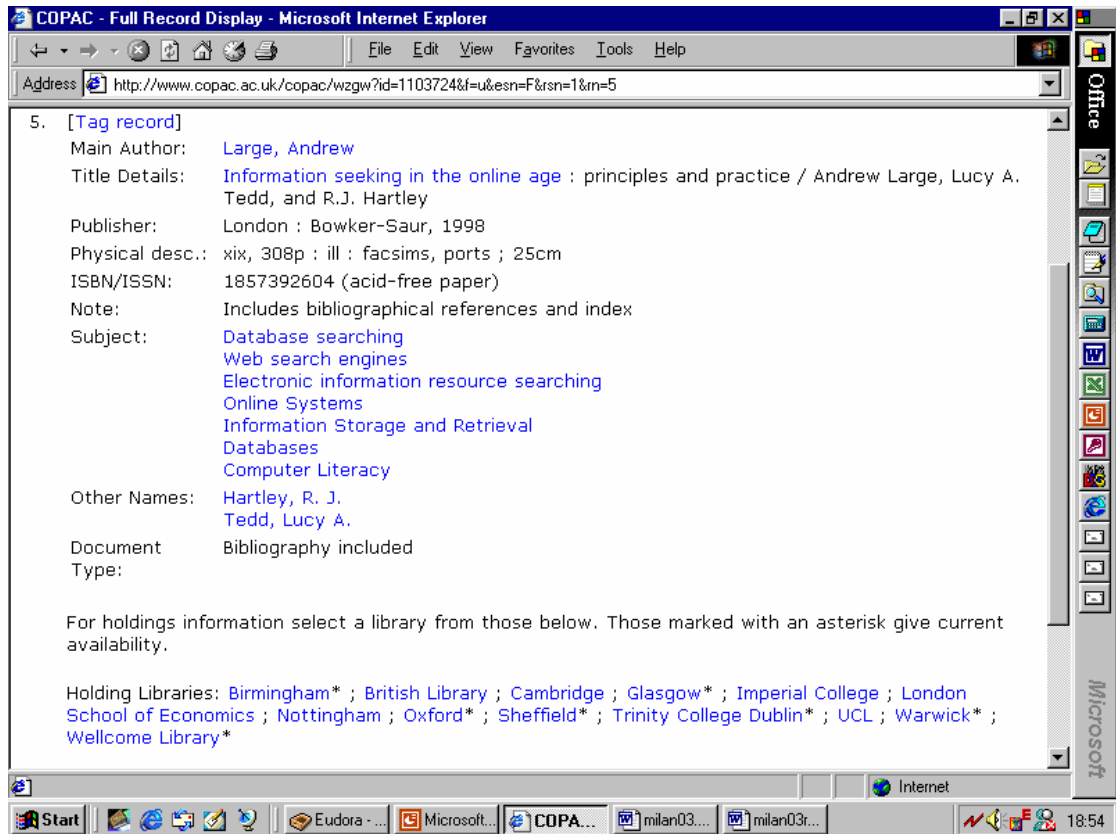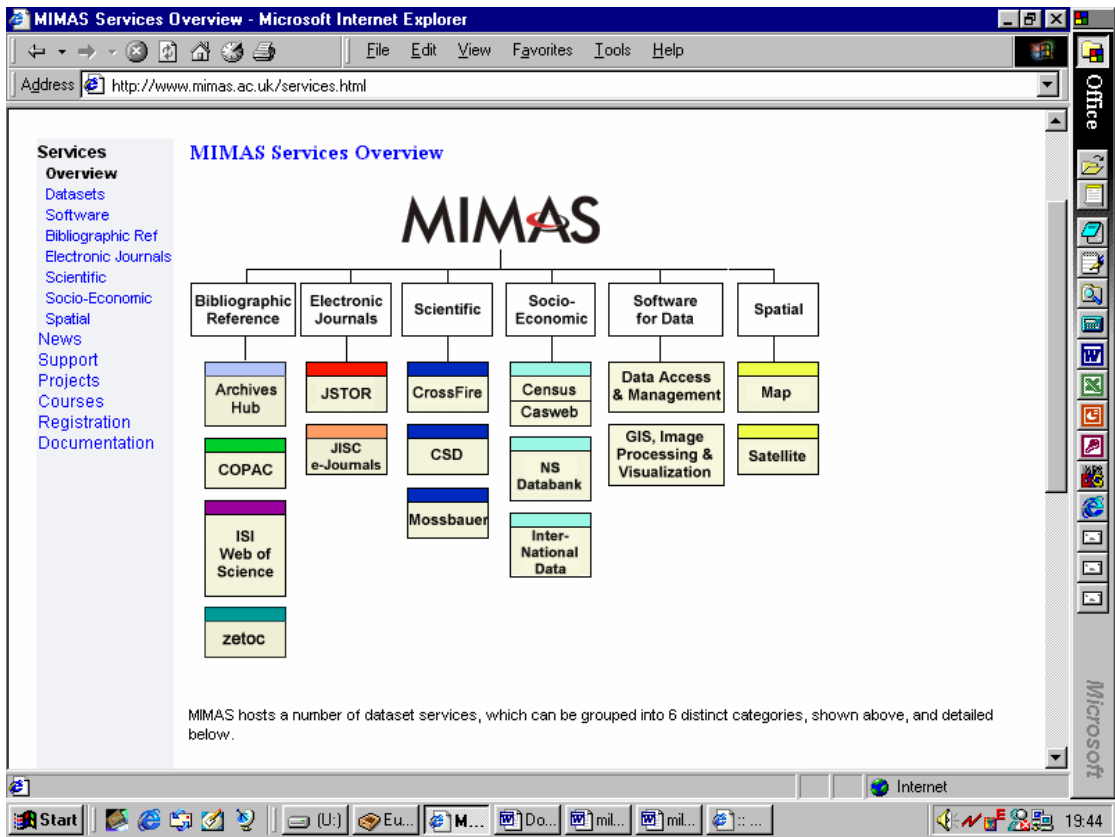Figure 3. An example of a search of a virtual "clump"

Figure 1

Figure 2

Figure 3

File   Edit   View   Favorites   Tools   Help

Address   http://m25demo.lse.ac.uk/Link/search?todo=select+catalogues+from+list

☐ City University   ☑ School of Oriental & African Studies
☐ Goldsmiths College, University of London   ☐ School of Pharmacy
☐ Imperial College of Science, Technology and Medicine ☐ South Bank University
☑ Institute of Education   ☐ St. Mary's College
☑ King's College London/Courtauld Institute of Art   ☐ St.George's Hospital Medical School
☐ Kingston University   ☐ University College London
☐ London Business School   ☐ University of East London
☐ London Institute   ☐ University of Greenwich
☐ London Metropolitan University (formerly LGU)   ☐ University of Hertfordshire
☐ London Metropolitan University (formerly UNL)   ☐ University of Kent at Canterbury
☐ London School of Economics and Political Science   ☐ University of London Library
☐ London School of Hygiene and Tropical Medicine   /Heythrop College, University of London
☐ Middlesex University   ☐ University of Surrey Roehampton
☐ Queen Mary, University of London   ☑ University of Westminster
                                                                       ☐ Wellcome Library for the History and Understanding of Medicine

Select ALL Catalogues

Search Type   **Search Terms**

⚪ Author / Title   **Enter one or two words, phrases or names.**
⚪ Periodical title
⚪ Identifier (e.g. ISBN, ISSN)   [   ]   [and ▼]
⚪ Subject
⦿ Keyword anywhere   [   ]

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