1. Introduction

This is not so much one case study as a description of outcomes from a series of cases, based on our experience at Middlesex University in different but related projects concerning the modernisation of libraries in developing countries.

For many years, libraries, particularly academic or special libraries, were stable institutions, purchasing books and printed journals to the extent that their budget would allow, cataloguing and classifying them and then making them available by placing them on open shelves or closed stacks. Libraries in developing countries were in the same situation, except that their budget was less and the books and journals more expensive because everything they received had to come by post half way round the world at great cost. So they could buy even less. Academic libraries in general discarded only books which were damaged unless they ran out of space in which case they might have to select carefully material for disposal.

Libraries were staffed by librarians who had been taught the same kinds of topics as their grandfathers (or should I say also their grandmothers) before them. In many cases this still applies in a number of developing countries. The course curriculum for librarians has never been updated to take into account electronic sources of information, electronic journals and now e-books.

2. Armenia

Armenia is one of the countries which used to be in the Soviet bloc. Science and technology was good and libraries were good though traditional. Before we began to work with Armenia, we were aware of some of the problems of libraries in the former Soviet Union. In a visit to a State Linguistic University library in Siberia which wanted to obtain funding from the European Union to extend their library to hold more books, we discovered a good traditional library but with no access to e-resources (only via an Internet cafe, nothing to do with the library though in the same building which, incidentally, had direct access to the internet with no password control). However we also discovered that the library was full of textbooks from the Soviet period which had formerly been given out by the library to students for the duration of their courses but which were all recalled to the library as they were no longer used (and so filled the library shelves).

Middlesex University had contacts with Yerevan State University and ways were explored of securing funding from external sources to modernise the library. At the point in time at which Middlesex University became involved they already had installed the library automation system Aleph in the central library as part of an Armenian consortium to produce a union catalogue. The outcome was that in order to enable further modernisation of Yerevan State University Library, a project was undertaken with European Union funding.

The European Union Directorate General for Education has established a programme for support of improvement of Higher Education in the southern Mediterranean area, the Balkans and the former Soviet Union republics, known as TEMPUS[i], which has two strands:

- 1. Improving the curricula for subjects taught, taking into account not only the content but also the form since the European Union has established the Bologna Process which provides a uniform structure for degrees in Europe but which countries on the fringes of the EU are beginning to comply with.
- 2. Reforming the management structure of the universities, for example in those countries where faculties are stronger than the centre encouraging a strengthening of the central administration; and more importantly in this context, improving the libraries so that they are brought into line with EU libraries

The project under discussion here was under the category of improving management structures and it was called *Building Digital Educational Services and Content Creation Centre in Yerevan State University library* and had a number of features. Working with Middlesex University (the grantholder for the European Union project) and Hanover State University, a Virtual Learning Environment (VLE) was set up, and a gateway to eresources was mounted on a server. Inter library loans were also provided from the project and the project paid for some electronic resources. Academic staff very enthusiastically prepared materials for the VLE so this aspect of the project proved to be very successful.

One of the problems encountered was that librarians were generally approaching retirement, therefore had been trained many years ago and only knew how to deal with books. They had no knowledge of information technology procedures such as passwords. They thought it the responsibility of computer specialists to provide passwords and to illustrate how to use the databases and as for promoting databases they were not interested as they had no idea how to do any promotion or even of the importance of ensuring that users were familiar with electronic resources and knew of their existence and how to use them.

There were two occasions in which academics and librarians from Yerevan State University (YSU) visited the libraries of Middlesex University in London and Hanover State University. Workshops were held and visits were made to other libraries such as the British Library of Political and Economic Science at the London School of Economics which is a flagship library for the social sciences. Indeed a member of their staff was Russian and she was able to help with the visits, since before 1990 Russian was the official language in Armenia and educated people other than some very recent graduates know it very well.

eIFL (Electronic Information for Libraries), set up originally by the Soros Foundation, helps libraries in developing countries to negotiate good deals with information providers which means primarily licenses for e-resources. This is a very important role because since the fall of the Soviet Union many leading institutions have been unable to continue

to purchase journals to which they had already subscribed before. Printed journal subscriptions have gone up in price. E-journals cost very little to provide and so publishers can charge only a small license fee without making a loss. eIFL have helped to secure good deals for Armenian libraries outside our project but YSU was included in this and so of course we took advantage of these licenses and took these as examples and demonstrated how these could be better promoted. However if a library holds a physical journal run which stops when the materials are replaced by digital, who can know that this is continued by an e-journal and how will it be findable unless it is indicated in the catalogue with the means to access it.

As another activity, the Middlesex University Databases Librarian gave a demonstration of e-resources, based on presentations given in Middlesex, and one of the YSU senior librarians was very surprised and could say only that she had never realised that librarians could show such enthusiasm for their work (or words to that effect).

Much as we did to encourage a different way of thinking, it had no or little effect in the university library. We realised that we needed to look for a way of changing this situation.

3. Syria

eIFL were also a partner in another project funded by the European Union under the TEMPUS programme with which Middlesex was involved, led by Robert Gordon University of Aberdeen, to establish a strategic framework for electronic libraries in Syrian Higher Education[ii]. This involved a pilot to set up digital services in Aleppo and Al Ba'ath universities. From this project we discovered a number of problems.

In Syria, students tend for the most part to go to university in the region where they live. Damascus has a library science department but Aleppo does not. Therefore students residing in Aleppo do not study library science. Most of the librarians in Aleppo had had no formal library training but had moved into the faculty libraries from having been students in the same faculties. We thought it would be good to have some kind of library science education in Aleppo. This was one important conclusion of the project[iii].

Part of our project was about automating the library as well as promoting e-resources. We installed Newgenlib[iv], an open source software package developed in India and set up a website to list the resources that were available. We held a workshop at Aleppo to show how the e-resources could be found in the catalogue and promoted. We obtained temporary passwords in case the ones that were available for Syria had not been implemented (as indeed they had not!). A few librarians were present and even fewer academics. However some academics, in particular those who had been educated abroad were very enthusiastic about this but privately seemed of the opinion that not much could be done as they did not think the librarians would embrace the new technologies. At Al Ba'ath we had a workshop which was better attended by academics, but we had the problem that website that provided the easy way in to the resources was not at first accessible as it was on a Middlesex website and Middlesex was blocked because of the last three letters of the name. It was an illustration of the presence of high

level staff in the workshop that it took only a few minutes to get this changed.

We held a final workshop and invited senior officials from both universities, We also visited the Ministry of Higher Education in Damascus. We discussed the need for training of librarians in modern techniques and the provision of e-resources, but were told that there were some serious problems. Students for bachelors degrees in Syria do not choose their degree but are allocated a subject though they change their mind and do a subject lower in the list. Librarianship is next to the bottom in importance followed by primary teaching. So long as librarianship has low status there seems little chance of getting many good libraries though having said that some qualified librarians we met in Damascus were very good though struggling with poor budgets. As far as e-resources are concerned, there were delays in signing contracts (they can be signed only by people at a very high institutional level) so the usernames and passwords could not be made available. Again even if contracts were signed it would be necessary for a senior academic to be the champion to ensure librarians knew these passwords and could inform the users. Librarians were not regarded as high enough to be obvious people to get access, but a Dean of Computing Science volunteered to be the champion. It also needs a champion to ensure that the e-resources are obtained.

4. Nigeria

Middlesex University had a Commonwealth Professional Fellow from an agricultural university in Nigeria and he did not know what resources were available to all libraries in Nigeria. We contacted eIFL and discovered that one of the government ministries in Nigeria had been involved in negotiating a deal but had never made it widely known. As a result, he was, on his return to Nigeria, able to contact them and they were able to make available to him their passwords to give access. It occurs to us that if these deals are made and no one uses them, the publishers and database providers are doing very well since they are receiving money, albeit small compared with what they charge one institution in western Europe, but which they would not have received otherwise and for which they are in fact providing nothing.

5. The general problem

All these activities lead me to believe that there is the possibility of a serious crisis in libraries, in certain developing countries. The first element that can fail is the access to electronic resources, particularly through the library service and the second is the promotion of these resources.

Hard copy journals need to be findable but they are physically in the library, but they do not need promoting in the same sense as electronic resources do because they are visible on the shelves. Electronic journals are more difficult to deal with because they are virtual and not visible. So they need to be made available in the sense that they need to be accessible and there needs to be awareness of these.

In libraries in the west it is felt that electronic journals need to be seen as part of the

service that is offered by the library. This in itself can be an uphill struggle anywhere. We feel that students who attend information literacy classes are for the most part aware of this but academics often look for their favourite journals or for specific articles in their favourite journals on Google and find them that way and do not realise that the licenses are supported by the library service. I myself have sat on the enquiry desk at Middlesex University Learning Resources and met academic staff who did not realise that electronic journals are anything to do with the library service. At Middlesex University and no doubt at the majority of UK universities the library has a limited budget and it has to decide which electronic resources to pay for. The job of deciding how to spend the journals budget is usually delegated to the library whose staff will take advice from academics on what is needed. Today many journals are in licensed bundles so it is not very easy to predict which journals in the bundles will be of interest to the members of a university, to ensure that they are at least promoted by being in the catalogue. Additionally there are free journals which are just as important. Fortunately there are services which will, for a fee, provide regularly updated catalogue records of the journals to which you have access and we have been taking advantage of one of these for the last year. Still they do not include everything the library users can access. In developing countries there are often national licenses made available to the whole country but the library must secure the role of making these available both by providing a list on a website or adding them to the catalogue to gain access to them and by being the agency to give out the passwords or make access possible in other ways if they are necessary for the users of the library. There are also the useful free journals accessible through the internet.

6. One solution

How can we ensure that e-resources are available to the end users in developing countries? One way is to train librarians in the requirements for making available and promoting e-resources. There are three ways to do this.

Newly qualifying librarians who attend library science courses need to be trained through new modules which recognise the existence of electronic libraries and the promotion of resources such as electronic journals. Promotion means making available as well as encouraging the use of these resources. These courses should not abandon the traditional subjects of library science but should incorporate the new into the old.

Currently employed librarians need to engage in life-long learning. Technology is such these days that no profession least of all librarians can stand still. In some countries that we have worked with for example Georgia they are very keen to modernise library training and have put in place through the Georgia Library Association an infrastructure for Life Long Learning.

Finally, librarians who were trained in an earlier era need to be trained systematically in the new technologies. This can be done by advanced masters course such as one that has been developed by Parma University (see below).

We therefore put in a bid to TEMPUS for another project which again was successful

with the intention to improve library education in Armenia. Because TEMPUS now prefer projects covering more than one country on the grounds that the same benefits can be applied from one project to more than one country, the project has included Georgia and Uzbekistan as well as Armenia. We also added archives since the European Union is interested in promoting archives training in an effort to improve civil society. This project is now under way. Currently (as of autumn 2009) ten professional librarians have been studying Information Science as students at Robert Gordon University in Aberdeen. They are also discussing curriculum development. They will return to undertake further training in Spring 2010. We also have the funding for library science and archival studies lecturers in certain institutions in the EU going to the three countries to teach modules and for practising librarians to go and demonstrate how e-resources are promoted. Eventually we will develop a new curriculum and teach it in a pilot year (academic year 2010/2011). A number of students in that pilot year will be able to undertake placements in the UK, Italy and Spain.

Incidentally we developed a similar follow-up programme for Syria (due to be led again by Robert Gordon University) but for bureaucratic reasons it was not accepted.

In this project which is now in its first of three years, we have discovered an interesting tension between traditional and modern courses in a way we had not expected. In one of the countries, in the university we are involved with, no one has applied recently to do library science so there was a feeling in the university that it is a course without a future and the counterproposal was to teach a course in digital librarianship. But first, librarianship as a traditional course has been discontinued. The University of Parma runs in conjunction with Oslo University and Tallinn University a course in digital librarianship for international participants under the Erasmus Mundus Programme[v] and this could be a model. Another one of the three countries with whom we are working already has the two distinct types of course, traditional and digital librarianship. However the participants in the project seem to want to sample the course in Aberdeen before jumping to conclusions as to the best way forward.

The idea is to develop a one year masters course which will enable students who have degrees at bachelors level in any subject to undertake further professional training. We hope also to promote life-long learning by providing each participating university with a training room and a server for course materials which can promote self-instruction. It may be possible to use materials from the modules from the masters programme in the life long learning programme.

7. Conclusion

This presentation began by illustrating instances of problems with electronic resources. It indicated that the problem can only be achieved by better training of librarians. Training is only one part of the jigsaw but a necessary part nonetheless. Other aspects are the technical, such as providing and maintaining computers and internet access in the academic libraries. We found in general less concern on our part for the technical aspects. The academic institutions had IT staff who supported the network and often

delighted in demonstrating to us access to e-resources, some of which had been made available by our projects. However they did not think (correctly up to a point) that it was their job to promote these resources as they were busy dealing with network problems which were their responsibility. However, it does indicate that there needs to be more contact between the IT staff and the librarians though there will be difficulties there. It has taken librarians many years to establish the best procedures in anything to with computers in libraries and no doubt we could do better. But let libraries in developing countries learn from our mistakes rather than developing everything themselves from the beginning again. Projects like the ones mentioned in this presentation will go some way to helping in this objective.

Acknowledgements

I am grateful for the help of Sue Hurley and Nazlin Bhimani of Middlesex University Learning Resources in the activities reported here.

[i] Tempus: Modernisation of Higher Education in countries surrounding the EU. http://ec.europa.eu/education/external-relation-programmes/doc70_en.htm

[[]ii] Establishing a strategic framework for electronic libraries in Syrian Higher Education. Website at: http://www.lr.mdx.ac.uk/tempus/syria

[[]iii] Johnson, Ian. Syrelib – future strategy for enhancing the global connections of Syria's academic community. 2009. http://www.lr.mdx.ac.uk/tempus/syria/Reports/Pdfs/Strategy_report_27_4_2009.pdf

[[]iv] The Newgenlib software is found at http://sourceforge.net/projects/newgenlib/develop

[[]v] The website is at http://www.mastersportal.eu/students/browse/programme/2444/dill-international-master-in-digital-library-learning.html