
The NHS-HE Forum

*Paul Ayris and
Malcolm Teague*

Authors

Dr Paul Ayris is Director of UCL Library Services and UCL Copyright Officer, a LIBER Board member and Chair of the Organizing Committee for the OAI Workshops at Cern.

Malcolm Teague became NHS-HE Coordinator in 2004 following 3 years as IT Project Manager at the new Peninsula Medical School and various NHS roles since 1982.

Email: p.ayris@ucl.ac.uk

Abstract

This paper discusses the formation of the NHS-HE Forum by Professor Roland Rosner in 2001. It looks at the aims and objectives of the Forum and maps current progress. The second part of the paper looks particularly at the NHS-HE Procurement Group and the later JISC NHS-HE Procurement Group, which are part of the Forum. These groupings have been partially successful in conducting joint procurement activity across the NHS and HE sectors. The publication of Dr Ian Gibson's Parliamentary Report *Scientific Publications: Free for All?* is seminal in progressing this joint activity. As of 1 February 2006, joint membership of the Public Library of Science has been achieved, but one joint procurement activity of commercial content has failed. Further joint procurement is planned, along with a mapping study of procurement activities and work on an Athens Account Linking Project. The library and informatics research components are coming to the fore with the use of a community-wide survey to establish the current situation and future plans for NHS-HE network connectivity and similarly the Mapping Study of Procurement Practices in the NHS and HE for content such as e-journals. This is moving to a more systematic approach than previously. The attempted joint procurement of selected journals has two joint aims: to support both research and clinical practice in the NHS and HE.

The Forum

In these days of wireless networks and home working, there is still great frustration among doctors, nurses, professions allied to medicine, clinical teachers and researchers that there is no seamless access between the NHS network and systems and those of the universities. This applies both to network connectivity issues stopping access to computer software applications as well as licensing and authentication issues making it difficult to share access to knowledge bases and e-journals.

In 2001 Professor Roland Rosner, Director of the Education & Information Support Division at UCL, brought together key ICT people from the NHS and the Higher Education sectors to discuss what might be done to resolve this long-standing and apparently intractable situation. As a result, the NHS-HE Forum was formed in November 2001.¹ Its first members included Robin Arak, who was to become Chief Executive of the UK Education and Research Networking Association (UKERNA); Ted Woodhouse (then IT Director of the largest NHS Trust in the country, Leeds Teaching Hospitals); and key national figures such as Jeremy Thorp, when he was Head of Infrastructure Policy at the Department of Health NHS Information Policy Unit. On the library and knowledge management side the inaugural members included Ben Toth, Veronica Fraser and Paul Ayris.

Since 2002 the Forum has met twice a year to share information and to champion a series of initiatives including:

- an agreed NHS-HE connectivity model using a client-server approach, developed by Andrew Cormack, Chief Security Advisor for the UKERNA, in association with the Forum²
- the identification and sharing of case studies where NHS-HE connectivity has been implemented in various ways — e.g., the All Wales Network and the Addenbrooke's Hospital (Cambridge) SHAUN project³
- the Thornhill Report, looking at how content could be better managed across the NHS and Higher Education⁴

- attempts to procure content jointly for the NHS and Higher Education sectors (for instance, important medical e-journal subscriptions); and
- the joint funding with the Joint Information Systems Committee (JISC) for the UK's Further and Higher Education Funding Councils of a NHS-HE Co-ordinator for two years, based in the business division of UKERNA, with a mission to support the work of the NHS-HE Forum throughout the UK in general and to take forward the connectivity side of the agenda in particular.

Current priorities

The activities of the NHS-HE Forum are being more widely broadcast, e.g. by exhibitions and posters at relevant conferences in 2005 and 2006 such as UCISA and the Healthcare Computing conference in Harrogate. The Forum has its own website at www.nhs-he.org.uk and recently its own JISCMail discussion Forum (you can join at <http://www.jiscmail.ac.uk/lists/NHS-HE-FORUM.html>). The result has been that the last two meetings in May and November 2005 had 50 people attending - at least three times more than the preceding meetings in 2004.

Our priorities are:

- improving access to content e.g. through joint procurement of e-journals
- improving NHS-HE connectivity – the NHS-HE Connectivity Project.

Other topics are emerging which relate to these main objectives:

- the development of Shibboleth (www.jisc.ac.uk/index.cfm?name=programme_cminfrastructure) and how that impacts on the interface between the NHS and HE
- developments in the Athens authentication system to improve access to all resources for members of staff with both NHS and HE entitlements
- NHS-HE projects that are running in parallel such as the JISC-funded CHERRI-PIE project (Common Healthcare Educational Recordings Reusability Infrastructure – Practice, Interoperability and Ethics)

- how best to support the plans for further development of clinical research in the UK

The NHS-Higher Education Connectivity Project

The aim of the NHS-HE Connectivity Project is to co-ordinate and support network connectivity between the NHS and universities involved with education and research in medicine, nursing and the professions allied to medicine. The objective is to achieve good interoperability between the NHS and HE networks that make it feel irrelevant to students and clinical teachers where they happen to be when accessing networks and resources, whilst also maintaining the appropriate security integrity of both networks. There is obviously proper concern in the NHS about patient confidentiality and the security of systems that hold information whose corruption is potentially life-threatening, but increasingly sophisticated approaches to ICT security and authentication make it possible to improve the interoperability of systems from the NHS with those in the Higher Education sector.

The main focus of the NHS-HE Connectivity Project at present is the development of the proposed gateway or gateways between the new broadband NHS network in England, N3⁵ and the UK-wide education and research network JANET.⁶ A Working Group has been established chaired by Dr Mark Ferrar, Director of Infrastructure Architecture, Security and Information Governance at NHS Connecting for Health.⁷ The Working Group is overseeing:

- 1 a survey of the community to better understand the existing and required NHS-HE connectivity – all Universities involved have been asked to complete the survey and the interim results have been considered by the Working Group and published on www.nhs-he.org.uk.
- 2 agreement of a few user scenarios that illustrate existing connectivity problems in a clear and straightforward way for external audiences
- 3 the development of a proposal for a pilot of an N3 JANET Gateway, incorporating the results of 1 and 2 above and also the

implications of new NHS England security policies and guidance that are expected to be published soon.

Benefits of connecting N3 with JANET

For students and staff:

- improved ease of collaborative working between NHS and university-based staff
- best use of work and study time and available resources
- independence from study or work location, whether in NHS or university
- no need for duplicate IT facilities such as PCs
- fewer usernames and passwords.

For NHS trusts and universities:

- help attract and keep the best students, clinical teachers and researchers
- improved ease of collaborative working between NHS and university-based staff
- cost savings through some shared network infrastructure
- cost savings through the avoidance of duplicate IT resources
- improved integration and efficiency of IT support
- cost-effective access to extra applications for some services from the other sector.

Although the main focus of the Working Group is on the gateway(s) in England, it is hoped that any gateways will assist the whole of the UK. The NHS in Scotland has its own N3 development so this should help. If you are interested in the NHS-HE Connectivity Project and would like to be involved in any way, or if you have a project that helps tackle the issues covered, then please contact M.Teague@ukerna.ac.uk.

Content Issues

The work of the Forum is not solely geared to technical issues. Content is a large part of its work. It is important that the Forum *does* have this dual emphasis, so that both connectivity and content issues can be tackled side-by-side. The work is being led by Paul Ayris for Higher

Education, by Veronica Frazer when she was NHS Library Advisor, and now by Ben Toth, Director of the National Knowledge Service (NKS).

One of the challenges of the Content work is that the NHS works separately in four home countries in England, Wales, Scotland and Northern Ireland. It is important not to lose sight of this perspective. On the Higher Education side, HE procurement at a national level is led by the JISC, the Joint Information Systems Committee of the Higher Education Funding Councils. The JISC also undertakes procurement and offers services to Further Education in the four home countries.

The aims of the Content work are to undertake research and development in the delivery of Content across the NHS-HE divide and, through this pioneering research activity, to identify new paradigms for supporting research and clinical practice in HE and the NHS.

Users First

An NHS-HE Content Group was formed, championed jointly by Veronica Frazer and Paul Ayris, to identify the Content issues. On the HE side, this was founded on earlier work and discussion undertaken by CURL, the Consortium of Research Libraries,⁸ with input from Glasgow, Edinburgh, Sheffield and UCL. At this time, the main output of the Content Group was the *Users First* Report, commissioned by the Content Group.⁹ This Report undertook research into the issues connected with joint NHS-HE content activity and acted as a baseline on which future desk research and the development new models for content acquisition could be based.

The Report found that there was still a culture of separation between the NHS and HE, which made joint working more difficult than it need be. The Content Group drew up a generic presentation, which was used in a number of fora to disseminate the contents of the Report.¹⁰ The findings made uncomfortable reading, but it

is clear that there was a need for action to address the issues that the Report uncovered. The Report appeared in June 2003 and made a number of recommendations for practical ways

forward. Using the recommendations in the Report, the Content Group drew up an Action Plan consisting of the following areas of work:

Priority	Action Line
1	Framework for Service Level Agreements (SLAs) for Library Services between NHS and HEIs
2	Standards for Library Services for health and social care staff and learners – phase 1
3	NHS/HE common content: scoping study to map e-resources for health care licensed by the NHS and HE
4	Tracking of funding
5	Educational contracts
6	Joint Training
7	An information Literacy Curriculum for users of NHS and HE Library and Knowledge Services
8	User Needs Analysis for the UK NHS and NHS/Higher Education interface; a basis for management by NHS and Higher Education of the Knowledge Base of Healthcare
9	Authentication
10	JISC Health Special Interest Group
11	Develop a joint NHS/HE core collection of journals
12	Directory of NHS/HE contacts
13	NHS/HE statement on joint working

Table 1: Action Plan for Content Group

Activity Plan June 2003-Summer 2004

A number of lines of action proceeded based on this Action Plan. Invitations to Tender were drawn up for action lines 7 and 8 in the form of proposed projects, which the Group wished to put out to tender, with funding being requested from the JISC and the Library & Knowledge Development Network (LKDN).

Within the NHS, the Content Group saw an increasing emphasis on modernization and making better use of IT and Information Literacy programmes such as the National Programme for IT (NPfIT) and the National Knowledge Service. Within Higher Education, University Libraries were seen to be increasingly trying to work with the NHS to provide pathways for the common use of information resources purchased across the NHS and HE. In librarianship, professionals

were and are concerned to promote information literacy and the development of collections available in networked environments.

All such developments led the NHS-HE Content Group to invite the JISC and the NHS jointly to fund two Invitations to Tender, action lines 7 and 8 in the above Table, for *An Information Literacy Skills Pathway for Health, and a User Needs Analysis for the UK NHS and NHS/Higher Education Interface*. The work on drawing up these Invitations to Tender was led by John Van Loo (University of Sheffield), Anne Wales (NHS Scotland) and Trevor Lyttle (Queen's University Belfast and NHS Northern Ireland). These two potential projects were prioritised by the Content Group out of all the research paths suggested by the *Users First* Report. The Content Group believed that the two projects would:

- lead to better value for money
- identify better services for staff, students and users
- promote Information Literacy, since shared work between HE and the NHS would identify a common baseline
- support and improve patient care in the NHS
- Unhappily, funding for the two ITTs was not forthcoming and this effectively marked the end of the first phase of activity for the NHS-HE Content Group.

Structures

The failure of the two bids to fund the ITTs coincided with a review by SCOUNL (Society of College, National and University Libraries) of its ACOSC – Advisory Committee on Health Services. In 2004, this Committee was restructured as a high-level strategic body to interact with Government, the NHS and HE. Two Chairs have since led this body forward, with representation from HE and the NHS, Judith Palmer of Oxford University and Maggie Haines of King's College London.

The Forum's NHS-HE Content Group was given two places on this body and the representatives are Paul Ayris (HE) and Ben Toth (NHS). Additionally, the Content Group looked for alliances with truly cross-sectoral groups within the four home countries, to enable it to continue its work within the Forum. Surprisingly, there are very few formally-established cross-sectoral library groupings between HE and the NHS. Perhaps this is an indication of the separation which was highlighted in the Users First Report. One truly cross-sectoral body, of which the Content Group is a member, is the M25 Consortium's London Health Libraries grouping.¹¹ Maggie Haines is a member of this grouping, and Paul Ayris attends by invitation.

Scholarly Communication issues

The re-alignment of the work and outreach of the Content Group also coincided with the publication of Dr Ian Gibson's Parliamentary Report *Scientific Publications: Free for All?* in July 2004.¹² The objective of this influential

Report was to look at the current state of scholarly publishing and at drivers for change within the existing infrastructures. In particular, recommendation 9 was of particular importance:

We recommend that the Joint Information Systems Committee and the NHS work together to implement joint procurement procedures that reflect the close working patterns of NHS and the higher education sector and represent value for money for both. (Paragraph 36).

This recommendation was based on evidence supplied to the Parliamentary Committee from UCL, which advocated the practice of joint procurement between the NHS and HE sectors, to provide value for money for the public purse.

The JISC takes the joint procurement agenda forward 2004-05

The Parliamentary Report was very influential, particularly in Higher Education. The JISC approached Paul Ayris, as co-Chair of the NHS-HE Content Group, to see how the recommendation of Dr Gibson's Report could be taken forward. The result of this discussion was the reformulation of the Content Group as the current JISC NHS-HE Procurement Group, to take forward recommendations 3, 10 and 11 of the *Users First* Report, under the aegis of the Parliamentary Report on Scholarly Communication issues.

The reformulation of the Forum's Content Group was successful. Still part of the NHS-HE Forum, the Content Group was now allied to a national Parliamentary Report, to the cross-sectoral SCOUNL Health Strategy Group and to cross-sectoral Groups such as the M25 Consortium's London Health Libraries. The Content Group, under the new aegis of the JISC's NHS-HE Procurement Group, began in earnest to plan the joint procurement of two pieces of content between the NHS and HE – one piece of content from an Open Access publisher and one from a traditional commercial publisher. In the course of this work, a joint licence was developed by HE and NHS representatives to be used in the procurement activity. This forms one of the outputs of the Group in this new mode of working.

After extensive discussion, two pieces of content were identified for this procurement – membership of the PLoS (Public Library of Science)¹³ and content from one commercial publisher. In the summer of 2005, it became apparent that a cross-sectoral agreement for membership of PLoS between the JISC and NHS England, through the National Knowledge Service, and NHS Wales was possible and this is indeed going ahead. No agreement was possible over the joint procurement of the commercial content between the JISC and the NKS. Why was this so? A number of reasons and issues were identified:

- the journals did not meet NKS quality standards for the reporting of clinical trials (CONSORT, Quorum etc.)
- the range of eligible users excluded a number of groups supported by NKS
- the differential value of the journals to the NHS and the HE sectors was not included in the contract
- there was no provision for the FE sector to be included in the procurement
- JISC had not included the FE sector because the Learning and Skills Council no longer funds the JISC's content activities
- the risk of double payment had not been addressed
- NHS procurements above £100,000 generally require open competition
- the NKS was and is fully committed to the principle of joint procurement provided this approach brings value to the NHS.

The outcome was disappointing in one sense, but in another it did illustrate some of the difficulties in joint working between the NHS and HE sectors which were originally outlined in the *Users First* Report.

Future activity 2006

The NHS-HE Procurement Group of the NHS-HE Forum is determined to build on the learning it has gathered, and disseminated, since the formation of the Forum in 2001. The joint membership deal for PLoS shows what can be done when both NHS and HE sectors work together. Four further pieces of joint work are

planned for 2006, which will take further the research into new models and paradigms for the acquisition of content across the NHS/HE divide.

- the JISC and the National Knowledge Service will be working closely together to try and align procurement activity and cycles in NHS England and in the JISC
- the NHS-HE Procurement Group will work with the NHS in the four home countries to try once again to procure one piece of commercial content across the NHS and HE
- recommendation 3 of the *Users First* Report is being taken forward with funding being provided jointly by the LKDN and the JISC. At the time of writing (1 February 2006), an Invitation to Tender for a Mapping Study of Procurement Practices in the NHS and HE is being drawn up and will shortly be issued. The JISC NHS-HE Procurement Group will act as the Project Board for this piece of work
- through the NHS-HE Forum, Phil Leahy, Business Development Manager, Eduserv Athens: Access Management, is leading the Athens Account Linking Project in collaboration with the JISC NHS-HE Procurement Group. The purpose of this project is to allow NHS staff with joint NHS and HE status to have full access to all their e-resources from whatever login account they are using. A healthy number of HE and NHS bodies are keen to act as pilot sites in this project.

Conclusions

The history of the NHS-HE Forum and its work in content activity has highlighted a number of issues concerning cross-sectoral work across the NHS and HE. These are drawn from the research and learning acquired since the foundation of the Forum. They can be described as follows:

- there is universal agreement that progress on content issues can only proceed in tandem with work on connectivity; and that the NHS-HE Forum provides a unique opportunity to undertake this collaborative work

- procurement practices in the NHS and HE are so entrenched that it is difficult to align funding and procurement cycles to enable joint procurement activity to take place
- the challenge of separate NHS and HE cultures, in terms of audiences, stakeholders, funding sources and priorities poses both constraints and enormous opportunities for joined-up work and joined-up thinking
- both the NHS and HE partners in the Forum are committed to continue to work together over joint procurement to achieve a model which can be scaled up across the four home countries
- the work of the NHS-HE Forum is increasingly needing a systematic research-based approach, particularly for the identification of user requirements.

References

1. For the Forum's website, see <http://www.nhs-he.org.uk/>.
2. See <http://www.nhs-he.org.uk/guidance-notes.html>.
3. See <http://www.nhs-he.org.uk/case-studies.html>.
4. See www.ucl.ac.uk/Library/usersfirst.pdf.
5. See <http://www.n3.nhs.uk>.
6. See <http://www.ja.net>.
7. See <http://www.nhs-he.org.uk/gateway-wg.html>.
8. For CURL, see <http://www.curl.ac.uk/>.
9. See <http://www.ucl.ac.uk/Library/usersfirst.pdf>.
10. See <http://www.ucl.ac.uk/Library/usersfirstjul.ppt>.
11. See <http://www.m25lib.ac.uk/m25sec/business/health/healthhome.html>.
12. See <http://www.publications.parliament.uk/pa/cm200304/cmselect/cmsctech/399/39902.htm>.
13. See <http://www.plos.org/>.