The Use of E-resources.

A snapshot of e-resource use among Linking London LLN partner institutions

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Executive Summary

This report provides a snapshot overview of the use of e-resources among Linking London partners. E-resources are increasingly important to all aspects of education – from teaching and learning, through to the collection of student data, administration and marketing activities those institutions engage in. For this research e-resources are defined in the broadest sense and includes Virtual Learning Environments (VLEs), platforms, research software, and other e-resources (such as the use of Web 2.0 technologies, social networking technologies, mobile phones or Audio Visual technologies) as they relate to systems used to aid learning, teaching, administration or management.

The research used mixed methods including surveys, interviews, documentary analysis and case study development of areas of good practice. The research was conducted over three months, and we obtained over 40 responses via the survey and phone interviews. The findings were then triangulated with information from online (and other) sources such as institutional web pages, and prospectuses.

The findings confirm the importance of e-resources to partner institutions, as they are used daily by staff in all areas of their work. We also found that there are many areas of good practice and innovative use of these resources for administrative, marketing and teaching and learning purposes. There is also a considerable amount of research based on the use of e-resources, particularly from HEIs, and the HE sector has more widespread use of e-resources than FECs or specialist colleges.

Most institutions have either a formalised e-learning strategy, e-learning committee structure, or personnel who are employed as e-learning leaders; and all institutions offer staff training in this area. There are two areas of e-resource use that are particularly well developed; firstly the use of social networking sites (Facebook and Twitter) as well as the youtube website, and podcasting for a variety of purposes, e.g. for marketing and as a learning and teaching aid. The second is VLE development as all institutions have a VLE – and use either Blackboard or Moodle, with the majority using Moodle.

However, one of our main findings was that the use of e-resources within institutions is extremely varied, and often the most innovative uses and users are not supported centrally. Indeed, in many institutions there is a lack of communication between IT service departments and other personnel who are responsible for the pedagogical aspects of e-learning. Instead, innovative use and good practice often comes from individual academic or support staff who can be seen as “champions” for e-resources who introduce these initiatives. It is clear from the findings that e-resources and e-resource use is often not disseminated widely enough throughout individual institutions. Also, aside from the Bloomsbury Learning Environment there is little collaboration or sharing of resources between Linking London partner institutions – although there is a great deal of willingness among those surveyed to engage in collaboration.

Despite the fact that e-resource use is a high priority for institutions, there are two main problems that are holding back the wider utilisation of these technologies. Firstly, within institutions, differing skill-sets of personnel, and the lack of internal dissemination of e-resource use findings, means that the adoption of these resources, which might have already been trialled in one subject area, is slow to spread to other areas. As institutions have developed e-learning strategies and units, this may
well be overcome in the short term, and these personnel will be able to oversee the roll-out of new e-learning innovations, be able to help with the dissemination of findings, and help to train staff in the use of these technologies.

**Introduction/Background to the Research**

E-resources and e-learning are increasingly important to all aspects, and all levels of education. The variety of e-resources used by educational establishments from schools, through FE and HE are vast.

This report provides findings by Continuum the Centre for Widening Participation Policy Studies at the University of East London, from the Linking London commissioned research that seeks to illustrate the current landscape in this area among Linking London partners. The research has been conducted over three months, and has involved a stock take of the kinds of e-resources that are being used in the LLNs members. The methodology has necessarily used mixed methods, and included an online survey, one to one semi-structured interviews, phone interviews, and case study development of particularly good examples of where e-resource use has made a difference either to learning and teaching, administrative, managerial, or collaborative processes.

At the time of research there were 25 Linking London members. These are as follows:

<table>
<thead>
<tr>
<th>Institution</th>
<th>Location</th>
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<tbody>
<tr>
<td>Birkbeck, University of London</td>
<td>City and Islington College</td>
</tr>
<tr>
<td>City University</td>
<td>City of Westminster College</td>
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<tr>
<td>London Metropolitan University</td>
<td>Kensington and Chelsea College</td>
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<tr>
<td>London South Bank University’s School of Health</td>
<td>Lewisham College</td>
</tr>
<tr>
<td>Middlesex University</td>
<td>Newham Sixth Form College</td>
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<tr>
<td>The Open University, London</td>
<td>Southwark College</td>
</tr>
<tr>
<td>The School of Oriental and African Studies, University of London</td>
<td>College of Haringey, Enfield and North East London</td>
</tr>
<tr>
<td>University of East London</td>
<td>Hackney Community College</td>
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<tr>
<td>University of Westminster</td>
<td>Tower Hamlets College</td>
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<tr>
<td>Barking and Dagenham College</td>
<td>Westminster Kingsway College</td>
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<tr>
<td>Barnet College</td>
<td>City and Islington College</td>
</tr>
<tr>
<td>City Lit</td>
<td>Mary Ward Centre</td>
</tr>
<tr>
<td>Morley College</td>
<td>Working Men’s College</td>
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**Definition of E-resources**

For the research we are defining e-resources in the broadest sense, as agreed with Linking London. This includes Virtual Learning Environments (VLEs), platforms (such as XCRI), research software (such as NVivo, Endnote or SPSS), and other e-resources (such as the use of Web 2.0 technologies, social networking technologies or mobile phone technologies) as they relate to systems used to aid learning, teaching, administration or management.

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1 Due to the distance learning delivery method of the OU, this institution was not considered in the final analysis.
Headline Findings

- Innovations in this area are often led by individual “champions” within an institution, who often come from academia, rather than IT service departments.

- In many institutions there is a lack of communications between IT service departments and other personnel who are responsible for the pedagogical aspects of e-learning.

- Most institutions have a formalised e-learning strategy, e-learning committee structure, or personnel who are employed as e-learning leaders.

- The HE sector has more widespread use of e-resources than FECs or specialist colleges.

- All of those surveyed use e-resources daily.

- All partners use social networking sites (Facebook and Twitter) as well as the youtube website for a variety of purposes, e.g. for marketing and as a learning and teaching aid.

- Information about e-resources is badly disseminated throughout particular institutions.

- Aside from the Bloomsbury Learning Environment there is little collaboration or sharing of resources between member institutions – although there is a great deal of willingness among those surveyed to engage in collaboration.

- There is much good practice in this area, and a substantial amount of research occurring within institutions.

- There are three main areas of focus for these technologies within institutions – IT service departments, academic champions, and Library services.

- All institutions make use of social networking in some form to advertise and as a teaching and learning aid.

- All institutions have a VLE – and use either Blackboard or Moodle, with a majority using Moodle.

- All institutions provide some staff training in this area.
Methodology

The main information for the stock-take was intended to come from an online survey of current partners (of which there are currently 25). The survey was sent to the following departments of partner institutions (where applicable) to ensure full institutional coverage: IT departments, library and learning services, student services, distance learning departments, administration, and academic staff. We e-mailed over 150 colleagues with a survey request. A further three reminder e-mails were sent out, and we followed up with phone calls. Despite our best efforts to get colleagues to respond to the (short) online survey, we only had 19 responses in total, representing 8 of the 24 partner institutions under review. To counter this, brief phone interviews were conducted with IT service departments, or e-learning personnel at each institution. These phone interviews did not replicate the survey in its entirety, but sought to glean the most important information for the stock take of e-resources. A full list of these questions can be found at (Appendix A). Through the online survey, and the phone interviews we obtained over 40 responses. In conjunction with this, much information was trawled from online sources, institutional web pages, and prospectuses, which helped us to triangulate our findings.

Alongside the survey and documentary analysis, we also have been developing case studies of good practice, and innovative use of e-resources. These have been drawn from one to one semi-structured interviews, as well as documentary analysis.

Survey Results

As discussed in the section on methodology, we have received a very low response rate for the online survey, with only 19 responses at the time of writing. These 19 responses represent only 8 out of the 25 partner institutions. The institutions from which we have received some survey information are:

- Hackney Community College
- London Metropolitan University
- Morley College
- Birkbeck, University of London
- City of Westminster College
- Southwark College
- Middlesex University
- University of East London

Despite the poor response rate, there is still much useful information we can glean from the survey results. In particular, the open-ended questions that were included have yielded reliable information. Alongside this, results or information from other questions has been included, with pie charts outlining the responses, but these should be understood in the context of both the lack of respondents, and also in light of the fact we received a disproportionate amount of responses from one institution.
Use of E-resources
As can be seen from the following, the vast majority of respondents use e-resources on a day to day basis. The respondent who replied in the negative is a Director of Library Resources.

Daily use of e-resources

Types of E-resources Used
The following list of e-resources is the collation of responses in answer to the question: “What e-resources do you use?”

- VLE (Blackboard and Moodle)
- Student record system
- E-mail
- Powerpoint
- Visualiser
- Interactive white board
- MP3 recorder
- iPod
- Facebook
- Twitter
- Delta (student records database)
- Texting
- Emerald e-journals
- Elsevier e-journals
- E-books we subscribe to
- Web 2.0
- Office applications
- RFID (Radio Frequency Identification)
- Laptops
- AV equipment
- Exams tutor database
- CM Education
- Info Trac
- Issues Online
- KnowUK
- Britannica Online
- Sharepoint (for sharing documents)
- Self and colleague-created interactive resources
- NLN learning materials
- Web editing of Library website using Plone
- Various subject specific databases
- Learning Objects
- Access database managing our digitised readings
- Linked In
- Athens
- JISC online resources
- BBC News
Perhaps the most surprising response was: “As a senior manager, very few”.

Alongside the above list, the following e-resources were cited as being used by colleagues at the respondents’ institutions.

- SPSS
- Blogs
- Docuwiki
- Screen readers (JAWS)
- Interactive response systems (TurningPoint)
- Virtual hospital
- InVue
- Lulu
- Web Mark Entry
- Wikis e.g. Virtual Schools
- Computer controlled lab equipment
- Specialist disability software
- Skype
- City Mutual's Health and Social Care database
- MarketLine
- EconoMAX digital magazine
- Dartfish
- Teacher’s TV
- Subject Learning Coach resources
- Excellence Gateway
- Ferl
- Xerte
- Windows 2007
- Student Information Systems
- Content Management System to track student queries
- Digitisation of readings for VLE
- Library Management System - Horizon
- Everything in ELESIG
- Athens
- Grove Music Online
- British Library Sound Archive
- Student Record system – SITS
- VLE – Blackboard
- Online databases and journals
- Reusable Learning Objects
- Social networking tools
- Referencing tools
- EBSCO
- Film and Sound Online
- Info Trac
- KnowUK
- Gale Virtual Reference Library
- Zetoc

It is clear from these responses that the most used e-resources fall into a few categories, the largest of which includes online resources such as e-journals, and subject specific online repositories (such as Film and Sound online) - in fact 30% of the answers given fall into this category. The next largest category of e-resources would be grouped under social networking including the use of twitter, blogs and sites such as Facebook. Nearly 9% of the responses fall into this category. The next largest categories with just over 6% of responses are student records systems, specialist databases, and AV software and equipment. It is clear also, that from these responses there is some use of highly specialised e-resources in partner institutions, such as interactive virtual hospitals, computer controlled lab equipment, and Lulu (online e-book publishing).

**Student Records**
The survey asked specifically which student record management software was used in the respondent’s institution, the results are as follows:
This finding is interesting. Although we have had responses from only 8 institutions, there are clearly more than 8 student record management software systems named here. One explanation is that many of these are an institutional version of SITS (e.g. Delta is a version of SITS).

Social Networking
All institutions have a strong presence on social networking sites such as Facebook, and twitter. Most also have channels, or at least audio-visual content on the YouTube website. The main thrust of the use of social networking sites is for advertising and marketing purposes. All institutional web pages, for example, allow the user to follow updates on a wide variety of RSS newsfeed applications and pages, as well as social networking sites such as Myspace and Facebook. For a full stock take of the use of these resources at partner institutions, please see Appendix C.

Use of Social Networking Tools for Learning and Teaching
Not only are social networking technologies being used by partner institutions for marketing purposes, there is innovative and pioneering use of these technologies for learning and teaching. However, this work is conducted by a minority of academics and tutors within the institutions, is often not supported by centralised IT service departments, and is not well disseminated between subject areas or schools. These e-resources are more often that not not being used by highly IT literate staff who could be seen as e-resource “champions” within their institutions.

When asked the question: “Do any of your staff use social networking resources for learning and teaching?” 20% said they were not sure, and 79% said that they did.
Although most institutions use these e-resources, the types of social networking tools used in partner institutions vary. For example, there are many Facebook pages for specific subjects or tutorial groups, which are used in conjunction with VLEs and wikis as informing learning sites and for the dissemination of course related information. There are also a number of more interactive social networking tools being used for learning and teaching purposes. For example, in Second Life, the Internet’s largest 3D user-created virtual world, only two Linking London partner institutions have a presence – UEL and Middlesex. Again, the reasons for the institutional presences here vary from marketing, and the delivery of IAG to prospective students, but some of the more innovative use of Second Life is for learning and teaching. For example, UEL has provided virtual laboratories for training health and biology students in laboratory methods before they take classroom lab-based assessments.

**Future use of E-resources**

![Graph showing the percentage of respondents who plan to use more e-resources in the future.](image)

It is unsurprising that the majority of respondents confirmed that there were plans for future use of e-resources. This was validated by the interviews as many institutions are already expanding, updating, or including new e-resources in their institutions.

When asked “What current manual operations could be automated?” the responses were:

- Student registration
- Staff rosters for service desks
- Databases
- PC Booking
- Print Management

**Support of E-resources**

Through the interviews we found that many innovations around the use of e-resources came from particular individuals in a variety of academic schools, who had an interest in specific applications of
e-resources to learning and teaching. Much of this work is done without the support of the centralised IT service departments. However, we also found that once some of these technologies had been “piloted” in this way, IT departments will then accommodate the use of these e-resources. We found this to be the case with podcasting and video conferencing in one HEI. It was only when academic staff had initiated the use of these technologies, and had used them for learning and teaching or for research purposes (sometimes for years), that IT departments began to support them.

The following list was in response to the survey question: “What e-resources are supported by the IT department?”

- Blackboard
- Student record system
- E-mail
- Most of the ones previously mentioned
- Library supports all e-resources
- Centrally supplied software e.g. Office
- Almost all resources are supported by the IT department
- General technical support from IT department on all e-resources & IT problems
- Too many to list
- MS Office
- SPSS
- Inspiration
- Other access disabilities software
- IT Suites, open access PCs, standard software set: MS Office, Adobe Creative Suite
- Specialist software: Sibelius, Earmaster
- Accessibility software: Inspiration, Supernova, JAWS
- All E-Resources are now managed by the Learning Resources Service

Positive and Negative Outcomes From the use of E-resources

The survey asked the open ended question: “What have been positive outcomes from the use of e-resources?” The responses were as follows:

- Greater and quicker access for students to materials to support their learning
- More interaction in face to face and blended teaching
- I can't think of anything specifically as using VLEs and e-mail are pretty much industry standard.
- Consistent delivery between different members of the team due to shared e-resources e.g. power points.
- Much more effective delivery of lectures using online film clips etc
- Students like podcasts
- Ease of use and improved communication with students
- Ease of use and increased ways of communication with students
- Satisfaction because it provides equitable access to off-campus work based and off-shore learners
- Extended access, management data, simplified services
- The information obtained was of good quality, peer reviewed and reliable
- Improved student success.
- Uptake of LRC workshop sessions based on e-Resources
• More student participation, accessing materials when off sick etc
• Allows 24/7 access to resources, not limited to when the physical library space is open
• Can be easily customised to meet differing needs of users
• Accessibility to all (including disabled students), and downloading individually versus print runs
• Higher attendance and retention reported by Languages Manager
• Enhancing student experience
• Accessibility
• Access to resources
• Availability at anytime through the VLE

It is clear that the majority of these answers are around the improvements that these resources provide students – such as increased accessibility to resources, and links to higher attendance and engagement. The second largest category here is the simplification of administrative tasks.

However there were also comments expressed that showed the negative side to e-resources:

• Haven’t got complete single sign on so users need different usernames/passwords to access externally hosted blogs etc
• Perception by academics that if you put the materials online the students won’t attend the classes
• When the system doesn’t work you can be left high and dry! No lecture notes and no means to deliver your content
• Access to VLE; breakdown of systems during teaching sessions
• Reduced face to face contact with students
• Fear from staff around new technologies
• Concern around loss of face to face contact with students
• Some licensing restrictions
• Plethora of passwords with insufficiently developed portals
• Network failures can ruin the excitement of using E-resources
• Teacher time
• Can be a steep learning curve
• Raises expectations that sometimes cannot be met
• Lack of skills, GRRRRRRRRRRR and teeth gnashing when something simple turns out not to be so simple
• Increased workload for part-time tutors
• More support needed from already overstretched IT department
• Lack of audit trail
• Need to train staff to use them, change of culture in teaching methodology, exclusion of IT illiterate learners and resistance from IT-Phobic staff

Here, the negatives mainly revolve around the possibility of reduced time with students, and failing systems.

**E-resource Training**

All institutions provide staff training on a wide range of e-resources from Audio Visual training, research software, student records systems and the use of social networking for learning and teaching. However, most of this training is not compulsory, and as a result individuals’ skill-sets within an institution can vary. The charts below show the survey responses for the questions around e-resource training.
Have you personally received training in the use of any e-resources, for example, a particular software package?

Here, 75% of those surveyed have received training on the use of e-resources, and below, it is clear that while the largest group of respondents do not believe they need further training, a significant minority of 38% feel they do.

Do you feel you need more training for these types of resources?

AV training for staff
Through the interviews we found that all partner institutions provide AV training for staff, although it was noted in one interview that very few staff utilise this facility.
Collaboration

Does your institution collaborate with, or share e-resources with another institution?

- Yes: 27%
- No: 40%
- Don’t know: 33%

In response to the question, “what is the nature of this collaboration?” the responses were as follows:

- L7 consortium; JISC/RSC collaboration
- Bloomsbury consortium of 5 colleges sharing the VLE Blackboard
- Consortium (BLE)
- Open source RLOs (Reusable Learning Objects)

While existing collaboration between Linking London partners is small, and mostly involves those institutions involved with the Bloomsbury Learning Environment VLE, there is the desire to collaborate more fully. As seen in the chart below, 60% of those surveyed would welcome this move, and no respondent answered that they would not want to collaborate more fully. When asked what areas this collaboration should take place in the responses were:

- Learning materials
- Subject to licensing
- Shared invoicing
- Any way that works
- To standardise the teaching across the sector, to avoid repetition of work and in return to improve the quality of teaching
Would you be interested in collaborating and sharing e-resources with other institutions?

Accessible WiFi
The question: “Do you have accessible WiFi on campus?” was a question in the online survey, and in the phone interviews. Interestingly there was a discrepancy in answers between two FEC colleges between these two surveying methods. These colleges replied in the online survey that they did not have WiFi on campus; however subsequent phone interviews revealed that they did. Again, this reinforces the finding that the knowledge about e-resources within institutions is not evenly spread, with some colleagues being particularly knowledgeable about what services are offered, while others are not. With the online survey and phone based interviews combined, we can see in the chart below that a significant majority of partner institutions offer WiFi to both staff and students.

VLE
Virtual Learning Environments are used in all partner colleges. There are two VLEs in use – Moodle and Blackboard. As can be seen below, Moodle is by far the most popular VLE.
There is a split here between FECs and HEIs however, with only two of the eight HEIs using Moodle, the remaining six use Blackboard. This can be explained by the use of the shared Bloomsbury Learning Environment VLE, which runs on the Blackboard system. In interviews it was suggested that the popularity of Moodle was that it is open-source, and free, unlike Blackboard.

**XCRI**

The XCRI course advertising profile was developed via a JISC funded project between partner organisations: the University of Bolton, Manchester Metropolitan University, and KaiNao Ltd. The main thrust of this project was to develop an XML specification for the course advertising profile (XCRI-CAP). The intention was to develop and promote a national standard for online course materials that enable interoperability between course materials of different institutions, and between course materials and student records within an institution. The XCRI-CAP specification is compliant with the EU standards in this area, and has the potential to streamline the way in which course information is presented online. The benefits of adopting this specification at an institution mean a lower administration burden and compatibility between course advertising and student data. For students, the benefits are a clearer compatibility in course materials between institutions, resulting in a clearer provision of IAG so that they can make better informed choices.

Initial findings for this case study indicate that the XCRI-CAP specification is not used at any Linking London partner institution, aside from Middlesex, which was involved in its piloting and development. London Metropolitan University has at least trialled the system, however personnel responsible for this subsequently left the institution and the trial ended without XCRI being implemented by the University.

Alongside this, the knowledge in partner institutions about this specification is very low. The following chart is from the online survey, with 14% answering definitively that they did not know about this standard, with the majority not knowing if their institution uses this standard or not.
While the online survey only represents eight institutions, subsequent phone interviews also revealed that the XCRI specification was not well known in London partner institutions. While some of this could be explained by the types of colleagues interviewed – who may not be involved in the course advertising or IT area (some were from academia, some from Learning Services, and others from IT service departments), this lack of knowledge about the specification is a concern.

It is timely then, that Linking London are hosting the XCRI awareness raising event to enable partner institutions to adopt the specification, which has the potential to streamline the online information institutions provide. Although the specification is little known in London, many institutions in West Yorkshire have adopted the XCRI-CAP specification. This has largely been due to the influence of the WYLLN (West Yorkshire Life Long Learning Network), which worked with institutions to look at the ways in which XCRI could benefit both institutions and prospective learners. As London partner institutions have expressed a desire for an increased level of collaboration, this would be one area where the benefits of such collaboration would be felt.

E-portfolios
The response to the question: “Do your students use e-portfolios?” can be seen in the chart below. It is clear that a majority of institutions use e-portfolios, however, from the interviews it was noted that while an institution might use these in one subject area, they are not necessarily used across the board. One interviewee from an HEI stated in response to this question: “Yes, and no. They are used in the IT department, and maybe in Medicine, but they are not common institution wide.”
Computer Based Assessment
All institutions use some form of computer based assessment of students. Again, from the interviews however, this follows a similar pattern to other e-resources whereby computer based assessments might be well used within one subject area, but are not embedded practice in an institution wide context.

Plagiarism Software
The responses to the question: “Do you use plagiarism software?” can be seen in the chart below. Most institutions use the programme Turnitin, which can be embedded in the Moddle VLE. Other responses from the phone interviews indicated that their staff did not use formalised plagiarism software, but used Google to check for plagiarism in students’ work.
E-learning Strategy
While few institutions have a formalised e-learning strategy, many have an e-learning section in their teaching and learning strategy, and a majority of institutions have personnel dedicated to e-learning. However, the way this is organised within an institution varies. For example, some institutions have an e-learning specialist based within schools or subject areas. Some have a centralised e-learning unit, for others these roles sit under Library or Learning resource departments. There was no discernable HEI/FEC split in the way e-learning was organised.

Research
The following are responses to the question: “Does your institution conduct research around e-resource use?”

• We were part of the JISC benchmarking and pathfinder projects
• I conducted research but don’t know if anyone else has
• I don’t know
• Don’t know
• Not sure
• Yes
• Yes
• Not sure
• I doubt it
• Participation on Moodle monitored
• Not really as such - we do undertake an annual user satisfaction survey via the website
• However this year a separate survey on use of the Library website prior to redesigning it was carried out
• Yes but I can’t name [it]
• No, but this is an area I would like to develop

Research in this area is actually more developed than these answers imply. Most institutions monitor internally use of e-resources such as interactive whiteboards, or VLE participation. This kind of internal monitoring is widespread, perhaps due to the ease of recording e-resource use. In addition to this, many institutions conduct surveys around IT and e-resources. Alongside these internal monitoring activities, many partner institutions’ personnel have published on their use of e-resources, and disseminate their findings nationally, and internationally.

Case studies
E-Collaboration: Bloomsbury Learning Environment

Background
Virtual Learning Environments (VLEs) and their earlier progenitors are no longer exclusively used to support distance learners – they are now an integral part of learning and teaching – supporting students through blended learning. The Bloomsbury Learning Environment (BLE) is a shared platform developed by and deployed across all six of the University of London Bloomsbury institutions. Established in 2003 by the three founding partner institutions: London School of Hygiene and Tropical Medicine (LSHTM), the Royal Veterinary College (RVC) and the School of Oriental and African Studies (SOAS) the partnership now includes the School of Pharmacy (SPharm) Institute of Education (IoE) and Birkbeck College (BBK).
The partner institutions are all recognised leaders in their respective disciplines in the UK and internationally. They serve a diverse population of learners including: campus based undergraduates and postgraduates, part-time students, work based /work placement learners and distance learning students based in the UK and overseas. The institutions collectively have over 20,000 undergraduate and 14,500 postgraduate students. (HESA 2008/9)

The BLE is the first example of a cross-institutional implementation of the Blackboard Academic Suite in the United Kingdom. The remit of the BLE has developed from initially sharing a common Blackboard Academic Suite licence and server to sharing expertise, knowledge and technology between partners on both a technical and pedagogical level.

**Blended learning**
The BLE enables academic staff to upload learning resources in a variety of forms ranging from the traditional lecture notes and PowerPoint presentations to the less traditional, but increasingly popular and common podcasts (recorded audio) and videos of lectures and practical sessions, which learners can access remotely at a time and place convenient to them.

Uploading lecture notes and presentations in advance enables the learners to familiarise themselves with the general content and vocabulary of the lecture or presentation. This is particularly important for learners with dyslexia; learners with physical or other special learning difficulties (SpLD) can also make adjustments to materials by using a screen reader or changing font sizes.

Learners are also able to submit electronic copies of their assignments through the BLE, saving time and effort for them as well as reducing the administrative burden on support staff. An added advantage of electronic submission is the ability to use Turnitin software for originality checking and plagiarism prevention. Using Turnitin provides an opportunity for academic staff to engage students in the process of academic writing and address academic integrity. The BLE can also be used by staff and learners to track their performance and progress.

**Student led learning**
The BLE also enables learners the opportunity to communicate, collaborate and create content through a variety of tools including: discussion boards, wikis and blogs.

**Shared services with an individual identity**
Each partner college has their own individual BLE interface whilst benefiting from a single licence and shared services. This collaborative approach brings a number of cost efficiencies not only in terms of the licence fee but also in terms of hosting. As the service has grown and developed the BLE is hosted on remote external servers providing added resilience and reducing dependency on individual partners.

**Communities of practice**
The BLE has fostered the development of communities of practice, not just in terms of technical support and development through the BLE Technology Group, but also in terms of pedagogy through the BLE Pedagogy Group. These groups come together in jointly organised events to showcase their work. The appointment of a BLE Service Manager is evidence of the commitment of the partners to the BLE.

**Success and recognition**
The success of the BLE is due to recognising and addressing the interest and needs of the four key stakeholders: academic staff, developers and technical staff, researcher staff and learners. A committed team deliver technological solutions that are: agile, accessible and inclusive.
The BLE has been recognised by both industry (Blackboard Catalyst Award for Community Collaboration in 2009) and more recently by the academic community (Commended at the 2010 ALT Learning Technologist of the Year Awards).

Mobile Phone texting: Student Services and Learning and Teaching, UEL

The use of utilising text messaging within Higher Education contexts is not new. There has been some research conducted on the various ways in which this kind of E-resource has been used in particular organisations, such as an aid for retention (Riorddan and Traxler, 2005), as a tool to facilitate transition to HE, and as a tool for learning and teaching (Garner et al, 2002; Griffiths and James, 2005; Markett et al, 2006). While this research does occur within the context of the UK, in terms of Linking London partners, the best practice case of the use of these technologies as a tool for retention, administration and learning and teaching is the way in which these technologies are used at the University of East London (UEL).

UEL have been using these technologies on an institution wide scale since 2003, although there were earlier instances of individual academic and administrative staff communication with students via text messaging before this. UEL uses the web based txtools, developed by Edutxt. There is one point of contact for the service, which currently sits under Student Services as this was the main area of use. However, as the system has become more popular, a second point of contact has been establishes within the IT service department. Training staff members on how to use the service is vital, as improper use, or over use of the system could be potentially too intrusive to students, and lessen the effectiveness of the system. As a result a communications protocol for the use of text messages has been established.

UEL uses this technology for:

- Student information
- As a tool for student retention
- As a tool for teaching and learning in the department for Health and Bioscience

For student information, the service is used for whole subject areas, as well as for smaller groups such as tutorial groups. Academics can text their students important information such as changes to the timetable or rooms, and exam and assessment details.

In terms of student retention, there has been great success in using this service. UEL first used this on the “laters” campaign aimed at students who enrolled late. This was promoted across the campus with posters and flyers, and on the webpage and via e-mail. Students who enrolled late texted the word “late” to the free text number and received a web link to a FAQ website with instructions on late enrolments.

As a tool for learning and teaching, text messaging has been adopted, in particular in the school of Health and Bioscience. The rationale behind this was that it was felt that some first year students, in large lectures, were unwilling to ask questions in front of their peers. During the lecture, a text number is given out and the students are able to text in questions that the lecturer receives on a laptop (that is not displayed to the groups) and then the lecturer can incorporate the answers to these questions in the rest of the lecture. The students were surveyed about the use of this technology, and approximately 70% said they liked the service, although the level of interaction
within the lectures has not increased. Other findings include that students whose first language is not English, found these technologies particularly useful.

**Blended delivery Earth Sciences, Birkbeck**

In 2003 Earth Science courses at Birkbeck began to be run as blended learning courses, with two half course units being delivered in this way. Due to the success of this, by the 2005/6 academic year, full degree courses in Earth Sciences were being delivered in this way. The decision behind moving to a blended delivery system was due to the poor levels of recruitment of students on certain courses.

In this type of delivery there are two types of students – face to face students and distance students, although here are no differences between them in terms of fee structure or administration internally. This enables students to essentially switch between the two categories – for example if a face to face student cannot make the evening’s lecture – they become a distance learner for that time and access the online materials like a distance learner would. Similarly, those enrolled as distance learners can sit in on lectures, and it has been noted than even overseas distance learners will occasionally come to London for a week and attend lectures on campus, which helps them identify as Birkbeck students. Although initially the university was hesitant to enable this type of switching between distance and face to face, because of administrative imperatives, the success of this type of delivery means that it is now supported. Indeed, allowing students this flexibility has been seen as one of the successes of this style of delivery, and has resulted in significantly reduced dropout rates in the blended delivery courses.

The student profile of these courses was a surprise to those involved in running them; as it was soon discovered that around 50% of those who enrolled as distance learners were actually living in the greater London area. This style of provision tapped in to a new student cohort – those who lived locally, but who could not commit the time spent (and travel time) to be on campus three evenings a week, for three hours a session. This flexibility is clearly desirable to students and student enrolments in these courses have trebled in the last three years.

The kinds of online materials provided largely mimic the face to face delivery, and actually do not rely on some of the more innovative E-resources that are being pioneered at partner institutions. The lectures that are delivered are filmed and then uploaded for the students to view. Lecture notes to the lecture are also provided as a .pdf file, with the full text of the lecture including diagrams etc. As well as the hour long lectures, there are two hour long practical sessions for both face to face and distance students. For the distance students, the practical exercise is provided as a complete .pdf document with everything that they need (e.g. graph paper). The students print the practical and complete the work in their own handwriting – then submit to the course tutor. About half students re-scan this document and submit electronically (getting a .pdf document receipt) and the other half mail in their work. While seemingly “low tech” the fact that students write their work out manually has two advantages: firstly it is faster, and secondly, tutors can compare handwriting to ensure that the student is doing their own work.

The courses do not use many other e-resources, such as social networking, although there is a notice board on the VLE. One lecturer uses audio feedback that is e-mailed to students, but the use of these kinds of technologies is up to the individual lecturers and tutors.
Overall, delivering the courses in this way has been vastly positive. However it must be noted that this relied on the IT skills of academic staff themselves, and the technologies used in this model were not supported by the IT service department. Due to the success of this, staff who are involved in this department offer training to staff in other subject areas who might be interested in moving to this style of delivery.

The move to blended delivery of degree courses in Earth Sciences was monitored and the research was published. The research compared assessment data, student numbers, student retention and final results of face to face and distance learners, against similar data from years before the distance delivery was offered. Findings show that distance learners score as well, if not better than face to face learners, student numbers have increased, student retention and attendance have been maintained, and examination results have been maintained, and in some cases improved.

Conclusion

The use of e-resources is certainly commonplace in all areas of partner institutions – from communications and administration, marketing, and more innovative uses of these technologies for learning and teaching. While innovations in this area may be led by individual “champions” who introduce a new resource, or a new utilisation of an existing resource, it is clear that the use of e-resources in partner institutions has become increasingly important over the past years. This importance, in particular to learning and teaching outcomes, is reflected in the way in which institutions have developed e-learning strategies, embedded e-learning imperatives into other strategies, and have developed centralised (or dispersed) e-learning units which oversee the use of these resources.

Although e-resource use is a high priority for institutions, there are two main problems that are holding back the wider utilisation of these technologies. Firstly, within institutions uneven skill-sets of personnel, and a lack of internal dissemination of e-resource use findings, means that the adoption of these resources, which might have already been trialled in one subject area, is slow to spread to other areas. As institutions have moved towards e-learning strategies and units, this may well be overcome in the short term, and these units will be able to oversee the roll-out of new e-learning innovations and be able to help with the dissemination of findings, and training staff in the use of these technologies. Secondly, aside from the BLE, there is very little collaboration between institutions. This means that there is potential here to optimise e-resource use, for example by encouraging partner institutions to share the financial burden of these technologies, or by sharing good practice in this area. The research found that there is a high level of willingness amongst partner institutions to collaborate more in this way.

Perhaps the most encouraging finding is that there is a great deal of innovative use of these resources already occurring in both HE and FE environments. While the dissemination of this, and

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the sharing of good practice might not be as advanced as it could be, it is clear that for many individual academic and teaching staff, that innovations such as e-portfolios, computer based assessment, web 2.0 and social networking technologies are all used as an aid to learning and teaching on a day to day basis. To maximise the potential of e-resources in partner institutions it is clear that the way forward would be to assist those colleagues who are already “champions” in this area to disseminate their good practice, and to help them to up-skill other colleagues to embed these resources in a more even way within individual institutions.
Appendix A: Phone interview questions

- Do you have an on-campus wireless network?
- Do you have a VLE?
- What VLE do you use?
- Do your students get an ATHENS login or similar with their library access?
- Do you have a formalised e-learning strategy?
- Do you have an e-learning group? Where is this placed within the institution?
- Do you use computer based assessments?
- Do you use plagiarism software?
- Do you use social networking tools in learning and teaching? Do you provide training for staff on this?
- Do your students use e-portfolios?
- Do your staff get IT training, and more specifically, AV training?
Appendix B: Survey Questionnaire

E-Resources used by Linking London members

Thank you for participating in this survey about the e-resources used by your institution. For the survey, we have chosen to look at the widest meaning of e-resources - that is any computer or electronic based technology that is used by your institution to help with learning, teaching, student support or administration. For example this would include student management software, VLEs, specialist software for disabilities, research software such as SPSS, and the use of web 2.0 technologies and online social networking sites.

1. What is your job title?

2. What institution do you work for?

3. Do you use e-resources in your day to day activity?
   - Yes
   - No
   - Not sure

4. What e-resources do you use regularly in your day to day activity? Please list these below.
5. What other e-resources that you know of are used in your institution?

6. Are there any plans to use more e-resources in the future?

☐ Yes
☐ No
☐ Don’t know

If yes, what e-resources are being planned for?

7. What have been some positive outcomes from using e-resources?
8. What have been some negative outcomes from using e-resources?

9. Have you personally received training in the use of any e-resources, for example, a particular software package?
   - Yes
   - No
   - Don’t Know

If yes, what were you trained on?

10. Do you feel you need more training for these types of resources?
    - Do you feel you need more training for these types of resources? Yes
    - No
    - Don’t know

11. Has your institution conducted any research on how e-resources are used, either by staff or students? Please explain below.
12. What e-resources are supported by the IT department? Please list.

13. How many staff PCs are there at your institution? (approximately)

14. How many student PCs are there at your institution? (approximately)

15. Do your staff get institutional smart phones?
   - Yes
   - No
   - Don't know

16. Does your institution use mobile phone technologies for teaching, learning, or for student services?
17. Do you have accessible WiFi on campus?
- Yes
- No
- Don’t know

If yes, what is this used for?

18. Does your institution hold any digital archives?
- Yes
- No
- Don’t know

19. What software does your institution use for the administration and management of student records?

20. Does your institution collaborate with, or share e-resources with another institution?
- Yes
If yes, what is the nature of this?

21. Would you be interested in collaborating and sharing e-resources with other institutions?

- Yes
- No
- Don't know
22. Please indicate your level of engagement with the following:

<table>
<thead>
<tr>
<th>Activity</th>
<th>Use daily</th>
<th>Use weekly</th>
<th>Use rarely</th>
<th>Do not use</th>
<th>Are considering using in the future</th>
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<td>Online chat</td>
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<td>Computer based assessment</td>
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<td>Online submission of coursework</td>
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<td>Anti-plagiarism software</td>
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<td>Online journals</td>
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<td>Rich media presentations</td>
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<td>Video conferencing</td>
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<td>SMS texting</td>
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<td></td>
<td>Use daily</td>
<td>Use weekly</td>
<td>Use rarely</td>
<td>Do not use</td>
<td>Are considering using in the future</td>
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<tr>
<td>Blogs</td>
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<td>Wikis</td>
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<td>VLEs</td>
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<td>Games</td>
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<td>Student record systems</td>
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<tr>
<td>Research software (SPSS, bibliographic software etc)</td>
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<tr>
<td>Specialist disability software</td>
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<td>Grant finding software</td>
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</table>
23. Are there any activities that you currently perform manually, that you think technological solutions could help with? If so, please outline these below.

24. Does your institution use XCRI (the course advertising profile) to advertise your courses?

☐ Yes

☐ No

☐ Don’t know

25. Which of the following do you use regularly outside of work?

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<th>Yes</th>
<th>No</th>
<th>Don't know</th>
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<td>Don't know</td>
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## Appendix C: Social Networking Use

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<td>N</td>
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</tbody>
</table>
Appendix D: Bibliography


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http://www.city.ac.uk/
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http://www.lsbu.ac.uk/
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http://www.qmul.ac.uk/
http://www.soas.ac.uk/
http://www.uel.ac.uk/
http://www.westminster.ac.uk/
http://www.barkingcollege.ac.uk/
http://www.barnet.ac.uk/
http://www.candi.ac.uk/
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