



Special Issue: C&IT for Disabilities

Supporting disabled students – a progress report

This special issue of *BITS* focuses on new technological developments that are becoming available to provide additional support for disabled students, who make up a growing number of our students: it is important for all of us to remember, for example, that a first year class of 250 students can expect on average to have about 16 students who are disabled.

The Disability Discrimination Act requires the University to look at all our activities to ensure that, as far as possible, we create an environment in which all students, members of staff and, where relevant, members of the general public are able to access our teaching and other services on an equal basis, regardless of disability. In some areas this means that all our activities have as a matter of course to be set up in ways that will be accessible to all: for example, to allow visually-impaired students (and potential students) access to our principal public websites.

We have decided that the right approach is to seek to conduct all our business in ways that are equally accessible to all, regardless of disability. For example:

- Encouraging all staff to make available teaching material on websites in accessible formats is likely to benefit all students taking the course.
- Encouraging lecturers routinely to use the mobile microphones available in large lecture theatres, whether or not there are formally disabled students present will equally help anyone who is experiencing temporary loss of hearing (for example from flying or an infection).
- Making available as a matter of course a small area in a computing lab with flat screens which can of priority be used by students with epilepsy, but which can be used by all students at other times, costs relatively little more than fitting standard equipment throughout and may be of assistance to a much wider range of students at some times.

Some needs are much more specialised, however, and, as you will see in what follows, a wide range of support is now available. The key thing here is that *all* staff should seek to become aware of what is available and of how they can encourage students who need to take advantage of it, and to be able to respond rapidly to a need if it arises: everyone should know how they would convert their teaching material to Braille, for example, or what advice to give to a student who may be having problems because he or she is dyslexic.

I urge everyone to read carefully through this issue of *BITS*. The authors will be delighted to provide more information, and to help you or your students at any time.

Michael Anderson (Senior Vice Principal)

Disability Discrimination Act (DDA) Part IV

What is it?

Many of you will have seen the ninth issue of the Learning Technology Supplement produced by MALTS, which was distributed with October 2002's *BITS*. Also, by now no doubt most staff will have heard of the Disability Discrimination Act (DDA), which from September 2002 was extended to cover education. The legislation covers all students, staff and visitors to the University, and makes it unlawful to discriminate against any disabled person. This can either be through treating them less favourably than a non-disabled person, or by failing to make reasonable adjustment for them on grounds

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Helen Hayes, the University's new Vice Principal; see page 8.

DDA Part IV

(Continued from Page 1)

of their disability. In addition, the Act makes it clear that institutions have an anticipatory duty to provide as barrier-free an environment as possible, even where there may currently be no disabled people.

This year nearly 1,200 students at Edinburgh declared a disability. The Disability Office works directly with students, and indirectly with academic and other staff to ensure that disabled students have the opportunity to achieve their highest potential.

As part of our work we have a Disability Committee, with a number of subgroups, including the Technology Subcommittee. Its remit is to:

- Raise awareness across the University of issues relating to accessible technology, and disseminate good practice.

- Keep up-to-date with new technological developments available for disabled students.
- Ensure that University facilities include a range of specialist equipment for use by disabled students.

The Committee is convened by Rosie Addis on behalf of the Disability Office, and includes representatives from EUCS, MIS, MALTS, TLA, the LRC, OLL and the Web Editing Team. All the members have experience and expertise in the area of adaptive technology and of creating barrier-free environments. However, we always welcome comment and offers of help from around the University, particularly from staff and students with personal experience of using adaptive technology. Please contact me (email Rosie.Addis@ed.ac.uk).

Rosie Addis (Disability Office)

Resources for disabled staff and students in the Learning and Resource Centre

Innovations in information technology are making computers increasingly accessible. The Learning and Resource Centre (LRC) in the Main Library in George Square provides a representative range of these assistive and adaptive technologies. Our staff can provide advice and introductory training in the use of the software applications and equipment. We also provide services and information relating to adaptive technologies.

Over the Summer months we will be upgrading and enhancing our current pool of disability resources with new computers and software. In common with the open-access labs we will be switching over to Windows XP, which has in-built features such as a screen reader and screen magnification. Additionally all our staff will be embarking on a programme of training to equip them with the knowledge they will need to provide support for the new kit.

The following summary of resources for disabled users in the LRC is intended purely as a description of what we have, and should not be regarded as a recommendation of specific equipment or software. For advice of this nature you should contact the Disability Office if you are a student, or Human Resources if you are a member of staff.

Resources for dyslexic users

There are many students and staff within the University who have dyslexia. Computer software can help dyslexic users in various ways. Some people find it easier to organize ideas graphically (mind mapping), before embarking on the task of writing a complex document. *Inspiration* is a tool which does precisely this. Spell-checking, word prediction and screen reading with synthetic voice output are all features which can aid those with reading and writing difficulties, and all are contained in the software package *Read and Write* (described

in detail elsewhere in this issue).

Kurzweil 3000 is a product which combines the features of optical character recognition (text scanning) with synthetic voice output, to enable a user to scan a paper source document, store the content in the computer, then have it read aloud. *IBM Home Page Reader* is a screen reader which has been specifically designed to read Web pages. Some people with dyslexia are sensitive to certain combinations of text and background colour: *Kurzweil 3000* and *IBM Home Page Reader* both allow the user to set these according to preference. Voice recognition software packages, such as *Via Voice* or *Dragon Naturally Speaking*, translate human speech into digital text, and this can help dyslexic users when it comes to word processing documents.



Resources for blind and visually impaired users

The software packages, which include screen readers such as *Kurzweil 3000* and *Home Page Reader*, can also be useful for visually impaired users. In addition to these, there are two screen readers specifically designed for blind or visually impaired users, namely *Jaws* and *HAL*. Documents produced in *Microsoft Word* can be translated into Braille by means of *Duxbury Braille Translator*. Translated documents can subsequently be printed or embossed in Braille using the *Index Basic Braille Printer*.

Resources for physically disabled users

Users with dexterity problems may require special keyboards, mice or pointing devices. The LRC has a selection of these items for users to try out. Those who are unable to type may opt to use one of the voice recognition packages such as *Via Voice* or *Dragon Naturally Speaking*, which can be used in



conjunction with a word processor. For viewing documents through a CCTV with split screen output, *Clear View Bright* has a motorised easel, which can be controlled by joystick or foot pedal or can be pre-programmed. Furniture may be an important consideration for users with certain physical disabilities. Over the coming months we plan to install two adjustable height workbenches in the LRC.

Services for disabled users

The LRC provides a number of services to support disabled students and staff. These include self-service Braille printing

for University schools to produce documents for their students, *Quickscan* screening for students who may suspect that they have dyslexia, and demonstrations for students and staff considering the purchase of equipment or software for their own use at home or in the office. Although the LRC is normally only staffed at certain times, arrangements can be made to provide initial training for students who can only visit the LRC outwith normal hours. The LRC website (<http://www.isg.ed.ac.uk/lrc/>) contains information about all our current resources for disabled users, including information about product suppliers.

At present, the LRC's role in providing a comprehensive range of adaptive technologies for disabled users is unique within the University. However, products such as *IBM Home Page Reader* and *Read and Write*, which were originally piloted in the LRC, are now standard features in the University's open-access computing laboratories. This is in keeping with our aim to disseminate our knowledge to others throughout the University, as we gain experience.

Further information about the LRC can be obtained from our website at <http://www.isg.ed.ac.uk/lrc/> or from any of the staff at the Learning and Resource Centre, Main Library, George Square, telephone 650 6684, email lrc@ed.ac.uk.

Table: Disability resources in the Learning and Resource Centre

Disability	Resource	Description
Dyslexia	Dragon Naturally Speaking	Voice recognition software
	IBM Home Page Reader	Screen reading software
	Inspiration	Mind mapping software
	Kurzweil 3000	OCR/Screen reading software
	QuickScan	Screening software
	Read & Write	Text accessibility aid software
	Via Voice	Voice recognition software
Visual Impairment	Clearview Bright	CCTV / Screen magnification / Split screen equipment
	Duxbury Braille Translator	Braille translating software
	Hal	Screen reading software
	Home Page Reader	Screen reading software
	Index Basic Braille Printer	Braille printer (embosser)
	Jaws	Screen reading software
	Kurzweil 3000	OCR / Screen reading software
Physical Disabilities	Cirque CruiseCat Touchpad	Pointing device
	Clearview Bright	CCTV / Screen magnification / Split screen equipment
	Kensington Orbit Trackball	Special mouse
	Logitech Trackman Marble FX	Special mouse
	Microsoft ergonomic keyboard	Special keyboard

LRC – new website

The Learning and Resource Centre (LRC), based in the Main Library, George Square, has a new website, at <http://www.isg.ed.ac.uk/lrc/>

Please review the new site and let me have your comments (email David.Findlay@ed.ac.uk).

David Findlay (LRC)

Helping hearers

It is a little ironic that in terms of disability we at MALTS sometimes have a problem communicating information about what we are doing and why. For instance, over the last few years we have been installing Hearing Helpers, Counter Loops and Induction Loops in a variety of locations within the University.



Reception Desks in the George Square Library with signs to indicate Counter Loops

A Hearing Helper is an infra-red device with a microphone attached, which transmits a signal that can be picked up by a receiver worn by the user and converted either to an audio signal in an earpiece or induced through a neck-loop so that the person can pick up the signal

via their hearing aid. We fit these devices in as many locations as we can; up to now we have installed around 20 per year.

Counter Loops (also known as Ticket Counter Loops because they were designed for use in Theatres, Post Offices and Railway Station ticket offices) are installed in reception desks in places like the Main Library (see pictures) and Servitors desks.

Every time a large lecture theatre is refurbished we try to install an induction loop, a cable around the perimeter of the theatre driven from the public address system, which enables a person with hearing difficulties to pick up the sound through their hearing aid. We normally complete about four of these per year but this Summer is particularly busy and we should end up with five new installations and two upgraded systems before the start of term.

We try to share these installations out across all the University campuses: there are Induction Loops in the George Square Lecture Theatre, The Sanderson Lecture Theatre and Paterson's Land G1, amongst others.

The overall project is managed by Estates & Buildings. We have had to employ outside specialist contractors to assist in this programme, due to the ever-increasing workload in MALTS and E&B. Our objective is to ensure that each small teaching location will end



A counter Loop amplifier fitted under the desk

up with a Hearing Helper, every lecture theatre with an Induction Loop and every reception desk with a Counter Loop. It will obviously take time to reach this target but we are all committed to getting there because we know how important this issue is to the users. If MALTS had a motto it might well be "To be seen and heard," because that is our basic tenet – and it is a principle which should apply regardless of any disabling factor.

Tom Fairnie (MALTS)

Communication Aids for Language and Learning: the CALL Centre

The University of Edinburgh hosts a unit which serves the whole of Scotland and the north of England in providing technological aids to help disabled people. The Centre is based in the School of Education at Moray House, and performs research as well as offering a service to the University, schools, education authorities and individuals. It is funded from a range of sources which enables it to offer some of its advice and consultancy free of charge, though some services and equipment have to be charged for.

The CALL Centre was established in the University in 1983, since when computers have become much smaller, more powerful, cheaper and more practicable to provide disabled people a means for communication, education, recreation and employment. Communication systems with synthesised or digitised voice offer a means of communication for those who cannot speak. Switches and other devices can be used by those with physical disabilities as an alternative to a standard computer keyboard. Enlarged displays or voice feedback offer

computer access to those with visual impairments. Specialised software helps people with writing or spelling difficulties.

However, such a wide range of possibilities brings its own problems: it can be difficult, even daunting, to choose the best solution for a particular individual and help that person to make the best use of what is available. This is where the CALL Centre can help.

CALL provides information and advice, a free assessment and support service, a loan bank of specialist equipment for communication and learning, with technical support if required, and an open-access Resource Library of books, journals, video and multimedia materials. In training and staff development, CALL offers a range of opportunities relevant to people working with children and adults with communication or curriculum access difficulties.

You can find out more about CALL from its website, at <http://callcentre.education.ed.ac.uk/>

Allan Wilson (CALL Centre)



Windows XP accessibility options

The built-in accessibility options in Microsoft Windows XP Professional provide technology that makes it easier for people with accessibility needs to work more efficiently. These utilities, while extremely useful for disability access, are not intended as replacements for full-featured assistive technology products. Users should contact the Disability Office for further information on specialist computer products

The main areas addressed by the accessibility options are keyboard, display and sound. Other configuration options are possible. The built-in features of Windows XP are activated using the Accessibility Wizard, which is in Start / All Programs / Accessories / Accessibility.

Commands that are usually accessed from menus can be issued using keyboard shortcuts instead of using a mouse. In addition, *MouseKeys* allows you to use the numeric keypad to control the movement of the mouse pointer. The repeat delay and type rate of the keyboard can be adjusted to reduce the rate at which key presses are detected, so that holding down a key for too long will not result in multiple instances of that letter being typed. *StickyKeys* allows for multiple key

operations, such as CTRL+ALT+DEL, to be typed one at a time.

The screen *Magnifier* is a display utility that makes the computer screen more readable by people who have low vision by creating a separate window that displays a magnified portion of the screen. This provides a minimum level of functionality for people with minor visual impairment. The display can also be adjusted to increase legibility for some users by heightening screen contrast with alternative colour combinations. The screen resolution can be modified so that the items appear larger. You can enlarge the icons on your screen to make them easier to see or to access by choosing the *Large icons* options. Some of the schemes also change font sizes for greater legibility. You can adjust the blink rate of your cursor and its width on the screen.

If you are deaf or have difficulty hearing sounds from the computer, you can use *SoundSentry* to give visual warnings for system sounds.

For further information on Windows XP accessibility options, see the Microsoft Accessibility Home page, at <http://www.microsoft.com/enable/>

Graham Newton (EUCS)

Web page accessibility

Making web pages accessible to all is no longer merely a moral imperative, it is a legal responsibility. To comply with recent amendments to the Disability Discrimination Act, all web pages published within the University must be made as accessible to all as is reasonably possible. The University's Web Publishing Guidelines (<http://www.ed.ac.uk/webpub/>) state:

"The content of a site should be accessible and navigable under any of the following conditions:

- Without frames, tables, graphics, CSS, JavaScript, Java or any plugins.
- At 600x800 pixels and greater screen resolution.
- Using the following browsers:
 - Under Windows and Mac OS – Netscape Navigator and Internet Explorer vsn 4 and above, Opera vsn 5 and above.
 - Under Unix/Linux – Netscape Navigator version 4 and above, Mozilla version 1 and above.
 - Lynx, pwWebSpeak."

While it may not be possible to test all web pages under all these conditions, testing should be as thorough as resources allow. Publishers must be responsive to all comments relating to problems encountered in accessing the content of their pages.

To help publishers test their pages for accessibility the University has arranged access to an online accessibility checker, LIFT. (There is more about LIFT on page 7.)

A range of other resources exist to help you understand the problems encountered by users of your site and how you can help to overcome these problems, as follows:

Dive into Accessibility

This is probably the single most comprehensive and practical source of advice on the subject. Written as a book, it is available online and as a download, and aims to answer two basic questions: "Why should I make my website more accessible?" and "How can I make my website more accessible?" See <http://www.diveintoaccessibility.org/>

Training

The 'HTML & Web Authoring' and 'Dreamweaver' one-day courses, and from September the 'Accessibility Workshop', provided by EUCS cover issues relating to accessibility, and are available to all staff and postgraduates without charge: see <http://www.ucs.ed.ac.uk/usd/iss/courses/courselist.shtml>

Web Administrators' Clinics

Those using the MIS web publishing service are strongly advised to attend the monthly Web Administrators' Clinics: see <http://www.mis.ed.ac.uk/services/wps/wpc/>

Good Practice Guide

Any web publisher can benefit from a visit to the Computing Services 'Web Authoring Good Practice Guide': see <http://webhelp.ucs.ed.ac.uk/docs/goodpractice.html>

Additional Information

Finally, two further web resources:

W3C Web Content Accessibility Guidelines:

<http://www.w3c.org/TR/WCAG10/>

UsableNet: <http://www.usablenet.com/>

Bryan Martin (CPA)

textHelp Read & Write and textHelp Gold

A site licence has been acquired for *textHelp Read & Write* vsn 6 and *textHelp Gold*. These packages are extremely useful tools, especially for dyslexic students who have difficulties with reading speed, problems with spelling and other literacy skills.

textHelp Read & Write can read out the student's own written work which can help them identify their own errors. The *textHelp Gold* package will additionally read out texts and articles which have been scanned. Students whose reading pace is slow or inaccurate can speed up their intake with this software; over time it may help to increase their reading speed. The text is highlighted whilst being read out, so the reader can follow the script. *textHelp Gold* also features a talking scientific calculator.

The software provides help for the writer to solve complex phonetic spelling difficulties, and provides word definitions. The word prediction feature can be useful for students who regularly misspell or lose the flow of ideas while contemplating the correct spelling of a word. A talking dictionary exists which can encourage improved creativity in written work. An additional feature is the pronunciation tutor which can break unfamiliar words down into more easily recognised parts. Text can also be saved as speech (in MP3 format) and played back later, a useful revision tool for those who find learning by hearing the best form of retention and understanding.

Both versions of *textHelp* will be available from the start of the 2003/04 academic year in the open-access computing labs, and can currently be obtained for school use from EUCS Software Services (email EUCS.Software.Service@ed.ac.uk). The scanning and MP3 creation will only be available on selected PCs. Information will be available from the Web helpdesk.

For further information regarding support and advice for dyslexic students please contact a Dyslexia Advisor (tel 514001/2, email Kathy.Smith@ed.ac.uk or Jane.Kirk@ed.ac.uk).

Kathy Smith (Dyslexia Advisor, Disability Office)

Dyslexia Screening: QuickScan

QuickScan is a self-administered, computerised screening test for dyslexia. It is based on a British Dyslexia Association checklist but has been extended to include learning styles and study skills questions. The test was never intended to provide a definitive diagnosis of dyslexia but, rather, an awareness of how dyslexia can impact on the individual.

QuickScan is a useful first step for students and staff who are having unexplained difficulties with their academic work. It can help to differentiate between specific learning difficulties and the need for study skills support. Directors of Studies and tutors should advise a student to undertake the test if he or she is not attaining the grades that have been predicted. Some of the indicators that should be considered are: discrepancy between

written work and oral ability; if the pace at which they work appears to be slower than other students; or if written work contains bizarre spelling mistakes.

This computerised test is now available to students and staff in the Learning and Resource Centre (LRC) on the 2nd floor of the Main Library in George Square. Its primary function is to identify indicators of dyslexia and to determine whether the person being tested should seek a more detailed assessment. The software generates a report stating whether or not there are indicators of dyslexia together with information on preferred learning styles and the possible need for study skills support. The written report gives the student advice about next steps: for example, whether they require only study skills support or whether they should visit one of the Dyslexia Advisors for further assessment. *QuickScan* now has its own audio version, and *Hal*, a screen reading software package, can read aloud the reports which *QuickScan* produces.

Jane Kirk (Dyslexia Advisor, Disability Office)

Designing courses to be accessible

The Teaching, Learning and Assessment (TLA) Centre represents learning and teaching issues at the Disability Committee and many of its subcommittees, as well as supporting the Disability Office in staff development and in the dissemination of relevant practice.

Designing your courses to be more accessible for students with disabilities and anticipating their needs can increase the accessibility of your learning resources – and the learning activities in your courses for all students. For some general pointers on making your teaching more accessible, you might like to refer to the JISC TechDis site at <http://www.techdis.ac.uk/> where you can find “an advice and information resource via extensive Web-based databases and an email helpdesk.”

For resources concerning disability related to your discipline area it is worth checking out the appropriate Subject Centres of the Learning and Teaching Support Network (<http://www.ltsn.ac.uk/>). There is, for example, a selection of resources pertaining to:

Law	http://www.ukcle.ac.uk/events/access.html
Engineering	http://www.ltsneng.ac.uk/nef/events/disability2.asp
Geography	http://www.glos.ac.uk/gdn/disabil/bibliog.htm

Many more resources are becoming available through projects funded by the LTSN Generic Centre. Further details can be found by selecting ‘Disability’ in the ‘Main Theme’ search box at <http://www.ltsn.ac.uk/genericcentre/projectfinder/>

Mary McCulloch (TLA Centre)

Online teaching materials and the DDA

New technologies can play an important part in providing improved access to course materials and additional support for disabled students. So, for example, electronic course notes, handbooks, lecture notes and other materials can easily be reformatted to provide larger print or different fonts.

In addition, online materials can be the 'reasonable adjustments' required to support students in completing their coursework. Imaginative use of alternatives, such as online lab practicals, can go a long way towards making courses accessible in ways that were not possible even a few years ago.

However, it is necessary to ensure that such materials are constructed in certain ways to provide maximum accessibility for the largest possible number of students. While it may not be possible to anticipate every student's requirements (for of course all students are unique), carefully constructed materials written with validated code and tested against the guidelines will be appropriately adaptable in the majority of cases.

MALTS staff work to ensure that materials they create meet current accessibility guidelines and also provide a range of information and advice. See the pages on accessibility on the 'e-learning@edinburgh' website at <http://www.elearn.malts.ed.ac.uk/issues/accessibility/index.phtml>

See also the special issue of the June 2002 *Learning Technology Supplement*, still available as a PDF file at <http://www.malts.ed.ac.uk/resources/LTS/LTS8.pdf>

Presentations and information from the MALTS seminar on the DDA, SENDA and Web Accessibility are available at <http://www.malts.ed.ac.uk/pages/websites/seminar/index.phtml>

If you would like to discuss making your online teaching materials more accessible or consider an information event for your school on this topic, please contact me at MALTS (email W.Alexander@ed.ac.uk, tel 516543).

Wilma Alexander (MALTS)

Free Licence for LIFT Online

Under the EduServ grants program, the University has secured a site-wide licence to use 'LIFT Online', from UsableNet. This is an *online* service which helps web content developers test and monitor websites for accessibility compliance and common usability issues. The sites can be static or dynamically generated.

The service is available to all web content developers in the University; it is recommended that it be used to help make pages comply with the *W3C WAI Web Content Accessibility Guidelines*, detailed at <http://www.w3c.org/TR/WCAG10/>

To register to use the LIFT Online service, please go to <http://webhelp.ucs.ed.ac.uk/support/accessibility/lift.html>

UsableNet also produces versions of LIFT which work with the website development programs Macromedia Dreamweaver and Microsoft FrontPage. These customised versions of LIFT can be used to monitor Web pages for accessibility and usability issues – *as they are being developed* using Dreamweaver or FrontPage – and fix pages deemed to be inaccessible using 'fix wizards'. More information about LIFT for Dreamweaver and LIFT for FrontPage can be found on the UsableNet website, at

<http://www.usablenet.com/>

Pricing for licences is available from Chest at <http://www.chest.ac.uk/software/lift/purchase-overview.html>

Personal licences are available direct from UsableNet at <http://www.usablenet.com/>

Note that LIFT does not automatically make a website accessible, but it does help to identify potential problems and offer solutions.

Arthur Wilson (EUCS)



Exhibition: "Object Lessons"

Highlights from the Collections of The University of Edinburgh

For the first time ever the University brings together its collections to demonstrate their role – and the role of collecting – in research, and to explore the threads of intellectual development that link objects over time.

Object Lessons is drawn from the rich and diverse collections the University holds, including books and manuscripts, a great portrait collection, and a renowned collection of early keyboard instruments, among a host of others. Highlights include a phial of Fleming's penicillin, the only authentic painted portrait of John Knox, Robert Baker's Panorama of Edinburgh, Darwin's class cards, and the skull of George Buchanan.

Object Lessons runs until 19th July at the Talbot Rice Gallery, Old College. It is open from Tuesday to Saturday, 10am to 5pm, and admission is free.

Find out more at <http://www.ed.ac.uk/events/objectlessons/>

Jacky Miller (Library)



Helen Hayes appointed Vice Principal for Knowledge Management & Librarian to the University

Helen Hayes, currently Vice-Principal (Information) at the University of Melbourne, has been appointed to the post of Vice Principal for Knowledge Management and Librarian to the University. Ms Hayes will have responsibility for developing all aspects of the University's knowledge infrastructure and will head the Information Services Group. The appointment is part of the Principal's top management team, which provides strategic leadership to the whole of the University.

An international figure in the Information and Library world, Ms Hayes has held various positions in academic, school and corporate libraries, before taking up the post of Librarian at the University of Melbourne in 1991, and later becoming Vice-Principal (Information). This post was created in 1999 to combine the three main information centres of the Library, Information Technology Service and the Multi-media Education Unit. Ms Hayes' main areas of achievement to date have been in the management of change, introducing ground-breaking approaches to meeting her University's strategic agenda.

A former President of the Council of Australian University Librarians, Ms Hayes is also an external member of the Stanford University Libraries and Academic Information Resources Advisory Council.

Ms Hayes will take up her post in September 2003.

eProcurement update

In the year to the end of May 2003, the ePurchasing pilot has seen the University make electronic purchases totalling £985K:

System	schools	suppliers	users	amount
Sciqquest pilot	3	30	159	£23K
Sigma pipeline	1		100	£71K
Supplies Team	3 (& 1 admin dept)	4		£284K
Guilbert	3 (& 1 admin dept)	4		£207K
Library EDI		7	10	£400K

Alongside the ePurchasing pilot, the eTendering pilot has also been progressing satisfactorily. There have been three electronic tenders so far, with one still in progress, involving a total of 58 suppliers and £825K worth of electronic business.

Please contact me (email karen.bowman@ed.ac.uk) if you are interested in knowing more.

Karen Bowman (Procurement)

New from the Data Library

The Data Library has recently added the following datasets to its collection for University use:

- Bartholomew Digital Map Data (GB 1: 200,000 and Scotland 1:10,000)
- Census of Population for Scotland, 2001 (various titles on CD)
- Family Resources Survey, 2001–2002
- Millennium Cohort Study: First Survey (Interim Version), 2001–2003
- National Child Development Study Teaching Sets
- Scottish Church Attendance Census, 2002
- Scottish Household Survey, 2001
- Scottish Indices of Multiple Deprivation, 2003
- World Development Indicators 2003

The full list of holdings can be found at <http://datalib.ed.ac.uk/holdings.html> Please contact the Data Library at datalib@ed.ac.uk to gain access to any of these datasets, or for more information about them.

Robin Rice (EUCS)

Just like the real thing

The Graphics and Multimedia Resource Centre at the King's Buildings has upgraded its 3D modelling facilities, and now offers '3ds max 5' (the current name for 3D Studio Max) with the latest Character Studio running on a very capable new PC. This is a comprehensive and powerful toolkit for constructing, rendering and animating all kinds of solid objects and scenes.

For a completely different approach to 3D virtual scenes, we have Bryce 5 running on a G4 Apple Macintosh.

AutoCAD 2002 is available to provide for three-dimensional architectural and engineering designs.

These are all available in the Graphics and Multimedia Resource Centre, room 3901 in the James Clerk Maxwell Building. See <http://graphics.ed.ac.uk/gmrc/> for details, how to find us, etc; or email graphics_support@ed.ac.uk, or telephone 504965.

John Wexler (EUCS)

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NB: if you fail to access a URL specified in *BITS* please email BITS@ed.ac.uk

Contributions to *BITS* are welcomed.

Copy deadline for August *BITS*:

Friday 18th July