

# Bringing Staff (Faculty) up to Speed: CD-ROM Access via a Wan at the University of the Witwatersrand, South Africa

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# **BRINGING STAFF (FACULTY) UP TO SPEED: CD-ROM access via a WAN at the University of the Witwatersrand, South Africa**

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## **Introduction**

Academic staff (faculty) at the University of the Witwatersrand (Wits) access the CD-ROM LAN in the Library via a Campus Network. The years of sanctions and rising import costs in South Africa has caused the expense of online database access and CD-ROMs to be disproportionately high and in some cases has priced access out of the market. Equipment and networking to access electronic information in South Africa is expensive and to some extent a lack of extensive technical expertise for efficient operation still exists.

Many local researchers continue to manage with paper versions of indexes and abstracts as well as the present electronically accessible information but those who travel to first world countries frequently experience advanced electronic access. As the development of and access to digital databases expanded academic and library staff in South Africa began to extend their involvement. Hardware and software links for CD-ROMs became more readily available and thus the electronic era took on increased importance. Once the electronic links were installed all science departments were encouraged to participate in the new facilities. The development and extent of the physical and personal networking at Wits to establish user confidence is discussed.

When public CD-ROM PCs were acquired for general use and linked to some of the divisional libraries and staff offices, the necessity for many more Library Staff to be skilled searchers of electronic databases became of paramount importance. The implications of the training of users and library staff are examined.

## **LAN development at Wits**

In 1991 at the Wits Library a small CD-ROM LAN was installed with Optinet software for users to access the ISI Science Citation Index. A couple of years later the Wartenweiler Library was networked with a 10baseT topology [1] and the file server (LIBRIS) was routed to the Campus backbone. CD-ROM towers were connected to the file server running on Novel 3.12 with SCSI express, so that more CD-ROM titles were able to be mounted. Academics (faculty) already linked to file servers in their own departments were now able to login to LIBRIS via the University WAN and access CD-ROM data from their own offices. Inefficient connectivity still occurs where older equipment is used. Students access the CD-ROMs from PC's installed in various libraries. Facilities in large computer laboratories and residences are still unavailable. University IT task groups have clearly identified the need for more computing facilities.

World Wide Web expansion (even operating on an insufficient bandwidth in South Africa) and subsequent increased access to overseas databases led to an increasing awareness of the information explosion for many staff and students, especially in the Science Faculty. Science orientated students are sometimes more computer literate than staff but have the disadvantage of not always being able to validate the information gathered, especially from the Internet. Staff from the College of Science provide computer training to educationally disadvantaged students. Full documents from reference lists found on the Citation Indexes frequently have to be acquired from Inter Lending as our journal stock has been depleted through the years of sanctions and high costs. Electronic access has gone a long way to bridging the gap between the information rich (in first world terms) and the information poor (in third world terms). The WAN at the University, with its telnet links, has increased access to international scholarship at Wits and, once co-operative agreements have been established, with neighbouring institutions.

### **Physical Networking at Wits (~~see diagram 1~~) (not available).**

- *Link from offices via file servers on campus:*  
There are about 33 file servers on the WITS campus and over 60 departments and research groups have users linked to LIBRIS. Once LIBRIS was installed our first links came from the Department of Chemistry for access to the Science Citation Index (SCI).
- *IDs per Department to link to LIBRIS:*  
Regular contact exists between Library Computer Services and the departments, relating to ID access and customised menus. Initially only one access ID was supplied to each department to share among themselves because we only had 1-5 user licences for the databases. Site licences have now been negotiated and more IDs are able to be supplied as necessary, especially in large departments.
- *Most used CDs are available on the LAN:*  
The LIBRIS file server has 7 SCSI host adaptors connecting 7 CD towers. As available CD-ROM slots are limited, those CD-ROMs which are most in demand are mounted on the LAN. Full text retrieval systems and electronic document delivery facilities are urgently needed to meet research needs especially in the sciences.
- *Lesser used CD-ROMs on single drives in libraries:*  
CD-ROMs with smaller databases are run on single drives in the Library Computer Services department. Subject specific CD-ROMs and those accompanying journals are in particular divisional libraries for users come in to access them on PCs with single CD drives. It is not the ideal situation but does serve users needs at minimum expense.
- *Libraries linked to LAN for users:*  
The University Library comprises two Main and 10 divisional libraries. Two of the libraries are off-campus and have their own file server access to LIBRIS and its CD-ROMs. Four of the libraries have recently been connected to the LIBRIS LAN and consequently have specially set up CD-ROM PCs for user access. This has increased the total number of public PCs in libraries dedicated to CD-ROM access to 18, (exclusive of OPAC access). The library CD-ROM PCs have individual printers attached for users to print searches.

- *Academic staff training in use of CD-ROMs:*  
The most effective training for academic staff is one-on-one assistance by library staff [2]. Until the University campus backbone was completed staff had to come to Library Computer Services to search indexes and individual help was easy. Once access to the CD-ROMs became available from offices, staff only came or phoned for assistance when required. Appointments between library staff and academics are scheduled on request for anyone who needs training.
- *Library staff training to help all users:*  
The library has an Electronic Resources Librarian and an Information Retrieval Librarian both highly skilled at electronic information retrieval and able to train users. With the expansion of the LIBRIS LAN other library staff have been trained to assist users in their libraries. As well as basic search training, practise and confidence are needed to optimise the use of electronic facilities.
- *Electronic Classroom (ECR):*  
The development and networking of the ECR at Wits University was designed with end-users and developing library staff in mind. Ring and Vander Meer [3] defined many of the key issues, including multiple uses and future needs, that we were able to incorporate.  
The ECR at Wits:
  - initially has 10 workstations but is wired to accommodate 24 when more funding becomes available,
  - is linked to the LIBRIS LAN and all its software including the CD-ROMs, Internet access and other online databases,
  - is console operated,
  - has the connections for ear phones are installed but will only be connected in the next stage of funding
  - can run on a Windows or DOS environment,
  - has an overhead data projector which can be linked to a laptop if necessary for individual software,
  - has a CD-ROM drive for the use of single CD-ROMs,
  - has all PC hard drives for Internet training or such like,
  - has white boards, chart facilities, regular overhead projector and screen facilities.

### **Personal networking at Wits (see diagram 2) (not available).**

Personal networking with regard to library computer usage at the University is on the increase. It can be divided into two sections; tutoring and meetings.

#### **Tutoring:**

##### *One-on-One Assistance:*

One-on-one communication is the most effective and rewarding of all our liaison situations. It can take many forms via many communication methods; the most common situations at Wits are:

##### » **Hot line:**

Library Computer Services has two "help hot lines"; phone and e-mail for users to seek assistance or report problems.

##### » **Informal environment:**

Academics visit the Library Computer Services department regularly

for searches on single CD-ROMS. Informal news swapping and chats about techniques of refining searches provides valuable personal networking. LCS is open on weekdays from 8am to 4.30pm.

» **Contact for IDs and usage:**

Liaison is needed so faculty know to apply for ID access to LIBRIS, or for what new titles are available. This is advertised in Wits Reporter (internal newspaper), Computing and Networking News, meetings, cocktail parties, departmental visits, word of mouth by both librarians in divisional libraries and between academics. Individuals who wish to enquire further contact the department by phone, e-mail or a visit.

- *Electronic Classroom (ECR):*  
Training of library, academic staff and postgraduate students on use of CD-ROMs occurs in the ECR. Training of all students on OPAC and other facilities also occurs. At the start of the academic year lectures to groups of students, tutorials and one-on-one training is carried out [4]. Staff frequently come to be initially trained before continuing on their own in their departments. Some tutors train their own students on CD-ROM access using the library facilities. The Library has a full time Librarian for education and training.
- *Video orientation:*  
The library has a basic video presentation for new students and staff which is available on request for anyone to view. During orientation week the video is run regularly several times a day. Computer facilities of the library are demonstrated in the electronic classroom after the video.
- *Group Help and liaison:*  
When new titles arrive and are installed on LIBRIS the relevant academics or their departments are informed and often come for a group demonstration. If titles are received on trial the relevant academics are encouraged to come and test the databases. Tutors sometimes ask to use the library facilities to train their own groups of students on CD-ROM usage, either with or without library assistance.
- *Tutorials and visits to Academic departments:*  
Where access to LAN is not smooth or efficient we visit the particular academic to ascertain the cause, eg: Physics wanted to access LIBRIS from Windows 95. Biophy Library links to LIBRIS through a transceiver and the bootroms needed to be on the Gecko server. Library staff are frequently asked to give talks or lectures in departments to promote or update staff on facilities available.

## **Meetings:**

- *Ad Hoc groups and committees:*  
Some of the academic staff have willingly joined committees to give user input to the Library, eg: an Ad Hoc survey Committee has academic staff members from Engineering and Chemistry departments, and student representation.
- *Academic & University Computer Support member on Library Automation Committee:*  
The Chairman of Senate Library Committee is a member of the Library

Automation Committee. Currently he is from the Chemistry department. The meeting also invites the director of Computer and Networking Services to attend.

- *Senate Library Committee:*  
Senate Library Committee comprises the University Librarian and academics across the spectrum of the university. They discuss the policy matters of the library.
- *Computer resources meetings:*  
Various computer liaison meetings are held to prioritise and activate work that needs to be done by the Computer and Networking Services for the Library and other service divisions of the University. It frequently happens that interested academics are part of the meeting to support and encourage library activities.
- *IT Group (mission):*  
When new IT vision documents, plans and mission statements are defined or updated academics and library staff are consulted or included in meetings. Academic staff especially in the sciences realise the importance of the library as a pivotal service to electronic information seekers.

### **Training Users:**

Efthimiadis [5] investigated the searching patterns of UCLA users from predominantly science libraries and concluded that users lacked basic search techniques to make their retrieval efforts fully effective. At the University of Northumbria the IMPEL (IMpact on People of Electronic Libraries) project was initiated to investigate the human aspects of increased electronic provision in six UK academic libraries [6]. Of interest to Wits is that the study included, "the knowledge, skills and training required by academic librarians and the implications for both initial and continuing training and development." One significant result from the IMPEL project was that with the introduction of electronic information access, librarians experienced an increased workload, expanded to encompass training and the compilation of simple documentation as well as regular duties. More time is spent in promoting services especially in academic departments, resulting in huge increases in enquiry work. Thus the move to electronically held information has not in fact "freed up" time for librarians. The Wits environment is still in the early stages of this development: whilst some areas of the library are spending time training staff, writing documentation and promoting the electronic services to academics other areas have only recently been linked to LIBRIS and the CD-ROMs so their promotional and training functions are only just starting. A further interesting observation at Wits, borne out by the IMPEL study, is that where library staff are involved in electronic services there is increased job satisfaction even though there is a component of growing stress! Frequently such stress evolves from the lack of time of staff to familiarize themselves with and to remember the various systems and search engines needed to be able to provide a quick efficient service. Until a period of experience has been built up we have times of "crisis" or "firefighting" service provision rather than planned career development. Other frustrations occur when the hardware malfunctions and users or library staff have to wait for a response to a help call.

Further projects resulting from the IMPEL project [7] recognise that planning, training and good communications are necessary to avoid resentment or bewilderment

among staff working in the changing environment of information gathering via electronic services. Considering similar issues, Van Brakel [8] from his experience at RAU (Rand Afrikaans University) suggests that in-service training and end-user training be carefully planned to optimise the use of IT facilities in the library. Training should be addressed at all levels from current awareness to retrospective searches. Orientation training sessions should be followed up by more intensive instruction either formally or informally as one-on-one instruction. For this to be effective all librarians involved with CD-ROM facilities need to be carefully trained in their use.

### **Training Library Staff**

Writing about Africa, Kebede [9] views CD-ROM as appropriate technology for developing countries, with low financial input and weak infrastructure, as against online technology. Training in the use and management of CD-ROM services is spreading rapidly to end-users and is a good solution for the information gap, where online services are limited. Fitzsimmons [10] stresses how librarians can promote information literacy through helping end-users distil meaning from information, (value added services). To address the issue of "technostress", this stress has already been referred to above, Fitzsimmons proposes that staff should have guidelines for selection and use of hardware; guides to navigational, evaluational and manipulation skills for electronic resources.

Along with the facilities for sophisticated access to electronic information, the development of library staff is necessary in order to achieve efficient retrieval. Development of staff includes the need for staff to have a clear understanding of the information needs of the academics and library staff as well as the know-how to respond to changing user needs [11]. Library staff will need to be encouraged to move out of comfort zones into new and challenging areas. Although part of this process is the responsibility of the individual, libraries need to provide environmental and training facilities conducive to stimulate change. At Wits University Library the appointment of an Education and Training Librarian and a recently installed Electronic Classroom has provided both the person and the environment to aid development of all staff. The component of individual motivation (both for Library and academic staff) is the last remaining factor in the change to efficient electronic information retrieval. To promote use and motivate access to electronic information the library has been pro-active in both physical networking and personal networking. Initial success in this field has come from the Sciences and Engineering faculties.

### **Future prospects at Wits:**

- In order to promote use, Wits is working towards getting CD-ROMs, OPAC facilities and Internet available on all the public access PCs.
- Increased Inter-University co-operation.
- The interaction between information providers and information seekers will be enhanced by technology such as scanning projects for electronic reserves, document delivery, and by more standardised search engines eg: in Worldnet.

A situation not yet tried at Wits is the "PowerUp" program used at Wake Forest University to prepare 40 freshmen to take advantage of computing facilities [12]. The

program covered 3.5 days at a "Computer Camp". Library staff taught modules on Internet, their local system, and basic CD-ROM. Faculty and Computer Staff were also involved. Following the success of this project faculty requested such a program for themselves too. Wits University covers the training in a more fragmented style, in which students and staff are encouraged to participate in separate training sessions for each activity that they need to learn at the time they require it. A "PowerUp" program could well be investigated for new members to the University, especially within the sciences.

### **Conclusions:**

- Structured training programmes and updates are required for all Library staff at the Client services interface, who may have to help users with searches.
- An effective and stable network on a university campus is essential if all users are to gain maximum benefit from the electronic information age.
- Planned, regular wide spread dissemination of updated information by Librarians to faculty is required.
- Personal networking is still the most effective tool to "Bring Staff Up To Speed."

### **References**

1. WILCOCKS, J. Local area network expansion at Wits, **Electronic library**, 11, 1993, 249-251.
2. WILCOCKS, J. and LABURN, N., Relevant training in the practical use of CD-ROM databases at the Wartenweiler Library, University of the Witwatersrand. Unpublished paper read at the InfoAfrica Nova Conference, Pretoria, May 1994.
3. RING, D.M. and VANDER MEER, P.F. Designing a computerized instructional training room for the library, **Special libraries**, v.85 (3), 1994, 154-160.
4. Ibid
5. EFTHIMIADIS, E.N. A study of end-user behavior in searching CD-ROM bibliographic databases, **Proceedings of the 15th National Online Meeting, New York May 10-12, 1994**, Learned Information, 113-120.
6. EDWARDS, C., DAY, J.M. and WALTON, G. IMPEL project: the impact on people of electronic libraries, **Aslib proceedings**, v.47 (9), 1995, 203-208.
7. DAY, J.M., WALTON, G. and EDWARDS, C. The human face of change, **The Library Association Record: Library Technology**, v.1 (1), Feb. 1996, 18.
8. VAN BRAKEL, P.A. Implications of networking CD-ROM databases in a research environment, **South African journal of library and information science**, v.61 (1), 1993, 28-34.

9. KEBEDE, G. CD-ROM: A medium for Africa in the year 2000 and beyond, **Online & CD-ROM review**, v.20 (1), 1996, 31-32.

10. FITZSIMMONS, J.J. The third industrial revolution and information literacy, **Proceedings of the 16th National Online Meeting, New York, May 2-4, 1995**, Learned Information, 121-127.

11. JENNINGS, L. Regrowing staff: managerial priority for the future of University Libraries, **The public-access computer systems review**, v.3 (3), 1992, 4-15. Retrieved from: [LISTSERV@UHUPVM1](mailto:LISTSERV@UHUPVM1).

12. CHANNING, R.K. PowerUp! Getting wired up at "Computer Camp", **The Journal of academic librarianship**, September 1994, 223-224.

#### **ACRONYMS:**

**BIOPHY** - Biological and Physical Sciences Library

**CD-ROM** - Compact Disk Read Only Memory

**ECR** - Electronic Classroom

**ENGIN** - Engineering Library

**GEOMATHS** - Mathematical and Earth Sciences Library

**IMPEL** - IMPact on People of Electronic Libraries

**ISI** - Institute for Scientific Information

**LAN** - Local Area Network

**LCS** - Library Computer Services

**OPAC** - Online Public Access Catalogue

**RAU** - Rand Afrikaans University

**SCSI** - Small Computer Systems Interface

**UCLA** - University of California, Los Angeles

**WAN** - Wide Area Network

**WITS** - University of the Witwatersrand

**WLM** - Wits Library of Management

**WML** - Wits Medical Library

**WWL** - Wartenweiler Library (Main Library)