

CD-ROM AND ITS POTENTIAL AND PROBLEMS IN PART OF THE PACIFIC

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Abstract: As elsewhere, CD-ROM is a medium which has potential for delivering information not otherwise available to information seekers in the Pacific. In the Pacific as in countries in other developing areas, there remain obstacles to the free availability of CD-ROM technology. Telecommunications outside the home country are still beyond the financial reach of most users, impeding networking beyond the home country. The non-standard and ageing range of computer hardware used and lack of trained backup staff are among the difficulties. Individual CD-ROM subscriptions are barely affordable, the number which can be afforded limited and license fees are out of the question. Potential users in this region are less aware of the possibilities of CD-ROM because of lack of exposure to communications technology. The University of the South Pacific Library, as a leader in such technology in its region of twelve member Pacific Island nations has had some success with working to bridge these gaps; but there is a long way to go before Cd-ROM is used in the region to best advantage.

For a world-wide library network to work publications and information must be affordable. Some information does not now appear in print at all, only in an electronic format. The increasing use of information technology has widened the gap in some ways between first and third world information seekers, rather than narrowed it.

The costs of using electronic media, particularly payment for telecommunications beyond the home country, are obstacles for smaller or poorer nations, keeping their government, researchers and students information-poor. Some are dearer than the previous paper alternative. Increased subscription charges for printed sources, brought about by shorter print runs, result in cancellations by libraries which lack the funds to pay for the increases.

The University of the South Pacific has now been in existence for twenty-five years. Our membership is of a group of twelve countries; Cook Islands, Fiji, Kiribati, Marshall Islands, Nauru, Niue, Solomon Islands, Tokelau, Tonga, Tuvalu, Vanuatu, Western Samoa. Fiji with almost 800,000 residents is the

largest, and Tokelau with 1700 or so the smallest.¹ USP has a Charter, which defines its purpose in the region. In essence this empowers USP through education, research, advice, and liaison with other institutions and bodies to work for the better provision of education, training, consultancy and research to the communities of the South Pacific.

The range of CD-ROM services is expanding. Cd-ROM services could offer a part-solution to the information gap or scarcity of materials to regional governments, researchers and students. Various circumstances limit the immediate widespread use of CD-ROM in the Pacific. They can be grouped as follows;

Equipment

A variety of hardware of varying ages and types can be found around the region. CD-ROM players and servers, etc. remain rare. With CD-ROM, regardless of demand, in the least expensive configuration one machine serves only one user at a time. To spread use the library must have more PC's and/or access to Local Area Network (LAN) technology. Multiple PC's let alone access to a LAN are not there in most cases. To put networks in place requires good local telecommunications. Even the basic tools of communication (modems) are not common in smaller Pacific countries. The potential cost for a small community to establish these links may be beyond their reach.

Backup

Until recently the equipment, training and technology required to support automation in libraries of the region was completely unaffordable. This is changing. Giving suitable professional and technical backup, it is becoming more feasible for small Pacific libraries to use computers.

The level of technical skill required to operate and maintain a personal computer has diminished. Nevertheless the problems in the Pacific can begin at the level of knowledge and skills to maintain hardware and to carry out routine troubleshooting. There is the added difficulty that the local climate is hard on computer equipment and software. Even if it is located in an air conditioned space, which is not very common, a computer remains subject to the intermittent failures of the local power supply, or may have to be run off a generator, with the power supply problems which go with that.

Trained programming help for trouble shooting, is something which is within the reach of most individuals and organisations in metropolitan countries. This is not always so in the Pacific. Such things as awareness of current viruses and the means to deal with them may be absent.

Networking

Limits to availability of telecommunications to reach providers in other countries and hence share their information facilities are a major obstacle. In a recent "New Scientist" article, Holderness stated that more than half of the world's population has no access to the telephone network². A lack of telephones is certainly the case in Fiji and other parts of the Pacific outside the larger towns when access to telecommunications may be at the level of sharing the village radio telephone; patently of no use for electronic data reception.

Even when these difficulties are overcome there must be compatibility of equipment, and of the satellite used, between the countries. For example, there are at least two satellites in use in the region for voice transmission.

Licence fees

Most Pacific countries do not have copyright legislation, and most are not signatories to the various international intellectual property conventions. Consequently they are not keeping abreast of technology in their copyright legislation, and are not bound to recognise the rights of others at law. At a meeting in 1976, the legal officers of several countries of the region expressed their uneasiness with the concept of copyright in the face of the potential which if offered for conflict with traditional culture and custom.³ This was still the stand of some countries at a World Intellectual Property Organisation workshop in Suva last month. A few countries, notably Fiji, have legislation, although dated. Fiji's based on the pre-independence British legislation of 1956 is the most up to date. It is dubious if publishers of CD-ROM realise this, but if there should be expansion in use and breaches then occur, this could be an obstacle of its own to expansion without suitable contracts with CD-ROM users.

Most existing intellectual property law has not kept pace with CD-ROM. Licensing has been established to deal with concurrent use. Licensing is simply unaffordable. USP Library runs an on-campus CD-ROM network. The number of products offered is small. Attempts by USP Library to explain to suppliers that our expansion in usage if we were to network their products would be minimal in the early years, and that if they were to grant licenses which we could afford that there might be long-term usage benefits have largely fallen on deaf ears. Consequently we have been unable to network any product which is not in the public domain.

Use / expertise

Many countries of the region are still awakening to the range and potential of the materials which libraries can draw in for them to assist national cultural and practical interests. The information-seeking behaviour of many potential library users has not yet developed. Unsupported para-professionals are not fitted to offer the range of skills which would augment the perception of the potential of libraries in their respective countries. The situation is improving as perceptions of libraries and what they can offer broadens, but the spiral of lack of awareness and poor pay continue to be the revolving cause and effect of the short supply of librarians.

There is frequently no pool of potential library staff to draw upon when vacancies occur. It is not uncommon to have to recruit a beginner to fill a library vacancy in smaller Pacific countries; a beginner in need of training from basics. In addition recruitment gaps in the Pacific can last months or occasionally years between appointments. There is a problem of retaining staff in the face of turnover. It is not uncommon, particularly in smaller communities, for the well-trained and educated to move on to better paid and bigger things; or to emigrate.

Even if CD-ROM products continue to become relatively cheaper, for many countries the equipment itself, and the technical backup which it requires is sufficiently scarce that familiarity with its potential it will not become common for some time to come. The other problem is that most regional library staff away from the very largest libraries are para-professionals or trainees. However enthusiastic, they are frequently working in isolation in remote areas without professional contacts and awareness or support or local supervision.

Lack of education in automation breeds a lack of knowledge and confidence to expand services into new media. The coverage of the University of the South Pacific's librarianship curriculum is largely as might be expected anywhere. Courses are offered exclusively by distance education. Teaching the skills needed to gain access to the information of the world is not possible because of the difficulties of teaching automation in any mode other than face-to-face. The uneven distribution and variety of automation hardware in the home countries of students is a problem for our curriculum, as many libraries have until recently been constrained to share the hardware of their parent body, where this hardware exists. There is the further matter of there being a lack of technical staff to provide students with the on-site backup. Consideration has been given to conducting summer schools on aspects of automation to overcome this difficulty, but has not yet proceeded. One factor to be overcome is the costs involved in getting students to such courses. The original thinking behind the use of distance education by

USP was to avoid the cost of travel for students and their governments as likely to act as a deterrent to enrolment.

Products

The cost of maintaining subscriptions to CD-ROM services is a major factor. Many library budgets are smaller than the price of just one subscription. Aid donors have been reluctant to make an ongoing commitment to subscriptions to serial titles, and now to CD-ROM services. No broadly definable trend has yet emerged in the field of aid to provide CD-ROM subscriptions. Some specialised aid projects such as that of CTA (Technical Centre for Agricultural and Rural Cooperation) and the Royal Tropical Institute in Amsterdam, which has introduced CD-ROM technology at 11 sites in 8 countries, including in Western Samoa and Fiji have recognised a need. When such aid is given there is the difficulty of continuing when the recipient is on his own after aid ceases. The money to keep some of these projects operational is simply not there without financial support, even though some of the obstacles such as introducing expertise and hardware into a particular facility are overcome by some projects.

Some publishers have not extended their coverage from print to CD-ROM, others have started new products on CD-ROM without producing a print form. For libraries of the Pacific, these latter are a particular problem until CD-ROM technology becomes more widely distributed. The coverage of CD-ROM mainly falls into three groups; locally generated bibliographical tools, commercial bibliographical and abstracting tools and full-text services. Each has their uses.

Local bibliographical. These are vital for the information future of our region, as there are books and periodicals published in the region which are not accessible to the region (or to the rest of the world), as they are not covered in more widely distributed indexing and abstracting services, bibliographies, etc. Such tools would provide the means to improve access to unique local materials such as manuscripts and pictures, and to handle records of material such as sound collections in the areas of oral history and music. USPL is contemplating production of a South Pacific CD-ROM bibliographical service which utilises a range of existing bibliographical input. The other possibility, possible production of a widely distributed USP Library CD-ROM catalogue is looking more feasible.

Commercial bibliographical and abstracts. These perform the role expected of them elsewhere, but with the important difference that what they are the key to is mostly not going to be locally available. More frequently than elsewhere the product of a search of a bibliographical source will be an inter-library loan request. The cost of the seemingly basic inter-library loan may not be affordable,

or frequency of requests may be limited by the means of the country, the budget of the library or of the user. Lenders may waive charges to particular libraries, but this is by no means certain, and the option to do so is not always open to the host if his own budget is to balance. Even where libraries abroad do offer free inter-library loans, costs to make requests or to return items to the lender can be a limiting factor.

Full text; these are where the potential for significant collection augmentation lies. However the subscriptions to major services such as "Business periodicals on disk" and "ADONIS" are beyond the financial reach of the libraries of smaller or poorer countries, especially as there may also be royalties for usage unless the library already has a hard copy subscription, which is not the point. Libraries which are aware of these services see them as an alternative to the hard copy subscription. Market forces are working to reduce these factors. Prices seem to be stabilising or declining and can be expected to continue to do so. As the medium gains popularity, publishers should be more willing to allow republication in this form, broadening coverage. CD-ROM will then be in a position to support libraries in regions such as the Pacific to offer a better range of services and materials to their users.

USPL has experience and skills, and has the technical and physical ability to assist others. Financially there can be limitations. Regional travel is expensive and there is no substitute for the presence of an expert or helper with the trainee. In some areas USPL is already active, most notably with the PIMRIS (Pacific Islands Marine Research Information System) project, which is based at USPL. PIMRIS' membership is wide, being drawn from that of the South Pacific Commission, working out of marine or fisheries departments in member countries. Many PIMRIS members have now been trained to use the inexpensive UNESCO sponsored package CDS-ISIS to catalogue their material. Work done by PIMRIS members using this has been successfully downloaded on to the USPL's URICA 2000 system, to generate the MOANA data base, which PIMRIS checks in response to researchers' requests received from all over the world, and which is now being distributed on floppy disk to contributors. As I see if the future of MOANA lies with CD-ROM. Being aid-funded the long-term nature of PIMRIS cannot be predicted. The model exists, but so too does the paradox, as without financial support or aid USPL can only do a certain amount for the region when this is not for USP itself, because despite the Charter's powers, USP must properly use the funds which are allocated for the designated function of the allocations, limiting flexibility to diversify our activities.

Wide adoption of CD-ROM would have its benefits, as there would be less need for the use of telecommunications than would otherwise be the case. It is to be hoped that the difficulties can be overcome. We would hope to foster the development of use of CD-ROM within the countries to which we have an obligation to assist in their development. We hope to produce a USP catalogue on CD-ROM for particularly regional distribution, thus minimising inter-library loan costs for regional colleagues. At this stage most libraries in these countries will not be able to take up the use of CD-ROM to any major extent unless USP and others can cope with, or turn around, some or all of the governing factors.

Notes

1. "Pacific Islands Yearbook". 16th edition, 1989.
2. Mike Holdernes. Down and out in the global village. "New scientist". 8 May, 1993. p. 36.
3. East Asian-Pacific Copyright Seminar, 15-20 August, 1976 - Sydney. "Papers and proceedings".

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