

**scis**

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SCHOOLS CATALOGUE INFORMATION SERVICE

connections

'A valuable national asset ...'

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SCIS Subject Headings Fourth Edition book launch

In launching the *SCIS Subject Headings Fourth Edition* Keith Gove, Manager of Information Services at Curriculum Corporation, described the SCIS Subject Headings as 'a valuable national asset' and 'a unique contribution to the use of Australasian terms, language and cultural ideas in schools'.

The book was launched on 29 November 1999 in the Library of Academy of Mary Immaculate School in Melbourne. The school's Teacher Librarians value the importance of SCIS in the management of their library procedures and were pleased to have the launch in their library. Over fifty people attended, representing the wide range of those who have an involvement with SCIS: Teacher Librarians, for whom SCIS exists, and who make the service what it is; cataloguers from the SCIS Agencies; representatives from government and non-government sectors; colleagues from national and state school library associations; tertiary institutions who train Teacher Librarians; representatives from library automation suppliers; and current and former SCIS staff.

Wesley Young and Douglas Down were the guest speakers at the launch. They were the founding fathers of SCIS. They were educators and leaders in Teacher Librarian circles, and held positions within SLAV, ASLA and the

ASCIS Board. Their 1974 and 1977 reports which were funded by the Commonwealth Schools Commission led to the creation of the then ASCIS, now SCIS. They gave a most entertaining and informative joint presentation with dialogue and songs which immersed the audience in the background to the establishment of a national cataloguing service to schools.

Keith Gove reiterated the long way that SCIS has come since those early days. Nearly 8,000 schools are subscribing to SCIS in 2000 (80% of all Australian schools), with over 6,000 of these schools downloading catalogue records via the Web. In 1999 over 4 million records were downloaded, which could be seen as a saving of about \$30M in cataloguing time. *SCIS Subject Headings Fourth Edition* sold over 2,000 copies pre-publication which is a major achievement for a \$90.00 publication. Keith said that he was hopeful that most Teacher Librarians in Australia would come to view this publication as a valuable cataloguing and searching tool in schools.

Keith outlined the new features of the fourth edition:

- new easier to read format, conforming to international subject headings approaches
- nearly 200 new headings, almost 100 replaced headings and a number of cancelled headings

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SCIS
CURRICULUM CORPORATION
CASSELDEN PLACE
LEVEL 5, 2 LONSDALE STREET
MELBOURNE VIC 3000 AUSTRALIA
PO Box 177
CARLTON SOUTH VIC 3053

Tel: +61 3 9207 9600
Customer Support: 1800 337 405 (within Australia)
Fax: +61 3 9639 1616
Email: scisinfo@curriculum.edu.au
Internet: <http://www.curriculum.edu.au>
ISSN 1440-2076

'A valuable national asset ...' (cont.)

- significantly expanded 30 page introduction that provides more advice to Teacher Librarians about how to use the subject headings
- major revision of headings for Aboriginal peoples.

'The revision of the headings for Aboriginal peoples aimed at replacing dated terminology with more acceptable vocabulary that is consistent with that used in Aboriginal studies courses. Initiated by the New South Wales Agency, the revision process involved consultation with State Aboriginal Studies Consultants and research and debate by all the Agencies over a two year period'.

'Feedback from Teacher Librarians helps SCIS to monitor changing terminology and the need for new subject headings. Proposals for new headings from Teacher Librarians are studied at Agency level, curriculum experts are consulted, and position papers are written for national teleconferences at which new headings are discussed and confirmed if agreement has been reached. With the pace of change in the world of education this process needs to be ongoing'.

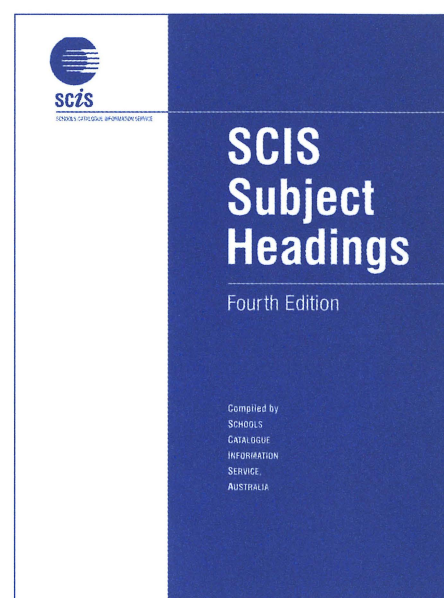
Keith also recognised the work of the many people who had contributed to SCIS and the Subject Headings publication, now and in the past.

'This edition is not created in a vacuum. It builds on the substantial work of many people who have gone before us. People like Doug and Wes who commenced the process,

and Lance Deveson and Ellen Paxton who continued the development of SCIS throughout most of the last decade. Recognition is due to them and to others such as Cherryl Schauder, SCIS National Cataloguing Coordinator, who did very important work conceptualising the new format. The final product has been a team effort of all those in SCIS, the SCIS Cataloguing Agencies and staff in other parts of Curriculum Corporation. Significant input in the creation of the headings comes from the Agencies, with special thanks going to Bev Blackwell, Anne Dowling, Edwina Dunn, Mavis Heffernan and Noel Carthew. Dawn Whitmore and Rod Barker assisted Cherryl with aspects of the content and layout. Jan Matthews assisted at the outset in extracting data from Voyager and Tricia Nathan achieved over 2,000 pre-publication sales. Curriculum Corporation IT support has been essential, with contributions from Rebecca Morton and Graham Williams. The publishing and editorial team along with Corporate Services in Curriculum Corporation supported SCIS in the process of this publication'.

Keith also reminded the audience of how Bev Blackwell and Janet Hansen from SCIS Cataloguing Agency in Western Australia created the first Subject Headings list in 1983. 'They faced a mammoth task when they began the project of taking headings from the five State lists and placing them on 10,500 individual cards. They rationalised terms based upon criteria they had established, ending up with 8,000 accepted terms. The list was machine readable and available in a variety of other formats as required'.

'This fourth edition containing 559 pages is a valuable cataloguing and searching tool for all Australian schools. It is needed by SCIS subscribing schools when assigning subject headings to those locally produced resources for which a SCIS record is unlikely to be available, and it is helpful as a 'look-up' tool to suggest terms that students might use when searching their school catalogues. We hope Teacher Librarians will purchase this latest edition to ensure that they are using the most up-to-date tool in their library'.



Ordering details for *SCIS Subject Headings Fourth Edition* are available on the back page of this newsletter.

Written by Tricia Nathan SCIS Customer Support/Marketing

Using SCIS Subject Headings Book with students: a school's view

We have a school library serving grades 7 to 12. We keep a spare copy of *SCIS Subject Headings* on the workstation where most of our library's OPACs are located. We find that students who have been shown its use, especially in the older grades, will use the publication as a thesaurus of search terms. Not only do they find it guides them as to the preferred terms to use in a subject search on the OPAC, but they find it helps in giving them ideas for alternative terms when they are

refining their search strategy for magazine indexes (such as AUSTGUIDE or SAGE) or when using a search engine on the Internet. *SCIS Subject Headings* is not the only thesaurus located as a reference by the OPAC terminals. We have others also, such as the SAGE Thesaurus for student use. It is not enough just to put a copy out for student use. Students have to be taught its value and how to use it productively. So it becomes another useful element to include in teaching

library-research skills, especially for grade 10 upwards. I encourage Teacher Librarians to consider buying an extra copy of the book version of *SCIS Subject Headings* for use by their students.

David Morris,
College Librarian,
Scotch Oakburn College,
Launceston



Handy Hints

Cataloguing pictures and prints

Did you know that SCIS catalogues pictures and prints? As these items do not have an ISBN Teacher Librarians need to locate the SCIS record number in the SCIS OPAC before they create or upload an order. When applying limits for pictures and prints in the SCIS OPAC, use the term Nonprojected Graphics. This is located under the Medium option. This makes locating the record easier because the SCISWeb search will retrieve resources in this medium only.

Browser downloads

If you wish to change your browser or download the latest version onto your desktop, you can now find links to Netscape and Internet Explorer browsers on our website. You will locate them on the SCISWeb Message Centre page at this address <http://www.curriculum.edu.au/scis/webmsg.htm>.

Recording SCIS record numbers

When your desired catalogue record is located in the SCIS OPAC, highlight the SCIS record number then click on Edit (on the top menu bar) and then Copy. Paste into a word processing document. Continue to add SCIS record numbers to this open document. When you have finished searching, highlight the entire list and Copy and Paste into a new Create Orders box. You can then process the order as normal. (Other alternatives you may prefer to use are noting the SCIS record number on the resource or onto a sticky note to be typed into Create Orders later). The Copy and Paste feature can also be employed for other purposes. For example, at your next SCIS session you may choose to Copy and Paste your Not matched file directly into the Create Orders box so that you can continue to re-order those ISBNs and not have to re-type or re-scan them. (Obviously if you have used your barcode scanner to input those ISBNs it will be simpler to re-scan them).



CC News

1. Welcome to the future ...

Well that is what much advertising and media hype would have us believe 2000 brings. I'm not sure that January 1, 2000 was much different to December 31, 1999, except perhaps for the hangover.

In the first edition of *Connections* last year I indicated that SCIS' 'new age' had already arrived. Last year was the first time that we offered only the SCISWeb and SCISCD products. Subscriptions to SCIS increased, and we anticipate that they will increase again in 2000, with nearly 8,000 schools expected to subscribe to SCIS. In 1999 over 4 million cataloguing records were downloaded from SCISWeb and SCISCD, saving Australian schools in the order of \$30M of Teacher Librarian time. Indications are that many more schools will move from the CD product to the Web, providing real evidence that Australian school libraries are moving strongly into online activity.

In 1999 the National Office for the Information Economy published *A Strategic Framework for the Information Economy—Identifying*

Priorities for Action (December 1998) which stated:

'Our education and training systems must equip all Australians to be enterprising, innovative, adaptable and socially responsible participants in the information economy. ...

For schools, the challenge is to provide all young Australians with the general information technology skills and learning resources that will equip them to take advantage of future study and training opportunities. We need to ensure an 'information rich—information poor' divide between schools does not develop.' (<http://www.noie.gov.au/docs/strategy/strategicframework.html#Title>)

This is, as they say, a big ask. We see our role as supporting Teacher Librarians in this challenging task, and in particular in managing information and learning resources in a very volatile environment.

The SCIS cataloguing records are a central part of this, but we also provide support through related products and by publishing overviews and insights into contemporary developments. Last year *Connections* included articles on Metadata, short reviews of key library

resources, and pointers to numerous relevant Internet sites, as well as support and hints on SCIS products. We will continue to provide you with similar professional support, and seek your suggestions as to issues to be covered.

During 1999 we undertook a major review of the SCIS Subject Headings list, producing the fourth edition of the publication. Over 2,000 schools have placed pre-publication orders, and we expect that most school libraries in Australia will purchase the book during 2000. The review of the Subject Headings will continue this year, including subject areas that require additional headings such as Learning Technologies, Literacy and Numeracy, VET in Schools and Vocational Learning. We have placed on our website a form whereby schools can propose new or amended subject headings. As a companion to the Subject Headings List, the Subject Headings Authority File on disc will be reborn. Full pricing and technical details are not finalised, but the product will be priced significantly lower than the previous version, and may be produced in USMARC format as well as the previous ASCII format. Further details will be in future *Connections*.

CC News (cont.)

The USMARC standard in general, and the SCIS Subject Headings in particular, is just one form of metadata. During 2000 we will continue to consolidate the place of the SCIS Subject Headings in national metadata developments, with the aim of having SCIS Subject Headings recognised as a legitimate schema (or list) for all State, Territory and national metadata standards. We are exploring the development of a metadata support tool that would simplify the application of SCIS Subject Headings to metadata for digital resources.

Trials have been underway to create SCIS catalogue records for selected Internet sites, and to enrich SCIS records with reviews or tables of contents to improve the search and retrieval of resources. Evaluations of these trials are currently underway and the results, and any corresponding changes to SCIS records, will be communicated via *Connections*.

Our team

For 2000 our team remains quite stable (the staff might not be but the team is!). Cherryl Schauder is the national cataloguing and metadata coordinator; Tricia Nathan looks after marketing, customer support and client relations, and Jan Matthews deals with product development and library automation system software. Maxine Campbell left us last year and is replaced by Jenny Baran who brings considerable experience in school libraries and website development to the team. Keith Gove

continues to manage the SCIS Unit within the Information Services function of Curriculum Corporation.

SCIS has been supporting Australian school libraries since 1985, before notions of information economies and digital technologies were widely known. We plan to continue that support well into the second millennium. We hope you have a very satisfying and productive 2000.

Keith Gove
Manager, Information Services
Curriculum Corporation
scisinfo@curriculum.edu.au

2. SCIS subscriptions for 2000

Sign up early in 2000 to take advantage of a full years subscription to SCISWeb and SCISCD.

3. Goods and Services Tax

The Goods and Service Tax, GST, has been added to your Year 2000 subscription renewal. This GST charge relates to that component of your subscription for the period July 1, 2000 to December 31, 2000. The Australian Taxation Office, ATO, have advised that GST charged on products or services acquired in the normal course of business can be claimed as an input credit to be refunded by the ATO.

In order to claim the input credits your organisation will need to obtain an Australian Business Number, ABN, by registering with the

ATO. For further information refer to the ATO website www.taxreform.ato.gov.au.

Please note:

- No action is required by any schools who are part of a government bulk deal. (The GST will be paid by the government directly to Curriculum Corporation).
- All Catholic schools will pay the GST as part of their payment to the state Catholic Education Office when monies are collected.
- Independent schools in ACT, Victoria, Queensland and Western Australia will pay the GST to the State Independent Association when monies are collected.
- The Christian Parent Controlled Schools in ACT, Victoria, Queensland and Western Australia will pay the GST to the Christian Parent Controlled Schools Association when the monies are collected.
- Current 1999 subscribers not involved in a bulk arrangement have had the GST added to their invoice.
- New subscribers for 2000 need to add the GST to the subscription form (10% of total amount for six months only).

4. Video Education Australia

SCIS has undertaken to catalogue all videos distributed by Video Education Australia. To locate and order catalogue records using SCIS record numbers we have placed a link to this list under *What's New* on our website at this address
<http://www.curriculum.edu.au/scis/catalog/web/updat.htm>.

School Libraries and the Knowledge Economy of the 21st Century

Just when we'd become accustomed to living in the Information Age, the Knowledge Age is upon us! 'The knowledge economy', 'knowledge management', 'knowledge work' and 'intellectual capital' are catch-phrases of the new era. How is 'knowledge work' and 'knowledge management' different from what we have always done? Haven't teachers and Teacher Librarians always been 'knowledge workers'? What is our professional role in the new landscape?

The evolution of knowledge management

Knowledge management (KM) is a relatively new field of study, popularised over the past four or five years. KM concerns the effective capture, utilisation and exploitation of human knowledge and expertise for business advantage. It involves planned decisions on how an organisation's 'know-how should be structured, organised, located and utilised' (IBM Consulting Group, cited in Broadbent

1997). While KM builds on earlier foundations (eg change management, diffusion of innovations, strategic information management, organisational learning), it integrates discrete disciplines in fundamentally new ways. Much of the current KM literature exhibits an evangelical fervour for KM's potential in organisational transformation.

In our increasingly global economy, an organisation's success is contingent on its skill

School Libraries and the Knowledge Economy of the 21st Century (cont.)

in monitoring and rapidly adapting to environmental changes, generating innovative solutions, and swiftly producing quality, client-responsive, products and services. During the 1980s, an organisation's use of information technology (IT) was popularly presented as the key to gaining a strategic business advantage over the competition. By the early 1990s, writers such as Strassman (1990) and Keen (1991) were questioning the prevalent management assumption that large IT budgets correlated with competitive gain.

Factors other than the technology were evidently crucial. Hammer & Champy (1993), amongst others, highlighted the need for IT strategic ventures to tackle *total business processes* and not just isolated functions, and recommended radical business process redesign (BPR) projects as the way to maximise organisational performance. Associated with this total business process focus, many significant advances were made in organisational workflow and networking technologies. However, BPR projects experienced high failure rates. Sudden massive downsizing and indiscriminate outsourcing saw crucial skills losses from organisations, and remaining staff over-worked and under-skilled for tasks they were required to perform – with a consequent plummeting of morale in many organisations.

KM was one outgrowth from the mixed success of radical change management programs of the early-to-mid 1990s. People did matter—intellectual capital and not the technology *per se* was the most significant factor in business performance. Knowledge more than the traditional factors of production—land, labour and capital—held the key to business success. The human element needed to be central in any major organisational change program. KM sought to restore the focus on people and learning as vehicles for enhancing organisational learning and business performance. Information technology remains pivotal in KM, but ideally is the tool rather than the primary driver of KM programs. 'Knowledge technologies' are those that facilitate human

interaction and knowledge sharing in ways that promote organisational goals and facilitate organisational learning and innovation. Examples are networking technologies (intranets, Internet), email, electronic discussion groups, collaborative groupware, videoconferencing, electronic workflow technologies and knowledge mapping software.

Knowledge management in schools

Although KM tends to reflect a corporate, 'big business' perspective, its principles can be adapted to public sector organisations, including schools. Certainly governments operating under an economic rationalist philosophy have treated schools as businesses, with an increasing emphasis on a corporate model of governance. Most state governments have placed a priority on the development of IT infrastructures capable of supporting the Internet and multimedia technologies in schools. Such an infrastructure is a necessary pre-requisite for a KM program, but the primary focus of knowledge transfer is the human dimension.

Effective KM programs adopt a holistic organisation-wide perspective, integrating all parts of the organisation and establishing global links. Such programs are directed by senior managers, but involve staff from all levels, and many distinct forms of professional 'knowledge work'. Teacher Librarians possess distinct skills sets that identify them as potential key players in a KM program. Briefly, basic elements of an organisational KM program include:

- analysing, recording and categorising organisational expertise/ competence;
- ensuring that there is an effective IT-based communications infrastructure in place that links staff within the organisation, clients, suppliers and other key stakeholders and the external world;
- developing structures and processes, and establishing forums for sharing knowledge, for training, and research and development; and
- establishing a knowledge culture where people are valued, where teamwork,

shared visions, knowledge exchange and trust are the norm.

Teacher Librarians potentially have much relevant expertise to offer a school-wide KM program.

How will the role of an effective Teacher Librarian in the emergent 'knowledge economy' differ from traditional school library practice?

In considering our professional identity for the twenty-first century knowledge economy, it is important to articulate roles that are *contemporary*, reflecting current organisational realities and information and knowledge technologies, but also roles that are *concordant* with our distinctive professional background and training. While there is increasing emphasis on multi-skilling and generic work skills (eg written and oral communication skills, IT literacy, personal management skills) across the workforce, we need to recognise our distinctive professional expertise and to actively promote and demonstrate that expertise within our schools. Many other professionals, as well as students, have a very limited and dated view of a Teacher Librarian's job. Unfortunately, all too often Teacher Librarians have failed to educate others in their organisations about their professional expertise and have passively accepted, and reinforced, constrained traditional views. Perhaps this is due to a natural reticence towards self-promotion, or to an assumption that others already know. Whatever the cause, reprogramming of traditional mindsets is essential if the profession is to survive—and thrive—in the knowledge age.

In the knowledge economy, very narrow functional specifications are giving way to more expansive professional roles. School libraries set up as stand-alone, self-contained edifices are under threat. The future lies in *networking* (in both the interpersonal and technological senses of the term), and being an active node within a web of nodes that permeate the organisation and link to relevant external sources locally and globally. Let's explore what this means in the school context.

School Libraries and the Knowledge Economy of the 21st Century (cont.)

Education of students is the 'core business' of schools, reflected in various ways in different school vision and mission statements. *All* professionals within schools need to interpret their distinctive professional roles within the context of this educational mission. Teacher Librarians must redefine their roles, ensuring that *all* their activities are centred on primary educational goals, and make a significant contribution to the educational process within the school. Any roles that do not contribute directly to the school's educational mission need to be reconsidered, and in most cases pruned. This is an essential first step towards ensuring that the library—and the Teacher Librarian—are central and not peripheral in school networks. For example, many of the traditional 'backroom' technical services activities in school libraries are better outsourced to specialist agencies such as SCIS at Curriculum Corporation, library suppliers or booksellers offering add-on services. Such vendors have high-level specialist expertise and quality control usually not available at the local level, and due to economies of scale can generally offer services more economically. Also, networking with other schools to facilitate resource sharing is a significant benefit of such arrangements. More and more, identifying good suppliers, building links and developing effective ongoing working relationships is a feature of organisations operating and thriving in the knowledge economy. The primary benefit of such outsourcing arrangements is that the Teacher Librarian can focus her/his work time on the 'core business', ie the education of students, and direct interaction with students and staff, maximising the potential for excellent performance in that role. A Teacher Librarian's professional success correlates more with being effectively integrated into wider organisational processes of managing information and knowledge processes, than with say, having developed an exemplary school library catalogue.

Libraries have traditionally been warehouses of information resources, and Librarians the custodians of those resources, with most of their work focused on various aspects of the processes of acquiring, processing and managing and controlling access to collections. In the knowledge economy, a very

different ethos prevails. The warehouse function of libraries is rapidly eroding, with increasing emphasis on remote electronic resources. The Internet and the increasing sophistication of its underlying technologies (eg developments in natural language query searching) is reducing the need for a Librarian as an intermediary between information and the client.

What, then, are the emergent roles for Teacher Librarians?

Davenport and Prusak (1993, in Matarazzo & Connolly 1999) explored alternatives to the outmoded warehouse model, identifying two alternative models: what they called the 'expertise centre' and 'the network'. The expertise centre is a positive development over the warehouse model of library service, in that Librarians focus on clients, and promote their specialist expertise in providing information services and advice within a particular subject field. However, the authors claim that this service model does not go far enough—it neglects 'the fact that most of the people in an organisation with subject-matter expertise are not information professionals' (p.219). So much of an organisation's knowledge base resides in the heads of its employees. A preferable model of information service is 'the network'. This model adopts a much more expansive view, in that information is not contained within one information centre—it is pervasive, all encompassing. Its primary objective is to connect information providers and users of information regardless of where they are physically located, or the form in which they are contained (be they physical resources, electronic resources accessed via computer-based multi-media networks or human sources).

Davenport and Prusak's network model offers some valuable pointers for Teacher Librarians exploring the issue of emergent roles for their profession. Rather than warehouse custodians, or even simple providers of centralised expertise, Teacher Librarians become: 'overseers of a multi-media network. They must be concerned with structure and quality of the content that goes out over the network (programming), in what form it is distributed (media selection), to what audience it is

directed (broadcasting vs. narrowcasting), and how the receiver's behaviour changes in response to the content . . . [Their role] should be to encourage wide participation in information creation and dissemination. Broadly speaking, the role of the information professional becomes the establishment of connections between those who have information, and those who want it. The library itself must be viewed as a virtual information network.' (Davenport & Prusak, p. 221)

The KM literature offers many further insights into changing roles for Teacher Librarians that cannot be fully explored in this brief article. Tapping into human expertise networks within and outside the school is one critical dimension. Expertise databases and 'yellow pages' directories can be compiled. However, a fully integrated information service would see more 'seamless' links between the user and the information sources. In response to a query, a user may be provided with a list of relevant physical and electronic information sources, links to full text of relevant documents, along with names and email links to people who are prepared to answer queries in a particular field. 'Knowledge mapping' is another area where Teacher Librarians have the potential to utilise their professional skills.

There are many exciting opportunities for Teacher Librarians in the new knowledge economy. The challenge is to identify and to grasp those opportunities before other professional groups 'claim the turf'. There is no place for dawdlers in this new domain.

Kerry Tanner

Kerry Tanner was formerly a Senior Lecturer in the Department of Information Management, RMIT University. In the 1970s Kerry was involved in the early establishment of Secondary Central Cataloguing, a forerunner of ASCIS/SCIS, and she taught Teacher Librarians in the (then) LAA Registration subjects. Kerry is currently working on a PhD in the area of Knowledge Management in the School of Information Management and Systems, Monash University.

Cache: n., 1: a hiding place. 2: a secret store

When SCIS receives help desk enquiries, we often alert SCISWeb users to the issue of caching, a complex and often perplexing facility employed to improve internet performance. The following inCite article helps to clarify some of the issues involved.

The other day I was asked why ALIANet, the website, does not bother to have counters anywhere across the plethora of pages offered. The answer is very simple (they don't work), but the question did lead me to delve more deeply into the reason why: caching. It also led me to consider the issue of copyright, which is mercilessly sandwiched in the middle of it all.

Have you noticed how slowly the first page you visit from ALIANet loads? Have you noticed how much faster subsequent pages load? And have you noticed that when you revisit the site a short time later it loads infinitely faster, and yet a page from a site that you have never visited before loads much slower than anticipated, even though it may have no graphics to slow it down?

This activity is all a direct result of caching, either on your own computer or elsewhere, or a combination of both. Caching is a weapon used to battle one of the biggest enemies known to the internet: lack of bandwidth. So how does it work? Every website address specifies or implies a unique reference point, and opening a web browser and entering the address will force a request to be made to the web server containing that URL. That request is in the form of 'please send me a copy of the page in question so that I can display it on screen at this end' – and if the host computer (web server) is happy to comply, a copy is sent to the client computer for display and subsequent storage. At this stage, those with concerns over copyright are probably apoplectic – but we will press on for now.

Client caching

The client machine's web browser is generally set (by default) to store a copy of the page for that entire 'session' – defined as the period in which the browser application is running. On the other hand, it is entirely possible for the browser to be set to store the page indefinitely (even through restarts and exits/quits – and

thus not requiring any further transmissions), or to not store the page at all (requiring a full retransmission of the page at a subsequent request).

The advantage in storing a page throughout a session is obvious: there is generally no need to download an entire page and its contents more than once every session, unless the page in question changes frequently. For example the ALIANet 'what's new' page changes frequently, and so to assist those who visit the page, there is code attached within the page which forces a reload of the page every 1044 seconds (let's not get sidetracked into asking 'why this number?'). However, most website pages do not contain code to reload or refresh the data content. By not forcing a reload, bandwidth is preserved for all users since less requests are made to transmit data repeatedly across a finite resource – the 'pipes' of the internet.

Proxy server caching

There is another form of caching that demonstrates why web access counters are practically meaningless – proxy caching. This is becoming popular as a form of preserving bandwidth, and is used to minimise data traffic by and within government, corporations, businesses and educational institutions.

Data traffic costs money – internet telecommunications providers charge per byte, usually for incoming data. Here is a typical scenario: the National Library of Australia (NLA) has many members of staff who are ALIA members – and many of them like to keep abreast of what is happening within the Association by browsing ALIANet's homepage each morning. This could result in a lot of traffic, with subsequent high charges for incoming data, multiplied by the number of people viewing the site.

To minimise costs, and to increase the speed of the download, a proxy server can take the first request and store a copy of the ALIANet home page locally. Thus, every subsequent request by other NLA staffers will draw upon the recently-stored page sitting on the NLA proxy server, rather than download time-consuming and expensive copies. Congestion of the pipes of the internet is reduced, and caching also decreases the amount of processor cycles

required on the host machine, thus allowing the host machine to deliver documents to other users. In short, everyone wins – in theory. However, some proxy servers do not retrieve the most up-to-date information often enough. Thus, caching causes websites to lose control of their content, and the timeliness of that content. This can have serious ramifications on share-trading or auction sites, less so on more static information sites. It is possible for host server pages to be coded in a way that forces a frequent refresh of data, but this can be abused to the extent that pages are needlessly retransmitted (wasting further bandwidth).

Page counters

Why does caching wreak havoc on page counters? And where can it go wrong? Page counters calculate 'hits' on the basis of the number of requests made for a document, and the page count itself is only incremented locally. If a page is copied and stored off-site (in a proxy server), then the page count becomes meaningless. Ten thousand users may view the page through a proxy server and the original page will not reflect this number.

Copyright infringement – or technological solution?

Then there is the issue of copyright – and what constitutes copyright infringement in this context. Is caching an example of copyright infringement? Almost undeniably so, according to current definitions. Yet caching is a technological solution to a pre-existing technical problem, without which the internet would surely shrivel up and die – or be choked with endless page requests.

Reminder: SCIS recommends that you set the options in your browser software to Once per session (Netscape) or Every time you Start (Internet Explorer).

Ivan Trundle, ALIA Manager, systems and publishing.

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Internetting Corner

These sites can be easily accessed on the Internet via the links found on the Curriculum Corporation's Connections site for Issue No. 32.

<http://www.curriculum.edu.au/scis/connect/connect.htm>

The Abacus: index

<http://www.ee.ryerson.ca:8080/~elf/abacus/>
Fascinating details of the construction, history and application of the abacus are covered here. Complete plans for building an abacus using LEGO blocks could form the basis of a creative lesson. SCIS 990154

Arctic Circle

<http://arcticcircle.uconn.edu/arcticcircle/>
Vital aspects of the Arctic region are investigated, particularly the environment and the sustainability of natural resources. Extensive coverage is also given to the history, culture and views of the indigenous Arctic peoples. SCIS 990160

Australian athlete profiles

<http://www.ausport.gov.au/promenu.html>
Background information on athletes from a variety of sports is available from this site which emanates from the Australian Sports Commission. Both Olympic and non-Olympic sports are included, with a range from archery to yachting. SCIS 990143

Awesome Library – K-12 education directory

<http://www.neat-schoolhouse.org/awesome.html>
With over 14 000 reviewed resources for educationalists this searchable site is useful for ferreting out those hard to find resources for particular lessons or simply browsing the well organised sub sections. SCIS 990138

BBC Schools Online

<http://www.bbc.co.uk/education/schools/>
Aimed at students, teachers and parents this encompassing UK site includes primary and secondary curriculum material, news and resources. At the time of review, Michael Rosen's *Star Poems* were featured. SCIS 990098

Bright Sparcs

<http://www.asap.unimelb.edu.au/bsparcs/>
Raising awareness of Australia's scientific, medical and technological heritage is the basis for this site. Features are an index, guide for teachers, links and a bibliography. SCIS 990140

The Common Good

<http://www.abc.net.au/civics/>
Teachers introducing Civics and Citizenship should investigate the resources and links available on this website, jointly developed by the Australian Broadcasting Corporation, the British Council (Australia) and the NSW Department of Education and Training. SCIS 990151

Gifted Education

<http://www.austega.com/gifted/>
A comprehensive Australian jump site dealing with most aspects of teaching or parenting gifted children. Of particular relevance for Teacher Librarians are the links to recommended print and software bibliographies and reviews. SCIS 990146

Ippy Online

<http://www.ippyonline.gov.au/home.asp>
IP Australia has developed this engaging site to promote the concept, meaning and understanding of intellectual property to students. Teachers are catered for with case studies, fact sheets and a bibliography. SCIS 990109

Laura Ingalls Wilder, Frontier Girl

http://ourworld.compuserve.com/homepages/p_greetham/ingalls/frame.html
A wealth of material on the popular author Laura Ingalls Wilder is available here. Of particular interest is the extensive background information and photos of her family, friends and houses. The site also contains puzzles, selections of music from the period and family documents. SCIS 990124

LibrarySpot – encyclopedias, maps, libraries and much more

<http://www.libraryspot.com/>
Teacher Librarians will find a plethora of practical links to library and reference sites.

Links include specialist libraries, all manner of reference material, quotations, journals, news and collections of lists. Definitely one to bookmark. SCIS 990164

NAI: transportation records

<http://www.nationalarchives.ie/search01.html>
The National Archives of Ireland have made available online searching of their remaining records of convicts transported from Ireland during the period 1788-1868. Records of convicts' families transported as free settlers may also be found. SCIS 990134

Polymer banknotes

http://www.rba.gov.au/poly/po_ind.html
A subsection of the larger Reserve Bank of Australia's home page, this site contains information regarding the history of Australia's currency notes and the introduction of the technology for printing polymer bank notes. SCIS 990115

Univ of Exeter: Centre for Innovation in Mathematics Teaching

<http://www.ex.ac.uk/education/cimt/>
Primary and secondary mathematics teachers can use this material to enhance their curriculums with innovative, absorbing puzzles, games and competitions. Research material, reports, databanks and links to additional sites are available. SCIS 990148

Welcome to Interactive News for Kids

<http://ink.news.com.au/>
Teachers who are interested in having their students write and publish an online 'newspaper' should investigate this engrossing site. Only basic computer knowledge is needed as the web-based software prompts users to carry out the necessary steps, and background notes and tips help make the tasks achievable. SCIS 990157

Reviewed by Nigel Paull
paull@turboweb.net.au

The Internet sites abstracted in Internetting Corner are often of a professional nature and should be initially viewed by teachers and Teacher Librarians to determine suitability for students. Remember the links, content and even the address of a site may change quickly.



Reviews



book



CD-ROM



video



report



A Survival Guide to the Internet for Teachers

Publisher: Curriculum Resources, South Australian Department for Education and Children's Services, 1997

RRP: \$84.95

This is a resource that every school should have for its teachers! The aim of this CD-ROM is to provide teachers with help in understanding what the Internet and on-line services are, and illustrate how they can use this tool as a resource for both professional development and enhancing the curriculum.

The CD-ROM is well designed. The graphics are clear and, combined with the spoken instructions; the program is very user friendly. The main menu has five options: On-line services, Guided Tour, Case studies, Tutorials and Exit; arranged around the outline of a hand.

One tends to choose the option on the left first but I suggest users start with the guided-tour as this gives an overview of the CD-ROM, explains the navigation control panel which is constant throughout the program and then introduces each section of the program.

A Guide to the Internet and on-line services: This explains the what, why, where and how. It includes how Internet services work, getting connected and the benefits to teachers.

Case Studies: This gives details of how teachers are using on-line services to facilitate student learning in both primary and secondary schools. Each case study contains details about the year level of students, learning areas covered and the on-line services and hardware used, as well as the content, task, rationale, student work and evaluation. Video clips are used in many of these case studies. Geography teachers will find 'Expedition Icebound' and 'Earthquakes on-line' of interest.

Tutorials: This explains how to access and use various services. Teachers can learn how to navigate and search for sites on the World Wide Web and access news groups and send email using Netscape Navigator. Instructions

are provided using the cursor and highlighting on the screen and menu together with a commentary.

This is an excellent resource as it allows teachers (and others) to learn how to use the Internet and on-line services at their own pace. Tutorials are short so they can be fitted in when a teacher has a 'spare' 10 - 15 minutes. The tutorials are well structured and able to be accessed with a minimum of computer skills. Tutorial notes are stored on the CD-ROM and can be printed for future reference. This is a must for the Professional Development library of any school where teachers are learning to use the Internet and on-line services.

Reviewed by Sharon Jones

Distance Education Centre, Victoria

** Interactions, Vol 26 No.1, March 1998*

Available from:

Curriculum Corporation

Tel: (03) 9207 9600

Fax: (03) 9639 1616

Email: sales@curriculum.edu.au

Indonesia Kaleidoscope

Publisher: Curriculum Corporation

ISBN: 1 86366 383 5

RRP: \$34.95

Aimed at middle to upper primary teachers *Indonesia Kaleidoscope* is a terrific resource, many aspects of which have the potential to be adapted for use in the junior levels of secondary schools.

The book is very well arranged in six chapters, each relating to an area of Indonesia: Irian Jaya, Bali, Sulawesi, Kalimantan, Java and Sumatra. These chapters focus on a folktale discussing an important aspect of Indonesian life related to these places and a 'Fact File' providing additional information. Student activities then follow through with the themes raised in the folktales and 'Fact Files'.

The chapter on Sulawesi, for example, looks at a folktale explaining the origins of rice. The 'Fact File' develops some of the issues raised in the folktale by providing information about

the importance and practicalities of rice growing. The student activities range from mapping rice growing areas, word searches, producing rice flour, batik and participating in traditional rice growing songs and dances. The range of student activities in each section is a very impressive element of this book.

I was particularly impressed with the excellent maps and activities which worked together to give a sense of the diversity of the regions in Indonesia, both geographically and culturally.

A useful bibliography has also been included. This book would be an ideal resource for teachers developing activities for an Asian History Week/Day at schools as well as developing interesting classroom activities.

Reviewed by Marita Cullen, HTAV AGORA, 1999 pp54

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What's New?

The following are some interesting websites which may be of particular interest to Teacher Librarians.

The first site is
<http://www.telerama.com/~mundie/CyberDewey/CyberDewey.html>.

This site lists internet sites organised using Dewey Decimal Classification numbers. The front page displays the one hundred divisions, each of which is displayed on a subpage. The author devised CyberDewey as a way to keep track of her own list of links, then expanded it to include pointers into BUBL, Yahoo!, and the World-Wide Web Virtual Library.

The next site is Ex Libris, a weekly e-zine for librarians. It is located at
<http://marylaine.com/exlibris/archive.html>. This site contains many valuable links to interesting sites relevant to librarians as well as back issues of the e-zine.

Finally, SCIS has created a link to ABC Educational TV programs on our own website under What's New
<http://www.curriculum.edu.au/scis/catalog/abc/video.htm>. These are for ABC TV programs that have been catalogued and added to the SCIS database. The television programs Artzone, Hallo aus Berlin, Natural inventions, Numbers

count, Puzzle maths, Shape, shape, shape, Sparkey and the bugs, and Visions of democracy have been catalogued and records added to the SCIS database for them. Each of the series has been given a SCIS number for the whole series, as well as a number for each individual program in the series. The provision of a whole series record and a record for each episode allows for the programs in a series to be located on the one tape or tapes or for each episode to be located on different tapes. The records for each episode and the series have complete cataloguing details.



Cataloguing News

SCIS Subject Headings has a new look!

The SCIS cataloguing agencies and the unit at Curriculum Corporation worked around the clock to complete work on *SCIS Subject Headings Fourth Edition*. This newly revised tool was released in November 1999.

Work on a revision such as this is a painstaking task. The list had to be first extracted from the Voyager database, and then each entry had to be manipulated to conform to the newly chosen format. The addition of new terms to the list and the deletion of dated terms is normally undertaken by means of a process of research paper preparation by individual agencies, followed by teleconferences at which consensus on each change is sought. However, in recent months, to meet the publication deadline, emails between the agencies have been flying backwards and forwards, with many heated debates and discussions about individual headings and subject indexing policies.

The new format uses the symbols USE/UF, BT, NT and RT which replace the former *x*, *See*, *See also* and *xx*. A footer on each page explains the meanings of these new symbols.

With this new format, the references to and from associated allowed headings are precisely labelled as Broader, Narrower or Related. While it has been possible to check and review a percentage of these with respect to the appropriateness of the given hierarchies, the staff involved accepts that the refining of these relationships will be an ongoing task.

Another laborious task in a revision process such as this is the careful checking of the reciprocal references for both the USE references and for each of the Broader, Narrower and Related terms under each of the approximately 6,000 allowed headings. The richness of the English language ensures that there are many different ways of expressing a given concept and the number of possible associations between concepts is enormous. A heading such as *Cookery* in the list has eight synonymous 'non-allowed' headings from which references need to be made to *Cookery*; under the heading *Psychology 45* narrower headings are listed. Each of these has to be checked in its alphabetically filed position to make sure that it in its turn has *Psychology* as its broader term. A key feature of this edition has been the revision of the headings for Aboriginal

peoples. This has been undertaken in consultation with the Aboriginal Studies Consultants in each state, and the NSW Aboriginal Education Consultative Group. The heading *Aborigines* has been replaced by the more acceptable phrase *Aboriginal peoples*. New headings include *Aboriginal communities*, *Aboriginal law*, *Aboriginal peoples* – *Dreaming* and *Aboriginal resistance*.

Other areas for which new headings have been developed include information technology, the Internet, and sound and video recordings. In addition some dated headings have been replaced, for example, *Eskimos* has been replaced by *Inuit*, and *Negroes* by *Blacks*. Headings in the area of popular music have been revised and the standard subdivision *History* may now be further subdivided by century.

With respect to headings to be devised and added by the cataloguer, policy in the new edition is to provide at least one example in each allowable category, for example, *Nolan, Sidney, Sir* is given as an example of *Painters, Australian*; *Bus drivers* and *Law* are given as an example of *careers* and *I.B.M. (Computer)* as an example of *Computers*. The list contains a

large number of country and place names. This is an area that requires ongoing revision and it is felt to be useful to include as many of these as possible.

In the new edition many notes have been reworded and clarified. For example, at Biography, guidelines for the use of the heading have been considerably expanded. As in the past, the Introduction includes detailed explanations of the symbols and conventions used. Listings are provided of new, replaced and cancelled headings, categories for which headings are to be added by the cataloguer, and standard subdivisions.

As with the third edition the filing of the list is generally alphabetically word by word, with hyphenated words filed as if they were two separate words. However in the fourth edition a heading and all of its subdivisions (i.e. headings after the long dash) are filed together. Inverted and phrase headings follow the heading and its subdivisions, but are interfiled alphabetically as before. This arrangement will make it easier to identify those headings which have a pattern of subdivisions that may be applied to other similar headings, for example the subdivisions at the headings Bible and Shakespeare, William. This filing will not affect the filing in the library catalogue.

This edition has established the new format and made a number of important revisions. It provides a snap shot of headings at a given point in time, but many areas have been signalled for ongoing and further review. Over time the list will benefit enormously from ever-increasing dialogue between the cataloguing agencies and Teacher Librarians. This two-way communication process is steadily being enhanced by information technologies both in schools and in the SCIS agencies. The dialogue will help to ensure that the list serves the needs of Teacher Librarians and students in our fast-changing educational environment.

Cherryl Schauder, SCIS Cataloguing Coordinator

SCIS Subject Headings

FOURTH EDITION

Compiled by Schools Catalogue Information Service, Australia

RRP \$90.00

pp 559

Revised SCIS Subject Headings Fourth edition

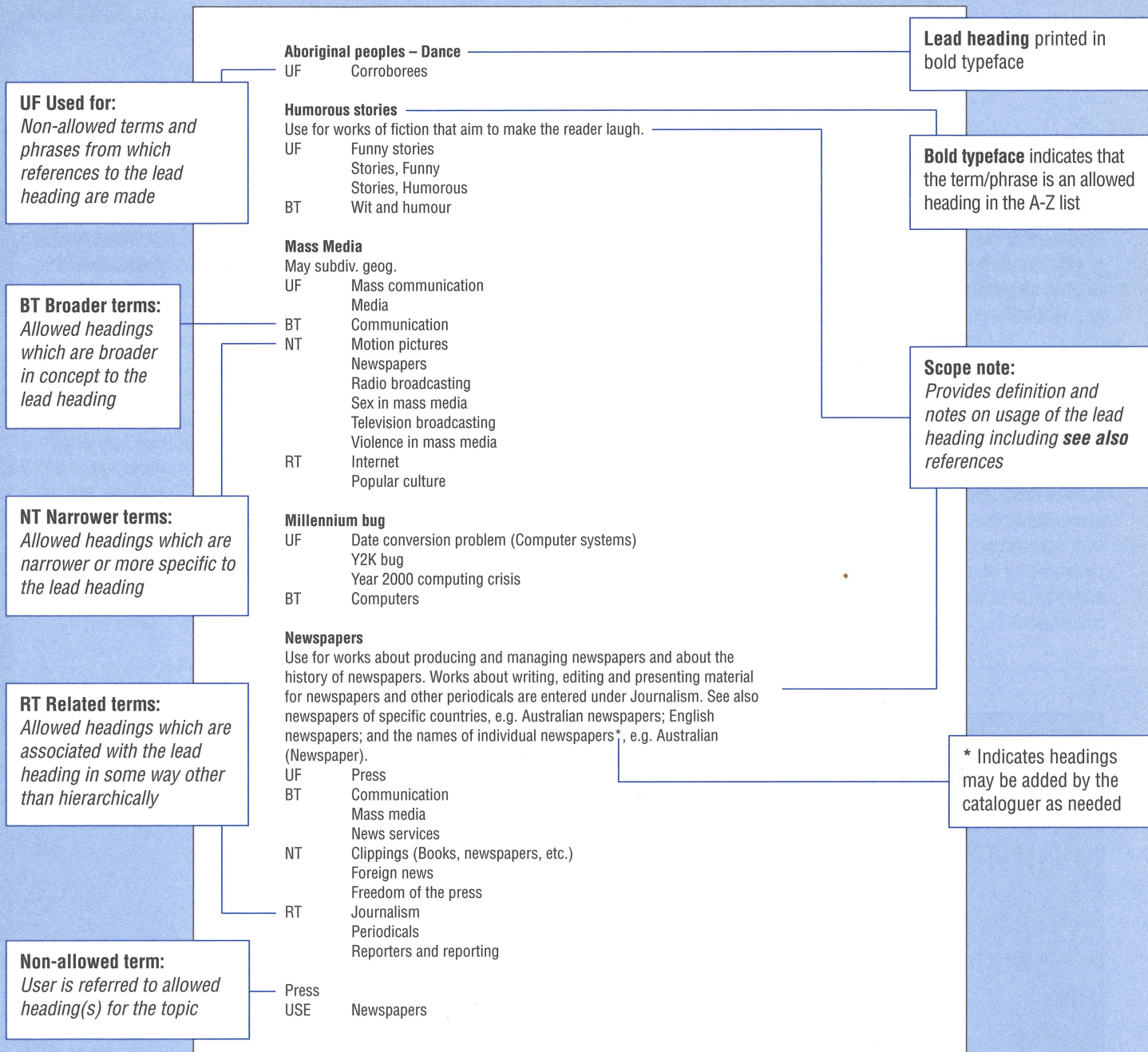
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SCIS Subject Headings is a list of allowed and non-allowed terms and phrases for use in Australian school library catalogues. This fourth edition incorporates all amendments since the previous edition and is presented in a new format that conforms to international indexing approaches.

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