INFORMATION LITERACY

IN A GOVERNMENT DEPARTMENT

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ABSTRACT

With the increasing availability of information products at our clients' desktops the Information and Library Services' staff of New South Wales Agriculture have recognised the need to provide our clients with the skills they need to become 'information literate'. This paper outlines the introduction of our Information Skills Program and highlights some of the issues that have arisen.

INTRODUCTION

Since 1995, the NSW Agriculture Information and Library Service has shifted its information services and products into the online environment. These products and services are delivered to the clients' desktops via the corporate intranet, email services and products such as WinspirsTM. The introduction of new services and products was accompanied by training, usually on one-to-one informal basis, and the development of training manuals or tip sheets.

In 2002 however, we had to acknowledge that while we had been introducing new information services and products we had not been able to maintain the level of training required. Many clients did not have the necessary skills to either use these services at a proficient level to locate information, or to evaluate and use the information that they were receiving. Like most employees in today's information environment, our staff are inundated with information. "Employees ..., particularly knowledge workers, are faced with information overload, have difficulty finding what they need quickly and efficiently, and are struggling with issues of quality and credibility with the information they do find" (O'Sullivan 2002). With the desktop availability of many databases our clients in NSW Agriculture are running their own literature searches and trying to effectively manage the references they retrieve. At the same time many are also receiving via email the results of current awareness alerts, electronic newsletters and other communications, not to mention the information available on the Internet.

It was recognised that a more formalised approach to information literacy training was needed. This would provide our clients with not only the skills needed to utilise specific products but also generic concepts and skills in information use, searching and access that would allow them to manage information efficiently.

LITERATURE REVIEW

Information literacy in the workplace

The Australian Library and Information Society (ALIA) has defined 'information literacy' as the ability to "identify, locate, access, evaluate and apply the needed information"(ALIA 2001). As Bruce (1999 p.46) has noted, information literacy is "about peoples' ability to operate effectively in an information society". It involves

an appreciation of the need for information, the attainment of the skills to locate, organise, evaluate, and effectively use the information to solve problems or create new knowledge. Although the meaning of the term 'information literacy' may be debatable there is no doubt that the problem of dealing with information overload provides a challenge for any workplace.

O'Sullivan's (2002) investigation into information literacy in the corporate sector found that the term was rarely if ever used. She concluded that while the principles and practices of information literacy were gaining some recognition there has not been widespread recognition of their importance as a "core competency within organisations." Winterman, Skelton and Abel (2003) suggests that one of the reasons for the slow development of information literacy in the workplace is the term itself which many in the corporate sector see as inferring that workers have poor basic literacy skills. For this reason most workplaces begin by renaming the information literacy program, for example, the "Working Smarter" program introduced by Improvement and Development Agency (IDeA), (Winterman, Skelton and Abel 2003), and the Information Resources Training described by Secker (2002). Winterman, Skelton and Abel (2003 p. 39) conclude that "aspects of information literacy are found in many corporate training programs although they are seldom labelled as such".

Candy (1998) identified a number of trends from his study of information literacy in professional practice. He found that information literacy skills needed in the workplace are different from those needed in formal study and that it is responsibility of both the individual and the organisation to maintain and update these skills. Winterman, Skelton and Abel (2003) concluded that the responsibility for the day-to-day use and management of information is being transferred to employees. At the same time they found that the role of the information professional within organisations is changing from provider to facilitator. Information professionals are concentrating more on developing resources and training programs to support individuals' information management, and at the same time meeting the organisation's responsibility to provide training (Winterman, Skelton and Abel, 2003).

Finally, information literacy in the workplace must also be based around the principles of adult learning. Both Secker (2002) and O'Sullivan (2001) found that:

- Learning should be immediately relevant to a learner's (work) situation. Where possible the search examples used should be relevant to the clients research/work interests. When starting a new research project, a scientist will be collecting and wanting to manage large amounts of references and this is an ideal time to provide training in information evaluation and using bibliographic management software.
- Adults have individual learning styles. In a formal training setting, a mixture of theory, demonstrations, hands on practice and discussion time should be used. Some clients feel confident that they can use new products without any training as they like to attempt new things alone, only asking for help as a last resort. Others like to have some training first.
- Adults prefer to be involved in the process and to be responsible for their own learning. Library clients tend to ask for training when they need it, but not in anticipation of using the skills.

Adults like to know why they are learning something. In the workplace they
do not have time to waste and will not become involved in training unless they
can see the value of it to their work

NSW AGRICULTURE'S INFORMATION SKILLS PROGRAM

Organisation background¹

NSW Agriculture is a major research, regulatory and advisory organisation providing services and products to the agricultural industries and the rural community of NSW. There are over 1500 fulltime staff located across more than 80 different offices and research centres throughout NSW. All staff, at even the most remote locations, have access to the Intranet based services.

The NSW Agriculture Information and Library Service is a decentralised service consisting of eight regional libraries, and a central unit providing network and statewide services. Our clients include advisory officers such as district agronomists; technical officers and assistants working on specific projects, regulatory officers, economists, biometricians, engineers, veterinarians, college lecturers, administrative staff, pathologists, irrigation officers, horticulturalists, and even agricultural college students. Each library provides services to a region but essentially act independently i.e. there is no centralised document delivery, book purchasing or accessioning. This model does allow a high level of client service with each of the 80 offices or research stations visited at least once a year.

1 On the 1 July 2004, NSW Agriculture will be amalgamating with three other state government departments – State Forests, NSW Fisheries and NSW Department of Mineral Resources – to form the NSW Department of Primary Industries.

Information Skills Program

The term "information skills", rather than information literacy, was chosen to describe this program. An audit of what we needed and what we had was undertaken in September 2002. We were able to identify what training our clients wanted by using responses from a Library Services client survey carried out in 2000 by Libraries Alive. The results of the survey, which used both questionnaires and focus groups, confirmed the importance to our clients of key services such as document delivery, but also provided recommendations that focussed on aspects of client training. Additionally librarians were also able to provide suggestions from their personal experience with clients.

Three main areas of training were identified:

- 1) Training for specific products and services whether they are new or as refresher (Eg the library catalogue, statistics products and ProCite. (a bibliographic management software program widely used throughout NSW Agriculture).
- 2) Training in generic searching skills, the skills and concepts needed for information management. As many have noted training in specific databases does not constitute information literacy training. The underlying principle of information literacy training is to provide techniques that allow clients to

remain information competent in a constantly changing information environment . The commonalities of the many information products, such as phrase searching and Boolean operators are covered in our training. Also the need to consult the help function of each new information product is emphasised. Other topics included in our program are copyright, citing information, dealing with information overload and evaluating information.

3) Development of a staff induction course on what information products are available and how to use them.

Other key points identified were:

- Training information and tutorials on library products to be added to the library web site.
- Maintain the emphasis on one-to-one or small group training as the most effective means of improving the productivity of individual information seekers.
- Support clients in use of web browsers, office tools and web searching. (These are skills clients require to effectively seek information.)

Secondly our audit identified what training courses or session outlines already existed. These were then prioritised for updating, and then repackaging under the Information Skills Program banner. Standardising the session outlines has provided consistency in presentation and provided a framework for the development of new outlines. The sessions range from a formal daylong course to 30-minute seminar training notes. Each short training session is being developed so that it can be presented individually (up to 30 minutes) or they can be grouped together to create a half or full day course. Even in a one–to-one informal situation, the training notes help keep the trainer focused on the subject as well as ensure key points are covered (Appendix 1).

We then began the process of identifying what training sessions needed to be created. These were prioritised according to perceived need and how easily we could develop the course outline. Session plans were allocated to individual staff according to their personal interest in the topic. Based on demand as identified in the library survey, an immediate priority was the development of a formal full day course for ProCite. This course is listed in the Department's training calendar and run frequently throughout the year based on demand. Training is held at different sites and all the librarians are involved as trainers. A certificate of attainment is provided at the end. A three-hour induction course to library services was developed for new staff and covers in brief the full range of library services and products. It is listed in the Department's Professional Officers training course list, but is available to all new staff.

The remaining Information Skills Program session plans have been developed for 30-minute training blocks. Our current list includes:

- Dealing with information overload
- Understanding journal impact factors
- How to search Current Contents
- Using the library catalogue
- Finding agricultural statistics (primarily focusing on our statistics database, web pages and online documents on our library web site)
- Citing electronic information

- How to find information on the library web site
- How to use Science Direct

Other session plans under development include

- Evaluating information
- Using search engines
- Generic searching skills for online information
- Using ejournals
- Keeping up with new information
- Conducting literature searches
- Copyright

These training programs are presented informally when the opportunity arises, for example when clients ask for training or new staff are being inducted. Library staff often present short training sessions at morning tea or lunch. For example, during this years' Library and Information Week sessions included information overload, journal impact factors and the library catalogue (Appendix 2).

We have found the same situation noted by MaryAnn Secker (2002) in her account of information literacy training at CSIRO. Our clients have limited time available for training so regular timetabling of courses is not always effective. We have found that even when staff have indicated a need for training, by the time a course is scheduled other commitments have taken precedence. Informal one-to-one or small group training has been found to be very effective and allows us to respond to clients training needs when they request it. Lack of time to practice what they have learned also results in a lot or refresher training. Training opportunities often occur informally over phone, and training tips and links can be included on our library newsletter and intranet headlines.

Library Staff training

As a companion to client training there was a need to identify and provide appropriate training for all library staff. A bare minimum of basic skills were identified, including using PowerPoint[®], creating accompanying web pages, presentation skills, and practical skills such as the setting up laptops, data projectors and internet access at remote offices. Not all sites have conference rooms with complete facilities but an adequately sized room with a blank wall is sufficient to hold an informal training session for a group.

Library staff have been encouraged to undertake the Certificate IV in Assessment and Workplace Training so that they have the skills and qualifications necessary to develop, deliver and assess training sessions. Most staff have completed the Training Small Groups module while two librarians hold the full Certificate.

Promotion of Information Skills Program

While the role of "marketing officer" had existed for the library web site since 1999, this role was formalised in 2003 with wider responsibilities. We have developed a marketing plan with a specific strategy for the Information Skills Program. A flyer to promote our Information Skills Program has been developed and can be distributed to staff either in print or digital format (Appendix 3). In addition to Australian Library and Information Week and other appropriate occasions such as Science Week, library staff are also encouraged to hold one training session per month. Many of the research centres have regular lunchtime sessions where any staff member is encouraged to present their work, and our information skills sessions fit into these programs. While only Procite. training can be included in the Department's training calendar, which is distributed to all staff members, our lunch time sessions and other similar events can be included on the online events calendar on the Department's intranet site.

The Information Skills Program has its own web page on the library web site with links to the supporting web pages (Appendix 4), and in our library staff section on the library web site (an area where library staff working documents and web pages are added), the flyers, PowerPoint files, training session outlines and other accompanying web pages and documents are kept for instant updating and access for all library staff.

Evaluation

Evaluation helps to identify areas for improvement in the course. Useful evaluation targets the aims of the training and gathers information to improve the training materials, learning outcomes and success of supporting web pages and documents etc.

Formal evaluation is limited to the ProCite. training course that has a standard training evaluation form used by the Department for all their courses. We also conduct our own evaluation three months after the training session (Appendix 5). The library induction course for new staff is only evaluated at the request of the client if they wish to receive formal recognition of the entire professional officers induction course.

Within the next six months we intend starting to evaluate our short training sessions by either using a short evaluation print form or email message or simply ask a couple of short questions delivered at the end of each training session requesting suggestions and feedback regarding content and delivery. The latter may be a more viable option as these are informal, relaxed sessions, and evaluation has to be carefully planned so that it is not onerous on the participants.

Support from management

The introduction of a formalised Information Skills Program is one facet of our continuing endeavour to keep a high profile in our department as proving our worth in these times of budget cuts and amalgamations is always a high priority. We are a proactive library service that tries to take every opportunity to integrate ourselves into other programs, such as Education and Training, to respond to client requests, to maintain high level of client interaction through our personal visits, and obviously to maintain the impetus to always provide the best library service possible for our clients. We are fortunate to receive support from our senior management both in terms of encouragement and also financially in terms of training and attending conferences.

CONCLUSION

In order for our staff in NSW Agriculture to cope with the large amounts of information products and services available today it is essential for them to become information literate. Information and Library Services have attempted to meet this need through the introduction of the Information Skills Program. This program which is based on adult education principles has attempted to meet the identified training requirements of staff. Most of the training takes place on a one to one basis or in small groups. This has been found to be the most effective means of delivery. Continuous evaluation via client feedback is one way of ensuring that the program continues to meet these goals.

APPENDICES

Appendix 1.

An example of one of our standardised training sessions

Managing Information Overload 30 mins

Learning outcome.

Be aware of the causes of information overload and some useful strategies to handle information in your working life.

.Objectives.

At the end of this session clients will be able to:

- List some sources of information overload
- Describe management options for their professional/technical information
- Describe options for managing email and personal files
- Describe the role of the librarian in conducting focussed searches and analysing results
- List some ways in which they can reduce information overload for their colleagues

Resources: powerpoint presentation (includes presentation notes), list of readings

Session outline

Time	Keywords	Instructional Point/ Activity
2 mins	Slide 2	Introduction: list Learning outcome and objectives
5mins	Slide 3 Reasons for information overload	 1.Why are we suffering from information overload? increase in the amount of communication – more journals, elists, discussion groups, colleagues increase in speed and variety of sources – print, email, web, phone, fax increasing complexity – cross-disciplinary work, new techniques staff reductions – loss of secretaries and assistants to help file and organise variety of formats for keeping information – print, save email, bookmark web site
	Slide 4	These factors lead to feelings of loss of control and being overwhelmed by information

1	I	ı
5 mins	Slide 5 Searching for good information	 2. What can we do to improve the information we receive and make it more relevant? Manage searching so you get just what you want ✓ posing good questions – analyse your information need ✓ write out possible keywords Analyse the results to see if they are relevant You need confidence that crucial information has been found – accept that you don't need ALL the information to make a decision Use alerting services to keep up to date – targeted and well managed - Current Contents, TOC services, elists Use bibliographic management software to manage files (ProCite®)
	Librarian help	Your librarian can help you by providing advice on focussed searching, creating lists of relevant resources, using knowledge of sources to help with choice of information source, and conducting searches on specialised databases.
4 mins	Slide 6 Web searching	 3. Some tips on web searching Learn to use advanced features of search engines (quotes for phrases, + and – operators etc) Use specialised search engines when appropriate (eg Scirus for scientific information) Understand the invisible web – use search engines to find where information might be held
10 mins	Slide 7 Personal files (PIM)	 4. Managing email and personal files General principles: Define what information is important Be cautious about what you save Have a system for what you save and where you put it Use your brain more effectively Manage information technology Take control of technology – decide what works for you
	Slide 8 Technology	 Paper based – eg calendar, diary, to do list, files, post-it notes Computer based – eg email, folders & files, web bookmarks TRIM
	Slide 9 Tips on paper handling	 Some tips: as you handle each item, decide what needs to be done with it and write a comment or attach a post-it note to remind yourself what to do and when it needs to be done file in date order so that the most urgent items are on top

	email	 Manage your email ✓ check your membership of elists and keep relevant ones only ✓ filter incoming email and only read and keep relevant messages ✓ use folders and rules to organise your email
4 mins	Slide 10 Your role	 5. Do you contribute to information overload? only send people information they need – avoid copying everyone in to all messages write subject lines that clearly describe the content of the email indicate whether a reply is required avoid duplication – don't distribute the same information in print and by email (agendas, minutes, etc) Conclusion
	Slide 11	

Appendix 2.

AUSTRALIAN LIBRARY & INFORMATION WEEK ACTIVITIES

- Illustrates the range of information literacy training activities conducted during Australian Information & Library Week.

LOCATION	ACTIVITY			
STATEWIDE	Competition - Find the 10 frogs on the Information and Library Services webpages.			
Beef Industry Centre, Armidale	Thursday, 27 May at Seminar Room, Beef Industry Centre. 9.45am Information Skills Session on Journal Impact Factors 10.15am Competition Results and Morning Tea			
Bega	Wednesday, 26 May. – What's on the library web pages			
Casino	Thursday, 27 May - Spreading the word: library visit to Casino			
Cooma	Wednesday, 26 May. – Using the library catalogue			
Elizabeth Macarthur Agricultural Institute, Menangle	Wednesday, 26 May 10.15am Morning tea munchies at EMAI Library with demonstration of New Library Catalogue. EMAI winner of Find the Frog Competition announced.			
Gosford	Thursday, 27th May. 9.40 Demonstration of New library catalogue (in the small meeting room) 10am Morning tea in tea room. Competition winners will be announced.			
Goulburn	Tuesday, 25 May 10.15 am Morning tea at Goulburn - Meet the Acting Librarian & Ask a Question. Goulburn winner of Find the Frog Competition announced.			
Head Office, Orange	Monday, 24 May at 1st Floor West Room 1 9.15am Virtual Tour of Information & Library Services web pages 10.15am Competition Winners Announced - Have you found all the frogs? ***Bring your Cuppa & Join Us for Morning Tea 11.00am Looking for agricultural stats, eg, value of fruit grown in the local area? 12.00 noon Searching the new NSW Ag library catalogue			
Kyogle	Thursday, 27 May Spreading the word: library visit to Kyogle			
Orange Agricultural Institute	Tuesday, 25 May in Old Conference Room (next to tea room)			

	9.15am Searching the new NSW Ag library catalogue 10.00am Competition Winners Announced - Have you found all the frogs? ***Bring your Cuppa & Join Us for Morning Tea 11.00am Searching the Australian Bibliography of Agriculture database 12.00 noon Searching the Agricultural gazette of NSW (1890- 1982 2.00pm Looking for agricultural stats, eg, value of fruit grown in the local area? 3.00pm Journal impact factors
Queanbeyan	Tuesday, 25 May. – Using the library catalogue
Tamworth Agricultural Institute	Monday, 24 May. 9.45am & 11.45am Ten Minute Tours - Get to Know Your Library Tuesday, 25 May at Sustainable Farming Training Centre. 9.30am Information Skills Session on Journal Impact Factors. 10.00am Competition Winners Announced and Morning Tea. 10.30am How to search the Catalogue - in 20 mins you'll know how! Wednesday, 26 May. 9.45am & 11.45am Ten Minute Tours - Get to Know Your Library Friday, 28 May. 9.45am & 11.45am Ten Minute Tours - Get to Know Your Library
Tocal, Paterson	Tuesday, 25 May. 9.30 Demonstration of new library catalogue (in Library) 10am Morning tea- Competition winners announced 10.30 Demonstration of Extension alert database.
Trangie Agricultural Research Centre	Tuesday 25 May: 10.15am Bring your Cuppa & Join Us for Morning Tea. "Find the frogs" winner/s announced.
Wagga Wagga Agricultural Institute	Friday, 28 May - WWAI Seminar Room 3.00pm Presentation on "Managing Information Overload" followed by Afternoon tea – Competition winners announced
Wollongbar Agricultural Institute	Monday, 24 May - Hudson Room 12.30pm Exploring the Library web site Wednesday, 26 May - Hudson Room 12.30pm Information Overload - you are not alone! Come and learn some tricks to help you get through the day

	Friday, 28 May - Hudson Room 12.30pm The Hidden secrets of ScienceDirect
Yanco Agricultural Institute	Monday 24 May: Yanco Library 10.30am & 3.00pm - Oxford Reference Online Demonstration Wednesday 26 May: Yanco Library 10.00am - Bring your cup and Join Us for Morning Tea. "Find the frogs" winner/s announced. 10.30am - How to Search the New Library Catalogue – You will know how in 20 minutes Thursday 27 May: Yanco Library
	10.30am - Ovid Current Contents Search® – Learn to set up your own Table of Contents Alerts 3.00pm - Informit Databases: What are they? Where are they located? How do I conduct a search using Informit databases?
Yass	Thursday, 27 May. – Using the library catalogue

Appendix 3.

Flyer for the Information Skills Program.

Power Your Mind

FIND, UNDERSTAND, USE AND MANAGE INFORMATION using your Information and Library Service's

Information Skills Program

Cite references	Conduct a literature search
Evaluate information	Find agricultural statistics
Find and use electronic journals	Find information on any topic
Keep up with new information	Manage information overload
Learn about journal impact factors	Search & use internet/intranet (indudes invisible web)
Use the library catalogue	Use Current Contents Search®
Understand Copyright	Use desktop databases
Use ProCite*	

^{*(}we recommend you attend our formal Procite Training Course. Refer to Training Calendar)

Information and Library Service staff can also provide **Basic Assistance** with creating webpages and, in some cases, with corporate software.

March 2004

The Information Skills Program encompasses all the assistance and training Librarians provide to help clients develop the skills they need, when they need them. In most cases this assistance is provided on a one-to-one informal basis rather than in formal training programs.

For	assistance	contact:		

Appendix 4.

Information Skills Program webpage

Information Skills Program

The Information Skills Program (ISP) offers a range of assistance and training to enable you to develop the skills that you need to find, organise and use information in today's online environment. Most of these topics have related web pages.

Formal Training courses

- Professional Officer Training: Information and Library Service module
- ProCite is a bibliographic reference management database program. Training course information is available from the Staff Development Training calendar or the Calender of Events for course dates and locations.

Informal one-to-one training or a group session*

- How to cite electronic information
- How to conduct a literature search
- How to search the Winspirs/Webspirs databases
- How to search Current Contents (OVID)
- How to use the Library Catalogue
- How to find information on the library web site
- Agricultural Statistics (including the 2001 Agricultural census)
- Journal Impact Factors What are they?
 - How to search the Internet and which Search Engine to use
- What is copyright?
- Dealing with Information Overload
- ► How to use ScienceDirect

Need help with WORD, ACCESS, POWERPOINT or EXCEL, don't forget the Software Forum for the Lifelong Learning program, click on the OWL on your computer desktop. Online Computer Manuals are also available (look under Computer Training) plus LT.'s Bulletin and Hot Topics might also be helpful.

^{*} Just ask your librarian to arrange a session at your location at lunchtime, afternoon tea or whenever it's convenient for youl

Appendix 5.

Procite® training evaluation sheet

NSW Agriculture Information & Library Service -

	roCite® Revi		nation & Libra	iry service -	•
	Are participa Has ProCite ferences?	pants satisficants now using training ma	ed with the training		ge their
to-	-face or by telepho	ne) approxim	training is to ask par ately three months aj a Drum at Tamworth	ter training. Pleas	se send your
	***	*****	******	*****	
Q	uestionnaire				
	k clients if they ago	ree or disagr	ee with the statement.	s in questions 1 &	2. Circle
	ProCite training urse.	provided mo	e with the skills to co	ompetently use th	ne ProCite
	Strongly Agree Disagree	Agree	Don't Know	Disagree	Strongly
	ProCite training ore efficiently.	has helped r	ne to manage & acc	ess my reference	material
	Strongly Agree Disagree	Agree	Don't Know	Disagree	Strongly
3.	How often do you	u use ProCit	e?		
	Don't Use Monthly	Daily	Weekly	Fortnightly	
4.	Have you any co	mments abo	ut ProCite training?	•	

5. Are there any aspects of ProCite that you need help with?				
—————	aspects of 110C	that you ho	——————————————————————————————————————	
hank client f	or his/her feedback	k.		
Client's Name				_
	_// Place			/ /
			_	

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