



# World Library and Information Congress: 69th IFLA General Conference and Council

1-9 August 2003, Berlin

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**Code Number:** 114-E  
**Meeting:** 154. Asia and Oceania & Public Libraries  
**Simultaneous Interpretation:** -

## **Creating Information Literacy as Corporate Products: Perspectives and Experiences from Singapore**

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### ***Abstract***

*The opportunities for creating information literacy programmes in 'corporate' products is explored in the paper. Information literacy has emerged as a critical skill in the Internet-based knowledge economy, to ensure a workforce that remains employable. This paper presents a new paradigm to conceptualizing, implementing and sustaining information literacy programmes. It audits how information literacy programmes in libraries has evolved into a 'product' using working examples from Singapore. The authors present personal accounts of how they have been involved in 'corporatising' information literacy programmes for different customers in Singapore and share practical examples of information literacy programmes which have generated income for the library and highlighted the role of libraries and librarians as strategic partners in information literacy programmes and training.*

### **1 Singapore as a Knowledge-based Economy**

Singapore is an island city-state that has no natural resources. Its emphasis is on educating its people as its human resource. The literacy rate in Singapore is 93% where at least 71% of the population is literate in English. (Singapore Census of Population, 2000).

The government is especially concerned about the labour force as it affects economic productivity. Singapore has one of the world's fastest ageing populations. It was noted that with

Singapore's transition into a knowledge-based economy and longer life expectancy, a worker at the age of 40 still has about 25 years of economic value. The Ministry of Manpower (MOM) strives towards lifelong employability for the workforce and national competitiveness, as the foundations for Singapore's knowledge-based economy depends on the population being Internet savvy. Minister Yeo Chow Tong urged all Singaporeans to be aware of the three main digital "fault-lines": income, language and mindsets which are some of the factors that cause the digital divide. (Yeo, 2000). Adding to this Prime Minister Goh emphasised the need to "turn the digital divide into digital dividends." (Goh, 2001).

## **2 Contextualising Libraries and Literacies**

The National Library Board (NLB) is a statutory organisation under the parent Ministry of Information and the Arts. NLB sees itself as an advocate in learning as reflected in its mission statement: "to expand the learning capacity of the nation so as to enhance national competitiveness and to promote a gracious society." It also strives to deliver a world-class library system which is convenient, accessible and useful to the people of Singapore (National Library Board, Annual Report, 2001/2). For the financial year ending in 2002, the NLB had a critical mass reach where its network of 67 libraries welcomed an annual visitorship of about 28 million of which 2 million were members. Its annual loans translated to 28 million. As a strategic community agency, the NLB has been a conduit for the delivery of public programmes. The library has always promoted reading and literacy, but now with a rich IT infrastructure and the growth of information in both print and electronic media, it has embraced both IT literacy and information literacy.

NLB is a project centric organisation where all professional staff are required to complete a 2-day course in project management. All initiated projects are required to reflect a return or value on investment. The entire organisation is moving toward a business-centric model. Innovation in the organisation is developed through a continuum of prototyping, productisation and commercialisation. No doubt, NLB's tag line of "Knowledge, Imagination, Possibility" helps to foster creativity and innovation. The library has invested vast amounts of monies in IT infrastructure and has constantly re-engineered its services to establish best practice models. Acknowledging this was a case study conducted by Harvard University (Neo, Hallowell, Knoop, 2001) on the transformation of public libraries in Singapore where the libraries are seen as celebrating learning and a place that promotes a vibrant and pulsating lifestyle.

The authors had been fortunate to advocate the need for information literacy and have worked through the rigour of project management to gain endorsement for setting up the Information Literacy Programme (ILP) in 1998. The ILP team, which consisted of three librarians, positioned information literacy as being a lifelong learning skill for all Singaporeans where they would need to identify, manage and use information from both print and electronic resources. The Internet and its potential was seen a lifestyle imperative in order to survive in the information society.

### 3 Carving Out Information Literacy Programmes (ILP) as Products

In setting up shop, the ILP team developed three programmes. Figure 1 illustrates the 3-tier hierarchy which then resulted in the creation of different ILP products for the different segments of the population.

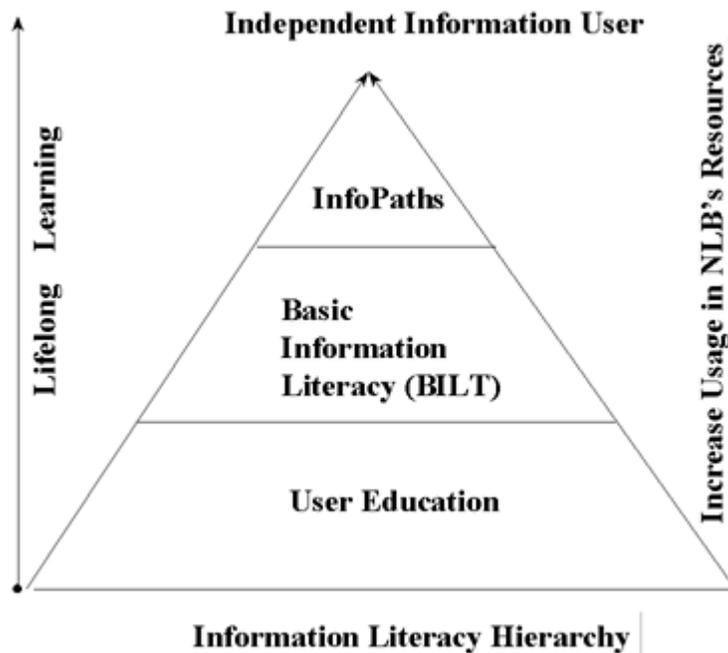


Figure 1: Three Tier Information Literacy Hierarchy in NLB

#### 3.1 Programme 1: Be InfoSmart (User Education)

Be InfoSmart is a User Education Programme which consists of orientation programmes for the general public and class visits for students. The objective of these programmes is to introduce the general public and students - from primary to junior college levels, to NLB library services, policies, facilities and resources. This programme is offered free of charge as part of the “public good” function of the library.

**Bottom Line:** As a “public good”, the library still offered some free programmes. The orientation to new users promoted both print and electronic resources. Library memberships and loan indicators went up. For database searching, opportunities to tie-up with vendors to do training (e.g. nexis.com) were opened up.

**Drawback:** Initial runs had healthy attendee numbers, but subsequently dwindled with time, as users were able to find their way around on their own. User Education was then offered at point of need. Staff resources were not utilised optimally and logistics was becoming a challenge. The programme was scaled down with regards to frequency.

## **Thematic ILP**

A series of thematic ILP programmes have also been developed for the general public. “Hot Topics” such as Business, Travel, Health and Wellness, MP3 and Downloads, Crafts and Hobbies Information on the Internet are some of the programmes delivered thus far. Sometimes, the programme is packaged with a promotion where participants get free access to special collections/resources.

**Bottom Line:** NLB was able to reach out to the general public with special interests and niche audiences. Guest speakers were invited, incorporating book displays and book lists in the programme. The concept of repackaging and customisation to push programmes required interdepartmental working and sometimes-even outsourcing of programmes to subject specialists and experts.

**Drawback:** Targeted at working adults, programme had to be done after working-hours. There was a mixed level of competencies in participants. Cost of the programme could be prohibitive if experts were involved and required payment. Participants who attended a previous class would have picked up the “theory” of searching and search skills.

### **3.2 Programme 2: Basic Information Literacy Training (BILT)**

Targeted mainly at primary and upper secondary schools, BILT introduces students to the Internet as a research tool. There are three modules in this programme which is customisable for different levels (basic, intermediate, advanced) and curricula. The average duration for each module is about an hour. Titles of modules include: Internet Search Strategies, Internet Search Tools, Evaluation and Citation of Internet Resources. As demand grew for Project Work skills, a programme to offer hands-on instruction in the use of printed and electronic resources was conceived. It helps students to locate information resources for their project work. Again the librarians work closely with the schools to develop the programme to meet the needs of students.

**Bottom Line:** This programme went for mass numbers. A typical class size was 30 students and a programme cycle can range from 30 to 300 students. It looked well in reporting for statistical purposes. The two programmes allowed students to progress in their learning. With repeat customers, there was a closer working relationship with schools.

**Drawback:** There will be fatigue and trainer burnout due to the number of runs and class sizes. Demand might not meet supply. Might need cyber guides. School budgets are limited. Schools can be demanding customers.

### **3.3 Programme 3: InfoPaths: Pathways to Information**

This programme is targeted at corporate clients, government workers, other institutions, as well as the general public. The InfoPaths programme was customised and value-added to make clients, regardless of their IT background, more infosavvy. Emphasis was placed on Internet searching and information literacy rather than IT literacy. The courses empower clients to efficiently and effectively manage information in the new knowledge-based economy. The InfoPaths programme was sold as a separate programme or bundled as part of

the information service that is sold to a corporate client. The duration of the programme ranged from a minimum of four hours to a day depending on the client's availability.

**Bottom Line:** Broke into the corporate market. Some of the attendees included CEO's, directors and managers. In this way we were able to get "buy-in". As a corporate product from the organisation we were able to "cross-market" other products and services to create a win-win situation. NLB as an organisation became a leader in the provision of ILP to this segment of users. Customisation of content for clients. Used parent organisation to make inroads into the other ministries. There is a need for information literacy training especially on searching skills.

**Drawback:** Number of participants can be small. Average class size is between 15 – 20 participants. Arranging a suitable time to the convenience of both parties might be problematic. Needed good marketing skills to sell ILP to corporate clients in the private sector. Clients wanted accreditation for the courses to get rebates from the government as retraining and reskilling of the workforce.

### **3.4 Implementation and Product Development**

The Be InfoSmart programme was rolled out to all the branches. For this the ILP team took a centralised approach where they:

- developed courseware for branch libraries;
- trained branch librarians to deliver the programme thereby developing a pool of trainers and expanding the capacity of staff; and
- branded and produced collaterals for branches

Library Officers were trained to deliver these programmes whereas the professional librarian did the more value-added programmes. A pool of branch librarians who were then able to meet requests from their neighbourhood schools offered programmes such as BILT and IPW for students. The core ILP team focused on the InfoPaths programme for corporate clients and offered ad hoc Thematic ILP programmes.

To encourage research and development, the ILP team produced a CD-ROM on Internet Search Strategies to experiment with computer-based learning. Working with an external vendor, this enabled us to explore elearning opportunities. The CD-ROM was produced and made available for sale. A major boost to the team was when the Ministry of Education incorporated the CD-ROM as an approved learning software for schools in Singapore. The CD-ROM is bundled with the training programmes. With all this in place, the ILP team was already in business.

## **4 Forming Strategic Alliances**

The then National Computer Board (now InfoComm Development Authority or IDA) needed a permanent venue to offer basic Internet training to Singaporeans. NLB, on the other hand, wanted to step up training on basic information literacy for its customers. The One Learning Place (OLP) pilot project was initiated. The Toa Payoh Community Library was picked as a site where an area of 430sq.m was set aside with 136 PCs connected to broadband. Strategic alliances were also forged with main corporate companies such as Siemens, Singapore Telecommunications, 3M,

Creative Technology, Bider, SUN, Macromedia, Microsoft, Yahoo!Singapore etc. The estimated setup value was S\$4 million (furnishing, equipment, software). The frequency of training on a weekday included three sessions and two sessions on weekends. The challenge was to train 100,000 people in 2 years (May 1999 to April 2001). The objectives of this project was to:

- promote an awareness and usage of internet and electronic resources to the public;
- bridge the digital divide by providing hands-on training at an affordable cost; and
- groom Internet and information savvy human resource (Ngian, 2002).

The courses offered targeted students, working adults, homemakers and senior citizens. Courses were delivered in English and Mandarin. The cost of courses was \$20 as compared to more than \$100 charged by commercial schools. There was a total of 86,847 people trained from May 1999 to May 2001 (87% of the target). The shortfall was due largely to the limited capacity. The outcome of the project resulted in more IT courses such as Web-page creation using Macromedia applications, Microsoft tools and Advanced Search Skills.

When the pilot project ended in May 2001, OLP was set up in 3 other libraries representing the east, north and the west of Singapore. The government saw the need for sustaining learning and launched the National IT Literacy Programme (NITLP) in June 2001.

## **5 National IT Literacy Programme**

An InfoComm literacy survey was carried out in 2001 which measured Singaporean's e-savviness in areas such as performing e-transactions (for example, Internet shopping, Internet banking) and e-entertainment (for example, downloading entertainment software) as part of an e-lifestyle.

Resulting from this was the launch of the National IT Literacy Programme (NITLP). The Ministry of Manpower (MOM) and IDA were tasked to spearhead this programme. The Prime Minister, Mr. Goh Chok Tong, highlighted the need to involve all parties and stakeholders to make the programme a success. He noted at the launch of the programme,

“Upon completion of these literacy courses, trainees would have the basic skills to operate the computer and to surf the Internet. They will be able to search and retrieve relevant information, communicate via email and perform online transactions...I would like to commend the volunteers, especially the e-Ambassadors, who have mentored the trainees during the courses...I would also like to commend community organisations such as CDAC<sup>1</sup>, SINDA<sup>2</sup>, MENDAKI<sup>3</sup>, the Eurasian Association and the People's Association, as well as partner organisations including NTUC<sup>4</sup>, the National Library Board and the Singapore Computer Society, which have contributed immensely to the effort. Our thanks too, to private-sector parties, including the Singapore National Employers Federation, the Singapore IT Federation, private training providers and IT equipment vendors.” (Goh, 2001).

From the above statement it is important to note that all parties were involved in the programme.

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<sup>1</sup> Chinese Development Assistance Council

<sup>2</sup> Singapore Indian Development Association

<sup>3</sup> Malay/Muslim Community Group

<sup>4</sup> National Trades Union Congress

IDA developed an Infocomm Training framework for different target groups and different levels of competencies. A curriculum was proposed and a tender for courseware development was called. The ILP team designed and developed the courses relating to information literacy. Some of the titles included: Searching for Information, Emailing, Netiquette and Internet Relay Chat. NLB was able to embed information literacy in the curriculum. The courseware was customised for different target groups, like senior citizens and homemakers. Authorised Training Centres were designated, each with a pool of cyber guides. The NITLP programme is a 14-hour programme where 80% of the course fees are subsidised by the government. The NITLP programme is now available in elearning format. For the period May 2001 to July 2002 a total over about 24, 000 participants attended the programmes.

## **6 Lessons We Learnt**

When the information literacy programme became a cost centre, it became apparent that accountability and a business plan is key to survival especially in the project-centric organisation. Below are some key learning points on how we evolved the information literacy programme into a viable commercial activity:

### *6.1 Sustaining and What's Next: How to introduce new courses*

It is important to have a training roadmap for participants. Very often after participants attend a programme, there is no progression. For participants who “graduate” from the programme, advanced modules and other courses could be recommended. Scanning the environment through the literature and the Internet helps in generating ideas for new courses. Create a Customer Relations Management (CRM) system of your participants by maintaining a mailing list.

### *6.2 Competitors and Corporate Citizens*

Conduct a market survey to determine who your competitors are. Check who else is out there offering similar courses? Compare the prices. Find your niche. Turn competitors into co-operators to create a win-win situation. Libraries have an advantage in being able to offer a total learning experience from books to training to event programming.

### *6.3 Train-the-Trainer*

Let go! Once the product is “stable” decentralise the programme. If you have branch librarians train them to deliver the programme. Develop a pool of trainers whom you will deploy as satellites. Reward them for their efforts, with not only money but also tokens. Adopt an internal “mini franchising model” where you develop the courseware and maintain the intellectual property. Focus on more high-end-value-added programmes. Think of the “Tupperware” phenomenon. Use students as cyber guides. Explore the options of volunteers.

### *6.4 Choice of Modes: E-learning vs. Face-to-Face*

Decide on the mode. Elearning is only a medium which is still taking off. People still prefer to have a physical person in a face-to-face training environment. Offer blended learning. Students take modules online to learn the theory and the hands-on provides the application.

### *6.5 Customisation and Repackaging*

Your courseware should have the versatility of customisation. Do once, use many times. The idea of a return on investment must be at the back of your mind. Changing examples and packaging relevant content for different clients can be both effective and efficient. You have the “staple”, garnish the product with customisation. The use of templates saves time and allows for a common look and feel to the product. Templates also allow others to develop the courseware as the core team members do the quality control. When designing content, look at the possibility of translation into other languages. NLB translated Internet Searching into Mandarin, Malay and Tamil under the e-Celebrations festival. If you do not have the skills in-house, outsource it. “Bite sized” programmes have a higher take-up rate. Very often corporate clients are unable to spare the whole day for training. A four-hour programme or morning programme works well, especially if it is outside the office. Students tend to have an interest span of 2 hours.

### *6.6 Be Adaptable: Pack and Go*

Don't say no to a training that is required off-site or at a client's premises. If possible state your IT requirements upfront in the contract. Go down to the site a day before and orientate yourself. Create an ILP kit in which essentials such as presentation slides and stationery. Be nimble. Be ready to source “targets”, sell programmes, design courseware, print materials, delivery training and collate feedback – all as part of your daily routine. You need a quick response team, commando-style.

### *6.7 Keep Records and Maintain statistics for Return On Investments*

It is important to record and maintain your statistics from day 1. Statistics help to justify the existence of the programme. It can also help you to get more staff. A consolidated monthly report that is graphically presented will ensure more visibility for yourself and the programme. Get “airtime” for your ILP programmes at meetings.

### *6.8 Interfaces*

When working with different groups be prepared for problems. Not everyone works like you do. Establish Service Level Agreements (SLAs) with other divisions especially if they charge for services rendered. Communication is key.

### *6.9 Marketing and Promotion*

Sit down with your marketing team and do a SWOT (Strengths Weaknesses Opportunities Threats) analysis. Explain to them if they are not librarians what information literacy is. Ask them to produce some documentation. A marketing plan will enable you to see the big picture and help you factor in costs such as printing and collaterals. Seek sponsorships. Remember when you teach ProQuest or nexis.com, you are actually promoting the vendor's product! Get them to offer training, too.

### *6.10 New Skills for Librarians*

Information Literacy training has become part of most librarians job descriptions. More time is spent delivering training and developing course materials. Librarians role as content creators are expanding. Packaging information allows one to develop this competency. Business acumen is another area where librarians need to develop expertise. Writing proposals, managing accounts, negotiation and marketing skills are transforming librarians to become entrepreneurs. Creativity

and innovative learning techniques to meet the needs of a problem-based learning environment is imperative. Enhance your skills in using software such as PowerPoint, Adobe and Web Publishing. If you are working as a team share the work based on expertise and interest. It will help you work faster.

#### *6.11 Factor in the costs*

When developing courses, it is important to factor in all costs. Initial costs would be high, but if the course is repeated and has multiple runs, this will balance out. Factor in costs such as: labour and logistics with regards to usage of venue and refreshments, promotion and marketing. If you are not doing it today, then someone else is paying for you.

#### *6.12 Optimise the Internet as an Enabler*

Use tools such as Yahoo Groups to create virtual learning classes. Yahoo Groups allow one to access the information 24/7/365. The interactivity of the chat feature allows for online learner support. It is easily customisable and most of all it is free. Use mailing lists to reach out to your customers.

#### *6.13 Portfolio Management, with trust*

Trust fellow team members with what they are doing. Allow autonomy and freedom to make decisions.

## **7 New Frontiers**

For the last financial year 2002, over 35,000 people have been trained in ILP by NLB and some 24,000 people trained in the NITLP programmes. Today the ILP is one of the flagship products of NLB. The ILP is now subsumed under the National Library Board Institute (NLBI) which offers training courses and programme development for learning. One of the outsourced services offered by NLB to academic institutions and corporate clients is ILP. Opportunities for expansion dawn on the horizon and inroads into elearning are developing rapidly. Market research company IDC estimates that Singapore's corporate elearning market would be worth US\$28 million by 2005 with an annual growth rate of about 18% (IDC Press Release, 2001). In addition, the recently released Economic Review Committee (ERC) predicts that the education industry has the potential to tap into the already US\$2.2 trillion world education market by making Singapore an education hub. Areas of opportunities include attracting international students, foreigner's corporate executives to study and train in Singapore. The resultant effect can be the creation of jobs. Singapore already has satellite campuses of eight top foreign universities (Davie, 2002). Leveraging on other government agencies is opening doors to allow us to venture into the region in countries like China and India. Within established best practices we are already exploring the option of franchising ILP courses. There are two areas of franchising that is being investigated. These include:

1. Programme development and training delivery in areas of courseware development and train-the-trainer.
2. Establishment of training centers in the area of setting up learning centers.

The need to accredit ILP courses by different accreditation bodies to reward employees who attend information literacy courses is being worked upon. For schools, information literacy is

becoming part of the curriculum as students move into collaborative problem-based learning methodologies.

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