

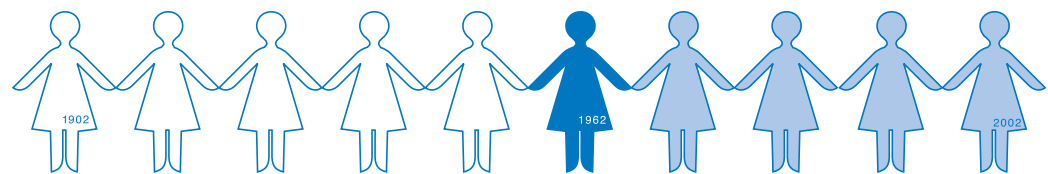


NSW GOVERNMENT

**ACTION PLAN FOR WOMEN IN INFORMATION  
AND COMMUNICATION TECHNOLOGIES**

2002–2004

equality families justice education violence work safety power leadership training communities health



100 YEARS OF SUFFRAGE

**NSW GOVERNMENT ACTION PLAN FOR  
WOMEN IN INFORMATION AND  
COMMUNICATION TECHNOLOGIES**



**This booklet provides an overview of  
NSW Government plans and actions for women involved  
in information and communication technologies.**

**The information in the booklet  
is taken from the  
NSW Government Action Plan  
for Women 2002–2004**

***Information and Communication Technologies (ICT) are transforming our social, political and economic lives. Women need access to all the advantages and opportunities ICT offers — better economic prospects, communication with the wide world, easy access to information for better decision-making and enhanced education and skills.***

## **Participation**

Participation in ICT can cover a wide range from providing internet access for women individually or women's organisations, to having the resources needed to take part in the online world. Accessing ICT does not only mean consuming the information provided but also contributing content.

The right to communicate has been outlined in the United Nations Declaration of Human Rights as 'the right to freedom of opinion and expression', including the right to seek and exchange information and ideas through any media.<sup>4</sup>

To ensure that women's online participation is easy and effective, barriers such as limited access, computer illiteracy and language barriers need to be overcome. Strategies are particularly needed to support women with the least resources — especially Aboriginal women, immigrant women and women with disabilities in their access to and use of ICT.

## **Empowerment**

ICT offers new sources of information and prospects of making connections with others. ICT skills are increasingly important to access information and services, develop business opportunities, gain employment and enhance knowledge.

- ◆ A Department of Education, Training and Youth Affairs (DETYA) study suggests that engagement with computers begins within the home environment where more boys (32 per cent) than girls (23 per cent) are given their own computer.<sup>1</sup>
  - ◆ Statistics on the number of women undertaking information technology (IT) training varies. There is however agreement that the proportion of women is low. Charles Sturt University reports that while 56 per cent of Australia's university population are women, women are less than 40 per cent of students in most information technology courses, and in some courses, the proportion is as low as 25 per cent.<sup>2</sup>
  - ◆ Approximately 73 per cent of men and 72 per cent of women aged 16 years and over in Australia had access to the internet.<sup>3</sup>
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- ◆ Depending on how information technology is defined, the number of women working in the field in Australia is somewhere between 20 per cent and 40 per cent.<sup>5</sup>
  - ◆ A study undertaken by the Department of Education, Training and Youth Affairs (DETYA) found sex role stereotyping and culture are major barriers for women entering the IT industry. Australian girls tend to lose interest in IT around the age of 15 or 16.<sup>6</sup>

## **Influence**

ICT has already had a major influence on many women's lives from doing banking online to changing their jobs. Computer skills are increasingly needed for work and for navigating everyday living. 'Digital divide' and 'IT skills gap' have become terms to describe differences in access to ICT. Women's access to ICT depends on the background of the woman such as

In NSW, in the week preceding the 2001 Census 7,2,600,257 people (41 per cent) had used a personal computer at home.

Of those using a computer at home there were:

- ◆ 424,100 girls and women (13.1 per cent) aged 0–19 years compared to 442,734 (14.1 per cent) boys and men;
- ◆ 566,755 women (17.7 per cent) aged 20–44 years compared to 562,586 (18 per cent) men in the same age group;
- ◆ 282,567 women (7.6 per cent) compared to 243,365 (9 per cent) men aged 45–64 years; and
- ◆ 30,162 women (1.2 per cent) aged 65 years and over compared to 47,988 (1.5 per cent) men.

1,264,382 (39 per cent) of women used a personal computer at home compared with 1,335,875 (42 per cent) men. 1,798,608 (56 per cent) women and 1,639,822 (52 per cent) of men do not use computer at home.

In the week before the 2001 Census 1,110,967 (34 per cent) women and 1,187,070 (37 per cent) men accessed internet. 1,932,390 (59.8 per cent) women did not use the internet compared to 1,769,115 (56 per cent) men.

The points from which the internet was accessed included:

- ◆ 592,822 (18.3 per cent) women and 600,980 (19 per cent) men used the internet from home;
- ◆ 180,421 (5.5 per cent) women and 161,007 (5 per cent) men used the internet from work;
- ◆ 3 per cent of both women (99,451) and men (97,253) used the internet elsewhere; and
- ◆ 238,273 (7 per cent) of women and 327,830 (10 per cent) men used the internet in combination of places such as home and work or work and elsewhere.

occupation, cost, literacy and education, time, language, geographic location, social and cultural norms, infrastructure and skills. Other factors that could contribute to the digital divide include the type of content on the web, the language used and accessibility.

This chapter examines government initiatives that encourage women to participate in, work with and use ICT.

## **NSW Government policy commitments<sup>a</sup>**

- ◆ Investigate the development of a Women's Information Technology Access Program to encourage women's take up of information and improve women's access to electronically delivered government information and services;
- ◆ Implement a *Computers in Schools Program* and provide 90,000 new computers for schools across NSW, supported by strategies to ensure equitable access for girls; and
- ◆ Promote information technology traineeships to the community. Women seeking retraining to return to the workforce will be specifically targeted.

## NSW Government Initiatives

### INCREASING THE PARTICIPATION AND ACCESS OF WOMEN TO EXPRESSION AND DECISION-MAKING IN, AND THROUGH THE MEDIA AND NEW TECHNOLOGIES OF COMMUNICATION

#### Encouraging women as ICT entrepreneurs

The Department for Women (DFW) and the Premier's Council for Women (PCW) provided sponsorship for the Western Sydney Information and Communication Technology (ICT) Cluster — Women in ICT Award 2002.

The *Western Sydney IT Start Up Award*:

- ◆ Assists entrepreneurs in Western Sydney to start-up a new business venture;
- ◆ Encourages, promotes and supports research and development, innovation and the commercialisation of new ideas and technologies; and
- ◆ Promotes innovation and fosters entrepreneurship.

The DFW/PCW's contribution encourages the involvement of women entrepreneurs and is specifically for a business owned and operated by a woman working in Western Sydney. This Award is part of an initiative of the Office of Western Sydney and the Western Sydney IT Cluster as one of a series of knowledge-region initiatives launched by Kim Yeardon, Minister for Western Sydney. It is modelled on the best of business plan competitions operating in Europe, Canada and the United States and is supported by the Western Sydney IT Steering Committee which includes IT industry associations and the NSW Department of Information Technology and Management.

Targeting the award to attract women addresses the shortfall of women participating in the IT industry, and more generally the

anticipated growth of IT sector employment. The 2002 winner, Kim Louise Aubrey, received a prestigious trophy, cash or services and was offered a Mentoring Program through the Western Sydney IT Cluster.

#### Planning women's participation in ICT

The Department for Women completed the *Information Technology Strategic Framework 2002* this year. The strategic framework provides context and clarity for the Department's work in information technology, highlighting the Department's current ICT initiatives and partnerships. It also covers relevant international conventions, government commitments and programs, gendered research/statistics and consultation mechanisms <http://www.women.nsw.gov.au/IT/intro.html>.

### PROVIDE BUSINESS SERVICES, TRAINING AND ACCESS TO MARKETS, INFORMATION AND TECHNOLOGY, PARTICULARLY TO LOW INCOME WOMEN

#### Creating content relevant to women and girls

Women in rural, regional and remote communities can access the *NSW Agriculture Rural Women's Network Website* <http://www.agric.nsw.gov.au/rwn/>. The site provides useful links, monthly updates, media releases, a calendar of events and resources to rural women, organisations and networks. From July 2001 to June 2002, there were more than 130,000 hits to the site and 26,700 user sessions. With growing interest and access to information technology and the internet, the Rural Women's Network website facilitates rural women's access to information exchange in an up-to-date, timely and relatively inexpensive way

The NSW Health through the Mid North Coast Area Health Service and the Manning/Great Lakes Domestic Violence

Monitoring Committee created a local domestic violence website as an information tool for the local women and service providers. The site is an initiative of the Manning/Great Lakes Domestic Violence Monitoring Committee which comprises local government and non-government service providers as well as members of the public. The website was set up by students of the local TAFE with input from the committee.

Funding for the project came from grants to the committee from the Violence against Women Strategy and the ongoing costs for the website from committee agencies. The Women's Domestic Violence Court Assistance Scheme monitors and updates the site. The site receives approximately 21 'hits' a week with about six a week from international sources. The site has also provided direct referrals to the local Women's Domestic Violence Court Assistance Scheme <http://www.dvinfo.org>.

The *Department for Women's Website* provides information and resources for women, organisations working with women and students. The site covers important issues for women such as leadership, work, health, safety, gender analysis, education and training and ICT. Approximately 8,000 users access the site a month <http://www.women.nsw.gov.au>.

The *Women's Gateway* is an innovative and groundbreaking information technology project for women developed by the Department for Women, funded by the NSW Office of Information Technology. The Gateway was developed in line with the Government's commitment to electronic service delivery by providing ready access to a wealth of information and resources. The Gateway also facilitates community-building activities amongst women by enabling women's groups to publicise their events and activities on the site <http://www.womens.gateway.nsw.gov.au>.

The Gateway includes:

- ◆ a directory of close to 3,000 NSW women's services and organisations;
- ◆ searches for information from government, community and private websites on topics of interest to women including multilingual versions of online publications;
- ◆ Frequently Asked Questions on topics of interest to women;
- ◆ a Job vacancies page, featuring online resources to assist women to find employment;
- ◆ a News page, featuring current news items of interest to women; and
- ◆ an Events page, listing the details of coming events of interest to women.

Last year, the Women's Gateway received a commendation for best practice in eGovernment at the 2001 NSW Premier's Public Sector Awards. The Women's Gateway attracted nearly 50,000 users in its first year. The community has posted 90 news and 251 events items via the Gateway with the user feedback being very positive. The Gateway rates very highly for ease of use and likelihood that users will return. The site complements and expands the Department's own Women's Information and Referral Service telephone service

## IMPROVE WOMEN'S ACCESS TO VOCATIONAL TRAINING, SCIENCE AND TECHNOLOGY AND CONTINUING EDUCATION

'Women's participation in post-secondary education in information technology and telecommunications (IT&T) remains at a low level and has not changed significantly over the last five years. Once in tertiary IT&T courses, women have a success rate comparable to all students; however generally women are taking lower level IT&T courses, particularly in the Vocational Education and Training (VET) sector.'<sup>9</sup>

DETYA suggests that women make up about 19 per cent of IT enrolments in both higher education and vocational training sectors.<sup>10</sup>

The Department of Education and Training is developing a careers website called *GirlsWork: Work Opportunities for Young Women*. This \$29,000 project will encourage young women to consider a broader range of career options to restart or remain in education and training.

The intended audience of the website is young women aged 14–19 years who are:

- ◆ in school
- ◆ at TAFE
- ◆ considering leaving school or TAFE
- ◆ unemployed or under-employed
- ◆ at risk of disengaging from education and training.

The website's main pages include:

- ◆ GirlsWork, that challenges young women to consider the way gender can impact on study, work and career choices;

- ◆ Pathways, which discusses the many paths to achieving jobs and careers and encourages young women to explore their options;
- ◆ Work Profiles, that highlights industry areas which young women may not have previously considered. Each section gives information on the kinds of work, pay, and links to further information; and
- ◆ Your Stories, which features interviews with young women who have achieved success in their chosen field.

Other sections include ecards, a quiz, news and links to help with job searching, career choices, training information and support. Focus groups have been conducted to ensure that the website is attractive, engaging and relevant to its intended audience. Stickers, posters as well as a teaching resources will be used to promote the website.

## ENCOURAGING GIRLS AND WOMEN TO TAKE UP ICT

The *Girls and IT Project* conducted by the Department for Women and the Department of Education and Training, sought to identify factors contributing to girls' low uptake of IT subjects.

The research project has been completed and a report including rationale, methodology, literature review, findings and strategies for action has been prepared including specific findings for the two participating schools. This project will inform the development of strategies to increase girls' participation in IT education, training and careers. Discussions are now underway with the Department of Education and academics to conduct a broader state-wide project.

## Girls and IT Project

Two comprehensive high schools in Western Sydney were selected as sites for the Girls and IT research project undertaken in Terms 3 and 4, 2001. Overall 383 students (Year 8 and Year 10) answered a survey questionnaire and 90 were followed up with individual interviews. Of those surveyed, 42 per cent were girls, and of those interviewed 44 per cent were girls. In addition 14 staff and 24 parents were interviewed across both schools.

### Key findings – Students

- ◆ Girls are under-represented in information technology subject choices.
- ◆ The proportion of boys who took IT subjects increased slightly from Year 8 to Year 10 (47 per cent and 49 per cent of boys) while the proportion of girls taking IT subjects fell by half from Year 8 to Year 10 (35 per cent and 17 per cent of girls).
- ◆ Students who chose computing or IT subjects were more likely to come from linguistic/cultural backgrounds other than English compared to the survey population as a whole.

### Why don't girls choose IT?

#### Questionnaire findings

Girls were more likely to report preference for other subjects and lack of interest in IT as reasons for not taking IT, while boys were more likely to report not knowing much about IT as a reason for not choosing these subjects.

#### Interviews revealed:

- ◆ Both boys and girls perceived they had good computing skills and there was no need to pursue Computing Studies in Year 9/10.
- ◆ Girls' interests lay in other domains and computing or IT subjects were not perceived to have the right elements to hold their interest.

- ◆ Girls perceived computing/IT subjects to be non-challenging, consisting mostly of typing and simple tasks and not allowing for creativity.
- ◆ Girls were more likely than boys to report a negative relationship with the teacher as a reason for not choosing CS or IT.
- ◆ Some boys and girls believed they could achieve a higher HSC mark by doing other subjects.
- ◆ Boys place more importance on subjects which will assist in their career/employability, while girls place more importance on pursuing subjects for interest.
- ◆ Timetabling resulted in an IT subject conflicting with a more popular subject, affecting boys and girls at one school.

### Are girls turned off by computers?

Contrary to some previous Australian and overseas findings, the girls had positive perceptions of computers and the IT industry. This study supports findings from an Irish study that girls have positive attitudes towards computers and enjoy using them.

#### Questionnaire findings:

- ◆ Girls are not turned off by computers before they start high school, and tend to report more positive previous experiences than boys.
- ◆ All students (boys and girls) showed a high rate of computer usage prior to starting high school and the vast majority enjoyed it.
- ◆ The vast majority of students perceived their current skill levels to be good and wanted to keep on improving their computer skills.
- ◆ Girls are highly engaged in using computers for school work/homework and games/entertainment/communication activities, regardless of whether they choose an IT subject.
- ◆ Girls viewed computers as a means to an end, that is, as a tool for pursuing interest and communication activities, mainly through the internet.

- ◆ Boys were more likely to view the computer as an end in itself for undertaking problem solving tasks and understanding how computers work.
- ◆ Those girls who did not choose IT subjects were even more likely to engage in games/entertainment and communication (e-mail, chat rooms) activities than girls who chose IT subjects.

#### **Interviews revealed:**

- ◆ Those who had not used computers prior to high school were mainly recent arrivals to Australia, and were more likely to select computing/IT subjects in order to catch up on their skills.
- ◆ Girls are not turned off by computers before they start high school, and tend to report more positive previous experiences than boys.
- ◆ Girls were less likely to report having special skills over and above other students, while boys spoke with more confidence about what they were able to do that other students could not do.
- ◆ The internet was seen as the most cogent feature of computers for most students.
- ◆ Boys are also highly engaged in using computers and enjoy the sense of control it gives them.
- ◆ Boys are more likely than girls to want to go beyond using the computer as a tool to solving programming, hardware/software problems.

#### **Why do girls choose IT?**

##### **Questionnaire findings:**

- ◆ Using a computer at home was the main factor influencing IT subject choice for all students.
- ◆ Parents, particularly mothers, were also important influences on younger students, predominantly amongst girls choosing IT.

- ◆ By year 10, course information outweighed parental encouragement as an influence for both boys and girls.
- ◆ Boys and girls chose IT subjects for utilitarian reasons such as usefulness of the skills, good future career prospects and the prospect of a well-paid job. Interest in IT was secondary along with confidence with computers.
- ◆ Boys and girls reported their parents and teachers played a minimal role in encouraging/discouraging them to choose a computing/IT subject.
- ◆ High proportions of choosers and non-choosers reported that computing was equally useful for both sexes.
- ◆ While the majority of girls and boys felt that neither sex was better at IT, slightly more boy choosers reported that boys were better at IT.

##### **Interviews revealed that:**

- ◆ Girls choose IT to gain useful work skills if dream job/career is not achieved.
- ◆ Boys' reasons centred around IT being perceived as easier than other subjects (such as history, sciences), future employability, or that computers held a strong and abiding interest for them
- ◆ Girls who chose computing or IT subjects considered themselves to be forging a different path from other girls, and were proud of this

##### **How is the IT industry perceived?**

Almost all students, regardless of gender, viewed IT jobs favourably and were more likely to agree with positive descriptors and to disagree with negative descriptors. Those who had chosen IT subjects (boys and girls) were more likely than their non-choosing counterparts to agree with positive descriptors of IT jobs such as creative, interesting/satisfying, good job security and involvement in helping people.

The Department of Education and Training is conducting a project called *Explore Your Future* to encourage women and girls into information technology. The project has two components; a 'taster day' and an information session. The 'taster day' will be conducted for Aboriginal girls using activities to discover the capabilities of computers. Women from the IT industry will discuss their professional experiences and the diversity of opportunities in the industry. A panel will be formed to answer questions from the girls. The second part of the project is an information session focussed on 'Work Wise Women' — the Certificate IV, IT (Client Support) course that will be conducted for women and girls who are participating in lower level qualification award TAFE courses. This session will also be open to women who wish to explore higher level courses in information technology. Promotion for the session will have a particular focus on women with a disability, women with culturally and linguistically diverse backgrounds and Aboriginal and Torres Strait Islander women.

These activities will be documented and will inform the development of a program kit to assist other TAFE NSW Institutes to implement similar programs. The kit will include an outline of activities, a checklist for organisers and samples of promotional material. This TAFE NSW – Illawarra Institute initiative will provide the opportunity for girls and women, particularly Aboriginal girls, to explore the diversity and challenges of IT training and the IT industry.

The *Digi-girls* project undertaken by Northern Sydney Institute provided a structured IT program for fifteen Year 9 girls from the Northern Sydney area to broaden girls' understanding of information technology career opportunities and the pathways into occupations within the IT industry. The program conducted in November 2001 focussed on a two-day workshop which included presentations from role models, discussion of possible

careers in IT, project work in teams, mentoring and student presentations to parents, information technology workers and teachers.

Given the success of the program, Northern Sydney Institute will undertake a second phase of the project with fifteen Year 10 girls in 2002. The program and its outcomes will be documented in a project report for distribution throughout TAFE NSW. Fourteen of the participants from phase one of the project reported that they would definitely consider IT as a career and would be discussing their experiences with fellow school students, teachers and family. The project report will assist other TAFE NSW Institutes to provide similar programs.

#### IMPROVING WOMEN'S ACCESS TO ICT SPECIFIC EDUCATION AND TRAINING

A pilot course, *WOW into IT* plans to assist women with a disability seeking to enter higher qualification level award IT courses at TAFE NSW. Teacher consultants will provide appropriate support for individual participants including learner support and mentoring. The pilot will assist with participants' transition to further IT studies or employment with focus on traineeship placement; and create links to key contacts for career transition and continued community support. By documenting critical features for success and barriers for women with a disability wishing to enter IT training and employment, the pilot will assist in the development, deployment and evaluation of a model of support for successful transition into IT. The pilot will also create a resource list of contacts in the industry and the community.

A Department of Education and Training research project investigating accessibility in online learning for women in VET will provide an information base for future planning, development and implementation of on-line materials and on-line learning. The

results of this research will inform future strategies for improving the effectiveness of delivery strategies for women. The research will focus on women learners from the target groups (for example women from culturally and linguistically diverse backgrounds, Aboriginal and Torres Strait Islander women and women with disabilities) in VET. This study will draw on information from women learners in TAFE NSW. The estimated cost of the research project is about \$25,000 with a reach of 500 women. Current research in e-learning has isolated technology and cost as inhibitors to e-learning, yet there has been no concrete data in relation to how women from equity target groups access e-learning. The project will build on the research from Stages 1 and 2 of the Flexible Learning Advisory Group (FLAG) 2000–2002 Access and Equity in Online Learning Project.

The Department of Education and Training will develop e-learning resources for women in VET to address skill needs and to provide foundation skills to assist women to adapt to new and emerging occupations. The need for this initiative was identified by TAFE NSW Institutes in consultation with the community. The online resources will include web-links, print based and multi-media learner resources for the core modules and specific core elective modules for the Certificate II in Career Education and Employment for Women and the Work Opportunities for Women. The online materials will build on existing print materials with the development of e-learning, multi-media learner resource materials. Flexible assessment materials and appropriate links to websites will be developed with a CD Rom version to facilitate delivery in community centres and in country regions where internet access may be an issue. The estimated cost of the initiative is \$50,000 with total enrolment state-wide for both courses at approximately 4,000 students.

The *Women in Information Technology Careers* project will target women who have completed higher level VET IT training through the Work Wise Women Certificate IV, IT (Client Support) to increase the number of women undertaking higher level vocational education and training for entry into employment. The project will examine the IT industry, its needs and culture. It will identify barriers to women accessing IT careers and key career pathways and establish facilitated pathways into employment for women from higher level IT training.

*Web Broadcasting: Skills for Women* at Northern Sydney Institute provided women students who were undertaking studies in Multimedia and Work Opportunities for Women with additional support to develop skills in utilising web broadcasting technologies. The first broadcast was at a Females in Information Technology and Telecommunications (FITT) function at Parliament House. Further broadcasts of events which feature women in IT will be made later in 2002. The project developed the web broadcasting skills of women students and maximised their current production skills to expand their employment outcomes. The web broadcast of the FITT function was also an effective medium to promote career opportunities in IT to women.

The Department of Education and Training state-wide \$6.5 million program *Basic Information Technology Skills* provides free computer training to mature aged people with a focus on attainment of the International Computer Driving Licence, an internationally recognised certificate of basic computer competence. The target is for 10,000 people from mature age workers, regional and rural communities and equity groups such as women, to participate in the program to increase computer skills and literacy. As at April 2002, 2,953 licences has been issued.

*The Work Wise Women: Certificate IV in Information Technology (Client Support)* is a women only course developed by the Information Technology, Arts and Media (ITAM) Division of TAFE NSW. This initiative customises a high qualification award level information technology course in a women friendly learning environment. The initiative also provides a training pathway from lower level access courses through to employment in the IT industry. The ITAM Division developed a comprehensive resource guide which assists teachers to customise the delivery of the course to women. The ITAM Division also negotiated advanced standing for Work Wise Women graduates into the Multimedia Degree offered by Southern Cross University. The course was first offered as a pilot program in 2001 to four groups of women at three TAFE NSW Institutes. A customised women only pathway in IT is now available from Work Opportunities for Women in IT to the Certificate IV in IT. Three Institutes have offered this pathway with flexible entry and exits points in 2002.

*The IT's Women's Business: Certificate I in Information Technology for Aboriginal Women* initiative originally aimed to develop a Certificate II in IT for Aboriginal Women. The introduction of the new National Training Package for IT in 2001 changed the focus of the project. The objective now is to customise IT modules to be culturally appropriate and to develop a teaching and learning resource, *'IT's Women's Business'*, to support the Certificate I course. The finalised course will be offered to groups of Aboriginal women and will provide the basis of an IT training pathway for Aboriginal women. This initiative provides the opportunity for Aboriginal Women to study IT in a culturally appropriate context and extend their employment options in this growth industry. The initiative addresses the under-representation of Aboriginal women in IT courses at TAFE NSW. An Aboriginal writer is currently developing the support resource and it is

expected that there will be an increase in Aboriginal women enrolling in IT courses at TAFE NSW.

*Reskilling women for IT* project is an action research project targeting women in public sector employment to determine how more women can be attracted, trained and placed in IT jobs within their current agency. Pilot agencies will identify IT skill gaps within the organisation, consider processes for predicting and meeting IT skills gaps, select women for bridging training and place them in IT roles with support. The model produced by the project will be transferable to other public sector agencies, helping them address IT skill gaps as well as women's low participation rate in IT employment. The initiative is being undertaken by the Department of Information and Technology Management, Department of Education and Training, Office of the Director of Equal Opportunity in Public Employment, Public Sector Management Office and Department for Women. This project addresses the low participation rate of women in IT jobs, IT skill sector shortages in some occupations in the public sector, human resource planning to meet current and future IT skill shortages and agency business plans in a cost effective way.

#### **EMPOWERING WOMEN AND GIRLS WITH ICT**

The NSW Department for Women's Grants Program is helping to put women in touch with information technology and communication by funding a number of community projects. <http://www.women.nsw.gov.au/grants/funded.html>.

The Griffith Adult Learning Association – *Skills Development for Migrant Women* project identified the needs of women from culturally and linguistically diverse backgrounds. Training in resume writing, job seeking skills and the use of computers and the internet was provided. A support network for these migrant women was established and the participants were referred to

appropriate employers or employment agencies. Newly arrived migrant women sometimes do not have the network or self esteem to seek opportunities. This project provided women from migrant communities who want to re-enter workforce an opportunity to recognise and document prior learning and existing skills and/or acquire new skills for career change. The project also increased social interaction among the migrant women and increased the women's awareness of the needs of the workforce in Australia. This assisted the participants to see where they stand, what type of training is needed for their career and how to get it.

The *e-Summer Schools*, a joint NSW Government/Industry initiative was announced by the NSW Premier on 22 May 2001. Government school students from Years 9–11 in socio-economically disadvantaged areas were targeted. The initiative provides students with an ICT learning experience that will encourage them to undertake further ICT study, to show that ICT is enjoyable and learn more about ICT careers. The Department for Women participated in the steering committee and sponsored two schools, one at Mount Druitt and the other at Walgett. The schools were held from 14 January to 1 February 2002. Each e-Summer school had about 15 students and the tuition was delivered by TAFE staff in TAFE specialist ICT facilities. E-summer Schools were designed to meet local student needs and each course included accredited ICT training, site visits or visits from ICT specialists (where possible), career information and opportunities to have fun and experiment with new technologies. 47 per cent of the participants who attended the school at Mt Druitt were girls and 86 per cent of the 15 students at the Walgett school were Aboriginal girls. Students were provided with course materials, access to information and technology resources, full tuition and a scholarship of \$500 for their attendance.

A partnership between Metroscreen, Hawkesbury Skills, Artsnet, Western Sydney ITEC and Wesley Mission is conducting *Women Out West* — a pilot project combining digital media training, business studies and work placements. The training and work placements are being carried out by diverse groups of women in Western Sydney including young unemployed women, migrant women, and older women returning to the workforce. The project has two aspects — skills development and work placement aiming to increase the women's employment opportunities in digital media and IT areas and/or generate self employment. The training has been specifically structured to suit women with child care and domestic commitments.

\$50,000 was provided through the Department for Women's 2001–2002 Women's Grants Program for the Seniors Online Strategy *Central Coast Women's IT Pilot Project*. The Council on the Ageing (COTA) is the sponsor for the project working in partnership with the Australian Seniors Computers Club (ASCCA) targeting older women in the Gosford-Wyong area. The pilot provides basic computer literacy and internet courses to older women in retirement villages, caravan parks and manufactured-home estates. Older women are being trained as trainers and a women's computer club will be established as part of the project. The project included mentor and 'Train the Trainer' sessions, basic computer literacy and internet courses. A focus of the internet courses was women's health issues and this has included the development of an Online Women's Health Module.

The *Barnardos Penrith and Family Centre Cranebrook Internet Café* targeted socially isolated and economically disadvantaged women to participate in the benefits offered by the internet such as information, communication, bill-paying and job networks while developing their knowledge and computer skills.

The women also received training on espresso coffee machines and on general points of service including cash registers, to facilitate their entry into the workforce with work experience set up as required. The project established partnerships with TAFE and local businesses for the provision of training with eight participants later acquiring the skills to act as mentors and trainers. Supported playgroups were initiated to increase the women's skills and awareness of issues such as parenting and self esteem. Ownership of the playgroups was transferred to women who had completed the mentoring program. The three playgroups are now functioning independently.

The *New England Women Developing Virtual Communities* project received funds to establish a virtual community and training forum for rural and regional women. Women were introduced to basic IT tools including email, discussion boards, on-line forums and chat to improve their access to information and services. This project was a partnership between organisations including New England Institute of TAFE, University of New England, and women's organisations across the region and the New England Women Linking in New Communities (NEWLinC) project. Trainers were employed to develop and run skills workshops in networking and building 'virtual communities' among rural/remote women using communications software on the web. A new website for women in the New England region was developed to open the door to new employment opportunities and help address gender imbalance in the information technology industry. Women developed ideas to improve economic opportunities for their families and their local communities through the NewLinC website and discussion boards. The website <http://www.newlinc.com.au> was launched in March 2001. The NewLinC project has educated women in rural and regional areas about the use of the internet, particularly in

relation to their e-business needs and has analysed the aspects of IT women need to know more about. The project has set the foundation for establishing a network to provide these services. A new non-profit organisation supporting women's online learning, 'Networking Women's Learning' (NewLinC) has grown out of the New England Linking in New Communities project and was launched in March 2002

Rocky Hall Preschool Association received funding from the Department for Women's Grants Program to provide internet access and basic computer training for women in a small isolated rural area. The women had the opportunity to enhance skills, knowledge and learning, and provide opportunity to access, find and utilise information and contacts. The women's training enabled them to develop and publish a website about the preschool <http://www.rockyhall.org/>.

The *Seniors Online Strategy – Hands on in Western Sydney* project was based in Parramatta, Liverpool, Holroyd, Fairfield and Auburn. \$50,000 was provided for the project through the Department for Women's 2001–2002 Women's Grants Program. The Local Community Services Association was the project sponsor and worked in partnership with over 30 organisations to deliver the program. The project ran 13 courses and/or computer fun days, with 125 culturally and linguistically diverse women participating. IBM donated five community access computers and Microsoft suitable software. Six community access centres were established for women to have ongoing access to computers in their communities. The project also delivered two 'Train Small Groups' courses in partnership with Macarthur Community College. Twenty five women from culturally and linguistically diverse backgrounds gained formal accreditation enabling them to run IT courses in either a paid or unpaid capacity. A small resource 'In Your

Own Backyard' was developed containing ideas, contacts and resources to help community organisations plan IT and adult education projects. The project detailed information about what the women participants and facilitators thought worked well to facilitate learning among the various groups.

### EXTENDING WOMEN'S ICT PARTICIPATION

Older people are the least likely group in society to own a computer or be connected to the internet. Only 30 per cent of people aged 55 years and over own a home computer and while statistics indicate that older people are the fastest growing age group among internet users, their numbers are still low. This issue is particularly relevant to women, as ABS data indicates that from the 65–69 age bracket, women comprise a higher proportion of the aged population in Australia.<sup>11</sup>

## NSW Government Policies

### INFORMATION MANAGEMENT AND TECHNOLOGY BLUEPRINT FOR NSW: A WELL CONNECTED FUTURE

This blueprint focuses on strategies to create accessible and responsive government services, delivered efficiently and cost-effectively to the community.

#### The Blueprint:

- ◆ Positions government agencies to use information management and technology to improve services to clients, especially where systems or data interchanges affect more than one agency.
- ◆ Includes both an agency-focused and a public sector-wide approach, with an emphasis on client service.

- ◆ Develops a framework to make it easier for the general public to access multiple government services through the concept of 'single points of service' and computer-based transactions.
- ◆ Defines ways to make it easier for the private sector to transact business with the Government to enhance the economic development of NSW and attract investment to the State.
- ◆ Establishes needs and priorities to maximise the benefit from information management and technology investments.
- ◆ Helps individual agencies get best value for the Government's substantial spending on information management and technology.

It provides the foundation to set the direction for the strategic use of ICT by NSW Government agencies [www.oit.nsw.gov.au](http://www.oit.nsw.gov.au).

### CONNECT.NSW – GOVERNMENT INTERNET STRATEGY FOR NSW

The NSW Government's internet strategy focuses on increasing the online delivery of Government information and services, providing training, support and access to IT for communities in rural, regional and metropolitan NSW, and improving inter-agency communication through IT and tailored electronic service delivery to clients. The four strategies on which *connect.nsw* are based include:

**Integrated Government** – This strategy provides the internal infrastructure and systems to integrate the operations of State Government and sets up operational links to local and federal governments and the internet.

**Electronic Service Delivery** – This strategy will progress the delivery of Government information and services using the internet. It will result in more efficient use of resources and encourage the creation of new jobs and industries. Private sector parties will be used where appropriate, to deliver services

more efficiently to the general public and NSW businesses.

**Electronic Commerce** – The strategy will progress NSW purchasing on line. The Government will develop the infrastructure for electronic commerce by introducing the legislative framework to support electronic commerce and by addressing issues such as privacy, integrity and confidentiality of personal information.

**Networked Communities** – Focusing on rural and regional NSW, the NSW Government will establish and coordinate support services to assist community groups to benefit from IT, and by setting best practice examples through a series of community projects <http://www.oit.nsw.gov.au/pages/6.1.Connectnsw.htm>.

#### **COMMUNITY TECHNOLOGY CENTRES @NSW – GETTING COMMUNITIES ONLINE**

Jointly funded by the NSW and Commonwealth Government, this initiative will establish more than 60 new Community Technology Centres (CTCs)<sup>12</sup> in regional NSW to give people better access to IT, including the internet, email, teleconferencing and e-commerce. The \$15 million initiative assists regional communities develop sustainable information technology facilities. The centres are technology resource sites for local business, students and the general community. Communities with less than 3000 are specifically targeted [www.ctc.nsw.gov.au](http://www.ctc.nsw.gov.au).

#### **INFORMATION AND COMMUNICATION TECHNOLOGY (ICT) SKILLS ACTION PLAN**

The NSW Government's *Information and Communication Technology (ICT) Skills Action Plan*, outlines New South Wales' intentions for increasing ICT skill levels in the State and ongoing programs in the private and public sector. The Action Plan includes strategies, which specifically target women and girls. Programs currently in development include an ICT skills gateway, an awareness campaign, a computer re-use program and a database of initiatives <http://www.oit.nsw.gov.au/pages/9.1.ICT-Skills.htm>.

#### **AGENCIES**

- ◆ Department for Women
- ◆ NSW Agriculture – Rural Women's Network
- ◆ Department of Education and Training
- ◆ TAFE NSW
- ◆ Office of Information Technology
- ◆ NSW Health

## Women's Lives Online

### *'I just don't know where to start...'*

When women need information or access to resources, they have to negotiate an array of agencies and service providers in the hope of finding the information and resources most appropriate to their issue. The Department for Women has repeatedly been advised and has observed that many of the most disadvantaged women lack access to services and information that would benefit them but they often do not know what questions to ask — because they do not know what is available. The Department's work with women has identified very strong interest in seamless delivery of information across all levels of government and across government and non-government organisations.

In 2001, the Department for Women obtained funding from the NSW Office of Information Technology to create a web based

resource for the life events of having a baby, separating from a partner and returning to work after an absence for family care.

The life event keys will provide access to all relevant information and services through a single web site, displaying the information and transactions in a way women want, eliminating the need to spend time searching and accessing various sites for the relevant information or forms.

The project will provide information and transactions in an intuitive way, and use plain language and consistent navigation terminology to create a comprehensive and integrated resource for women in NSW through the existing Women's Gateway

[www.womens.gateway.nsw.gov.au](http://www.womens.gateway.nsw.gov.au) (from March 2003).

- 1 Levy, W; *Why our girls are losing IT at school*. The Canberra Times, 27/3/00, pp.13–14.
- 2 Grimson, K; *Information technology: Not just a man's world*, Daily Advertiser Wagga Wagga, 30/8/01, p.25.
- 3 National Office of Information Economy, *State of play*, April 2002, Canberra.
- 4 Article 19, Universal Declaration of Human Rights.
- 5 Sinclair, J; *Where are the women? In the new economy discrimination is still a problem?* The Age, 3/10/2000, Quote by Theresa Gattung, CEO Telecom New Zealand, p.6.
- 6 as above at 1.
- 7 Australian Bureau of Statistics (2002), *Basic community profile and snapshot: New South Wales*, Cat. No. 2001.0, ABS Canberra.

- 8 Carr Labor Government, *Improving Women's Lives – Labor's plan for women in the 21st century*, 1999.
- 9 E. Newmarch, S. Taylor-Steele, A. Cumpston; *Women in IT- What are the barriers?* Network of Women in Further Education Conference – showcase of strategies for women in education on information technology conference paper, Parliament House, Department of Education Training and Youth Affairs, NSW, 22 March 2000, p.15.
- 10 as above at 1.
- 11 ACNielsen Net Ratings, 4th Quarter, 1999.
- 12 Community Technology Centres in NSW – Canowindra, Condobolin, Lake Cargelligo, Lithgow, Mudgee, Oberon, Balranald, Cockburn, Ivanhoe, Menindee, Pooncarie, Tibooburra, Wanaaring, Wentworth, White Cliffs, Wilcannia

Bulahdelah Denman Dungog Gloucester Merriwa Murrurundi Raymond Terrace/Pt Stephens, Scone, Singleton, Boorowa, Robertson, Sussex Inlet, Ulladulla, Bowraville, Kendall, Comboyne, Holbrook, Khancoban, Mathoura, Boggabilla, Guyra, Gwabegar/Pilliga, Tambar/Premer, Warialda, Walcha, Clunes, Nimbin, Mullumbimby, Brunswick Heads, Richmond River, Tweed Valley, Cobar, Coolah, Coonabarabran, Coonamble, Dubbo West, Gilgandra, Narromine, Nyngan, Walgett, Wellington Cootamundra, Ganmain, Gundagai, Hay, Temora, Tumut, West Wyalong, Braidwood, Delegate, Eden.



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**Department for Women**

Level 4, Stockland House, 181 Castlereagh Street, Sydney 2000

**Ph:** (02) 9287 1860 **Fax:** (02) 9287 1823 **Email:** [dfw@women.nsw.gov.au](mailto:dfw@women.nsw.gov.au)

**[www.women.nsw.gov.au](http://www.women.nsw.gov.au)**