

# ICTs for learning:

## An overview of systemic initiatives in the Australian States and Territories

The 1998 edition of *Australian Educational Computing Volume 2* focused upon *The State of the Nation* in terms of technology initiatives being undertaken within some of the Australian states and territories at the systemic level. An overview of State Education Department Technology initiatives in Tasmania, Victoria, New South Wales, Queensland, South Australia, and Western Australia was presented in that edition (Trinidad, 1998, pp. 4-5). *State of the Nation* reports were also provided by Tasmania (Bowes, 1998, p. 13), Victoria (Netherway, 1998, p.14), Western Australia (Weber, 1998, p. 15), and Catholic Education (1998, pp. 16-17). While the overview summarises various State initiatives and each of those reports provided some differentiation between the various State projects, there was the clear theme that all of the states were developing systemic initiatives for effectively integrating computers into schools. The overview by Trinidad (1998) highlighted that, at the systemic level, the States summarised had developed

- targets for improving the ratio of computers to students;
- professional development programs for teachers; and
- IT focused resources provided for teachers.

It is timely to reflect on that earlier edition and to provide a current snapshot of the Australian scene as substantial changes have occurred during the last five years. In particular, since that time, there has been an emerging national approach. Significantly, in July 2001 at the 12th meeting of the Ministerial Council for Education, Employment, Training and Youth Affairs (MCEETYA), an *Information and Communication Technologies in Schools Taskforce* was established. The terms of reference for that Taskforce are to:

- provide strategic advice to AESOC and MCEETYA on the use of information and communication technologies to support teaching and learning
- provide leadership to the Australian education community in the effective use of information and communication technologies
- advance the use of information and communication technologies that meet the needs of education

- initiate, implement and support national projects related to the use of information and communication technologies in education
- provide a forum for Australian education representatives to share information and advance collaborative initiatives in the use of information and communication technologies in education. (MCEETYA, 2002)

The Taskforce is required to work with the Australian ICT in Education Committee (AICTEC), provide advice to the education.au limited Board regarding strategic directions for EdNA Online and associated developments, work collaboratively with the Le@rning Federation - Schools Online Curriculum Content Initiative (SOCCI). The Taskforce will be ongoing, subject to annual review of its terms of reference by MCEETYA (MCEETYA, 2002). An action plan *Learning in an online world: the school education action plan for the information economy* (DETYA, 2000) was developed by the Education Network Australia (EdNA) Schools Advisory Group and endorsed in 2000 by MCEETYA (DETYA, 2000, p.1). The school education vision in that action plan articulated an important shared vision across all Australian States and Territories. Moreover, the action plan identified goals across five interrelated action areas; people, infrastructure, content and services, supporting policies and enabling regulation, and three high priority areas within those five action areas; bandwidth, professional development, and online content.

Thus, substantial momentum has built up in the interim between 1998 and 2002 in terms of:

- an identifiable change of focus from 'computers in schools' and "Learning Technologies" to a more commonly shared reference of Information and Communication Technologies (ICT);

**Dr GLENN FINGER**  
Griffith University  
Queensland

**Dr SUE TRINIDAD**  
Curtin University  
of Technology  
Western Australia

- development of national collaboration, strategic planning, sharing of information, and projects in the use of ICT in education;
- continuing recognition of the need for improving infrastructure;
- continuing recognition of the central importance of professional development of teachers to effectively integrate ICT into schools;
- emergence of initiatives aimed at taking advantage of the potential of connectivity and students Learning in an online world, especially through digital content initiatives.

In providing this updated overview, we acknowledge the help and information provided by key contacts whom we contacted from each of the Australian State and Territory government education systems. In addition, the role of the MCEETYA Information and Communication Technologies Taskforce in providing a mechanism for sharing information was highlighted as this overview draws heavily upon and acknowledges the excellent summaries contained in the recent MCEETYA report *Learning in an online world: the school education action plan for the information economy Progress report 2002* (MCEETYA Information Communication Technologies in Schools Taskforce, 2002). That 122 page report provides a National

report, reports from all Australian States and Territories, reports from the National Catholic Education Commission, National Council of Independent Schools' Associations, and from New Zealand. We believe that the value of the work undertaken in leading to that progress report cannot be underestimated and there is now an effective process for ongoing monitoring and reporting of systemic ICT initiatives. As Dr Martyn Forrest, Chair of the MCEETYA ICT in Schools Taskforce, indicates in the introduction to the report:

"This report provides a national overview and a summary of key achievements in the development of online content and services in each jurisdiction. Reports in following years will highlight progress in key action areas of Infrastructure (2003) and People (2004)." (MCEETYA Information Communication Technologies in Schools Taskforce, 2002, p.3)

Our task here, in presenting this overview, provides the caution that we are limited in terms of space to fully document all of the systemic initiatives for learning with ICT and readers are recommended to refer to the full text of the MCEETYA progress report (2002) and relevant links and references provided. What we have attempted to do is to achieve an update of the 1998 overview in our continuing contribution to sharing information through the Australian Educational Computing journal.

### Commonwealth Department of Education, Science and Training (DEST) Initiatives and Projects

(Source: Summarised from MCEETYA Information Communication Technologies in Schools Taskforce. (2002). *Learning in an online world: the school education action plan for the information economy Progress report 2002*. MCEETYA.)

| Initiatives and Projects  | Summary   |
|---|---|
| ■ Progress report: Learning in an online world  | ■ The Commonwealth Government promotes and supports national collaboration across school systems to achieve the goals set down in <i>Learning in an Online World</i> .  |
| ■ The Le@rning Federation – Schools Online Curriculum Initiative                                | ■ A component of Backing Australia's ability: An action plan for the future, the Le@rning Federation aims to generate online curriculum content for system delivery to schools  |
| ■ Innovation and Best Practice Project  | ■ The report <i>School innovation: Pathway to the knowledge society</i> is available at <a href="http://www.dest.gov.au/schools/publications/2001/index.htm">http://www.dest.gov.au/schools/publications/2001/index.htm</a>   |
| ■ Quality Teacher Programme (QTP)   | ■ Information technology is one of the QTP's six priority areas.  |
| ■ Models of teacher professional development for the integration of ICT into classroom practice | ■ The project report <i>Making better connections: Models of teacher professional development for the integration of ICT into classroom practice</i> is available at <a href="http://www.dest.gov.au/schools/publications/2002/professional.htm">http://www.dest.gov.au/schools/publications/2002/professional.htm</a>  |
| ■ ICT Competency Standards for Teachers   | ■ The project now complete and the report <i>Raising the Standards: a proposal for the development of an ICT competency framework for teachers</i> is available at <a href="http://www.dest.gov.au/schools/publications/2002/raisingstandards.htm">http://www.dest.gov.au/schools/publications/2002/raisingstandards.htm</a>  |
| ■ Innovative Bandwidth Arrangements for the Australian Education and Training Sector            | ■ High speed online communications is a very high priority for the education and training sector. The project report is available at <a href="http://www.dest.gov.au/schools/publications/2001/bandwidth/index.htm">http://www.dest.gov.au/schools/publications/2001/bandwidth/index.htm</a>  |
| ■ Computer Technologies for Schools   | ■ This project provides surplus Commonwealth Government computers and equipment to schools throughout Australia.  |
| ■ Technical Standards for the Education and Training Sector                                     | ■ The AICTEC established a Standards Sub-Committee to deal with standards issues relating to ICTs for education and training.   |
| ■ Performance Measures for ICT  | ■ MCEETYA, in 2001, endorsed a framework for national assessment and reporting of students' ICT skills and knowledge. MCEETYA also authorised the development of assessment instruments and key performance measures, and endorsed the national monitoring of ICT skills and knowledge of Year 5/6 and Year 9/10 students through two- or three-yearly sample assessment. |
| ■ National ICT Research Database  | ■ An online database of State, National and Commonwealth research on the use of ICT in school education has been developed.   |

|  |  |
|--|--|
| <ul style="list-style-type: none"> <li>■ International Comparison of ICT policies</li> <li>■ Effective use of ICT to enhance learning outcomes</li> <li>■ EdNA Online</li> </ul>   | <ul style="list-style-type: none"> <li>■ This project describes and analyses what governments in Australia and overseas, private education and training providers in Australia are doing in terms of ICTs and supporting transition to the information economy. This will provide a searchable, online database available through EdNA Online.</li> <li>■ Due for completion in mid 2002, this project seeks to identify effective ICT of disadvantaged students practices and how they can be used with disadvantaged students to enhance learning outcomes.</li> <li>■ EdNA Online website is available at <a href="http://www.edna.edu.au">http://www.edna.edu.au</a>, and is managed by education.au.limited which is a non-profit company owned by the State, Territory and Commonwealth Ministers for Education and Training. This website provides a portal for an extensive range of quality services and resources to facilitate a network of Australian educators.</li> </ul>  |
| <b>State/Territory - Education System</b><br>The target ratio of computers to students and connectivity  | <b>Summary of systemic projects to support ICTs for learning - incorporating staff professional learning programs</b>  |
| <b>QUEENSLAND</b><br><b>- Education Queensland</b><br><br>The systemic student to computer ratio improved from 6.6:1 to 6.1:1 over 12 months from 2000 to 2001. In secondary schools, the systemic student to computer ratio was 4.6:1. Schools report that, in 2001, 66.2% of curriculum computers had access to the managed Internet service. Education Queensland has set a target of 1 computer for every 5 students by 2005. ( <a href="http://education.qld.gov.au/corporate/qse2010/pdf/draft-action-2010.pdf">http://education.qld.gov.au/corporate/qse2010/pdf/draft-action-2010.pdf</a> )<br><br>All Education Queensland schools are part of the Wide Area Network, each with either full cabling or a network starter kit installed. | <b>Staff professional learning programs</b><br><b>Learning and Development Foundation</b> facilitates learning programs. ICT related professional development initiatives included: <b>Quality Teacher Program</b><br><b>Learning and Development Centres (Technology)</b> were established to provide professional development for teachers.<br>Other initiatives include:<br>The establishment of 8 <b>Technology, Maths and Science Centres of Excellence</b> .<br><b>The Minimum Standards Learning Technology</b> requires all teachers to have attained these standards.<br><b>The Information and Communications Technology Continua</b> (draft form) provide scaffolds for personal learning and development plans that incorporate ICT ( <a href="http://education.qld.gov.au/curriculum/learning/technology/cont.html">http://education.qld.gov.au/curriculum/learning/technology/cont.html</a> )<br><b>Education Queensland's Website</b> ( <a href="http://education.qld.gov.au">http://education.qld.gov.au</a> )<br>Redesigned to improve teacher and student access to online resources. The Curriculum Exchange, for example, has ICT resources - <a href="http://education.qld.gov.au/tal/curriculum_exchange/ict/">http://education.qld.gov.au/tal/curriculum_exchange/ict/</a><br><br><ul style="list-style-type: none"> <li>■ <b>ICTs for Learning Strategy</b> (<a href="http://education.qld.gov.au/ictsforlearning/">http://education.qld.gov.au/ictsforlearning/</a>)<br/>             Aims to assist Queensland state schools to integrate information and communication technologies (ICTs) into teaching, learning and the curriculum. It is part of the Queensland government's Education and Training Reforms for the Future (ETRF) package.</li> </ul> <b>Key Features:</b><br>Benchmarking, Core Schools Program, Priority Schools program, Innovation, Excellence and Improvement program<br><b>Systemic Projects to Support ICTs for Learning:</b><br>School ICT Profile Project, Performance Measures Project, Systemic Procurement and Service Delivery Project, ICT Support, Online Examples of ICT Curriculum Integration, Community Access to ICTs in Schools, Learning and Development Centres (Technology), and The Learning Place.<br><br><ul style="list-style-type: none"> <li>■ <b>Education Queensland's Information Technology Board</b><br/>             Established as a high-level strategic action group</li> <li>■ <b>Digital Content Initiatives</b><br/>             Accessed produces digital content. Edulist is a collection of reviewed Internet sites. The Digital Resource Centre service is a key element and manages the Curriculum Exchange and Professional Exchange. Virtual Schooling Service has developed a range of digital content for some Year 11 and 12 subjects. Education Queensland actively promotes EdNA Online and Education Queensland schools are participants in EdNA sponsored online collaborative projects such as Netdays and OZProjects.</li> <li>■ <b>BYTE Awards</b><br/>             Established to recognise excellent student achievement in ICTs and developing partnerships with industry leaders and universities.</li> <li>■ <b>Blackboard5</b><br/>             Adopted as the <b>Standard e-learning Platform</b>.</li> <li>■ <b>Managed Internet Service Steering Committee</b><br/>             Established to enhance communications between schools and the Internet Service Provider.</li> </ul> |
| <b>NEW SOUTH WALES</b><br><b>- New South Wales Department of Education and Training</b><br><br>The Department will provide all students and teachers with email accounts   | <ul style="list-style-type: none"> <li>■ <b>Staff professional learning programs</b><br/> <b>The Technology in Learning and Teaching (TILT) program</b><br/>             Provides training and development for teachers in the use of ICTs. Funding for 2001/2002 over 2 years to continue TILT and TILT Plus, an advanced program for teachers, school executive and specialist staff.<br/><br/>             TILT by CD is a 30 hr beginner's program for teachers.</li> </ul>  |

| <b>State/Territory - Education System</b><br>The target ratio of computers to students and connectivity  | <b>Summary of systemic projects to support ICTs for learning</b><br><b>- incorporating staff professional learning programs</b>   |
|--|---|
|  | <p><b>Net Returns Online</b><br/>A generic program for school executive and teachers to develop information skills and critical literacy strategies which can be applied to the Internet.</p> <p><b>VITAL Support Online (Values in Information Technology and Learning)</b><br/>Promotes effective teaching and learning strategies for values related issues emerging from IT in Yrs 1-10 and across all curriculum areas.</p> <p><b>Leadership and Technology in Education (LAtTE)</b><br/>PD program aimed at assisting educational leaders to develop critical and practical knowledge base in the use, management and future of technology.</p> <p><b>LIST (Leaders in School Technology)</b><br/>For Principals and executive staff who are not confident users of technology.</p> <p><b>Network Administration</b><br/>Designed to assist schools in running a computer network within a school environment.</p> <p><b>EdNA Online</b><br/>Publicises EdNA Online in schools and TAFE.</p> <p><b>Online Content</b><br/>Developing a range of projects to provide online learning resources for students.</p> <p><b>Involvement in state and national collaborative online projects</b><br/>Examples include Webquests being developed for French, German, English, PDHPE, Science and Modern History, online communications projects that meet syllabus outcomes for English, Creative Arts, Maths and Languages (<a href="http://www.curriculumsupport.nsw.edu.au/learningtechnologies/window/index.htm">http://www.curriculumsupport.nsw.edu.au/learningtechnologies/window/index.htm</a>), Annual Schools Web Design Awards, Newsday, Netd@ys Australia 2001</p> <p><b>ISP Project</b><br/>Will provide email accounts for all staff and students, filtered access to the Internet, web hosting facilities for schools and colleges, chat and discussion forum services, remote access to the service from any location that has Internet facilities, and 24 hr support service for technical issues.</p> <p><b>Broadband Telecommunication Services</b><br/>2002/2003 NSW State Budget provides enhancement of \$247 million over 4 years to implement broadband telecommunications</p> <p><b>KIDMAP curriculum outcomes management software</b><br/>Has been made available to schools through a system-wide licence.</p> |
| <b>TASMANIA</b><br>- Tasmanian Department of Education   | Several systemic projects are in place that are school/cluster focused as the main means for delivery, including the following projects.  |
| <p>The state has not set a student computer ratio to be achieved by schools.<br/>A ratio of 1 to every 4.8 students of computers less than five years old has been attained.</p> <p>All schools are connected to the Internet with minimum bandwidth of 64kbs for each school.</p> | <p><b>Access Arcade</b> - 'Access Arcade' is one of the programs proposed in the <i>Students with Challenging Behaviour</i> Strategic Plan 2002-2003. Its purpose is to respond to an expressed need of those working with students with challenging behaviours for online resources, services and programs.</p> <p><b>Action IT</b> - The Open-IT Project was a Commonwealth-funded project in 1999-2001 to develop online content. The purpose of this project is to: study the effective use of the Open-IT modules in teaching and learning; inform us about how learners learn online using the Open-IT modules; identify how online learning using Open-IT modules is integrated into classroom practice; identify effective teaching and learning practices using these modules; and raise questions and inform our understanding of what happens when teachers and students use the Open-IT modules to create new online dimensions for learning in the school or cluster environment.</p> <p><b>Collaborative Web Project</b> - Tasmanian teachers have increasingly gained technical skills associated with ICT over the past 4-5 years. The Collaborative Web Project assists teachers to learn about and focus on the use of existing quality web resources in their practices and use ICT skills in their teaching and learning practices. This approach aligns with the move in current educational practices toward Project Based Learning and the development of the Essential Learnings as the Tasmanian Curriculum Framework, and uses authentic and relevant learning projects.</p>  |



The Collaborative Web Project aims to assist teachers to transform teaching and learning in their classrooms and schools. In terms of the Essential Learnings, the Collaborative Web Project explicitly aligns with the key strands, Thinking and Communicating.

**e-magine Online Campus 2002** - The e-magine Online Campus is managed by the e-magine Centre of Excellence in Online Learning. It supports, and in some cases facilitates and coordinates, the delivery of online programs. Classes are linked by *Online Classrooms* creating online learning communities. Teachers may deliver programs to students in their own regular classroom and to students in other places.

Delivery is not from a central institution to remote locations. Programs are delivered within and between schools and colleges in a distributed delivery model. This may take the form of cross-school delivery, or an on campus flexible delivery model.

**First Clicks** - There remains considerable confusion and many pre-conceptions about the interaction of young children with ICT. Exploring the pedagogical and educational aspects of ICT in pre-compulsory and early childhood schooling may assist in overcoming this. In Tasmania, there is currently no baseline data or research that looks at the underlying beliefs about the use of ICT in the early years of children's education. First Clicks is a pilot project to inform e-magine, the Department and educators about: the development of computer literacy in children, specifically aged 3 to 7 years; and using research to inform effective program delivery and materials acquisition and development with a focus on higher order thinking.

**Project Based Learning Using Multimedia** - This project focuses on whole school reform through the use of ICT; and changes in teaching and learning strategies for ICT rich environments in secondary schools.

**InnoV8 Project** - This is a research-based project whose aim is to investigate a large range of innovative technologies that can be used in the classroom. Included in the investigation will be a process of rationalisation and application of these technologies into existing classroom practice, as well as examining ways of creating innovative classroom practice enabled by these new technologies.

**Integrating Literacy and Technology Project** - When technology is available and used in an appropriate and skilled way, it can enhance student literacy outcomes. The overall academic progress and capacity to engage fully in learning by students who reach years 7 and 8 is affected by their literacy difficulties which may be medium to severe. Materials that schools can adopt, adapt and develop in a fast and efficient manner and can be customised for individual students are urgently required by teachers of such students.

**Innovations Online Continuation of Innovations Online in 2002** - will support schools to further develop understandings of online curriculum and teaching pedagogy, which integrates ICT into classroom practice, and examine links with Essential Learnings, the new Tasmanian curriculum, in the context of curriculum review

**Student Internet Gateway** - Following research into the web publishing activities of the Department of Education, it became evident that the majority of the web publishing resources of the Department were directed to servicing the needs of teachers in the business of delivering educational services. There was no central program or support directed to servicing the needs of students in educational activities separate from the teacher-directed programs.

A gateway is a 'service that provides links to other sources to support systematic searching for resources in a particular field' - in this case, education. Gateways are intended to facilitate resource discovery by their target audience (in this case, students) - to help users find what they need via the Internet. 'An additional feature frequently associated with gateways is the conscious cultivation of a collaborative community or network of users with common interests and needs.' Quality control is a feature of exemplary gateways.

The Student Internet Gateway will be aimed at students in grades 3-12 who are enrolled in Tasmanian schools and colleges and independent learners in this age group.

**The approach used for ICT professional development for teachers, strategic initiatives etc**

- **e-magine, the Centre of Excellence in Online Learning** has been established, with one of its key roles to co-ordinate PD statewide;
- **The In-school Resource Teacher (IRT) Program** was formulated to provide direct, in-time support to all teachers in the state system. The IRT program is based around 5 units and the delivery and assessment of these for all teachers. The IRT is responsible for running courses, workshops or conducting recognition of competence assessments.

The units are: Unit 1 - Introducing basic computer concepts; Unit 2 - Use of an application in an educational context; Unit 3 - Internet and email use in the classroom; Unit 4 - Multimedia and web page construction; Unit 5 - Integrating ICT in the classroom / Online Teaching and learning and leadership. The IRT Program has now over 350 teachers qualified to run courses and make assessments in their schools. Their role is central to the success of developing a sound skills base in all schools. It will be even more important in developing a conceptual understanding of ICT integration as it is embedded into a teacher's program.

- **Online Mentors** are being trained to undertake and assist colleagues to undertake online teaching and learning across the state. The PD program comprise the following structure: A series of online modules and experiences including: Introduction to Online Learning; Design an Online Program; Deliver an Online Program and Online Assessment

A number of workshops including: Discover Online Services; Design an Online Programs or Project; and Online Assessment. The Units are being embedded in the Bachelor of Teaching and Bachelor of Education degrees for pre-service teachers at the University of Tasmania. An extensive leadership program has been developed with Principals and District Superintendents to lead ICT integration in schools and colleges. The Graduate Certificates: **Computing for Teaching and Learning**.

|   |   |
|---|---|
| <p><b>TASMANIA (continued)</b></p>  | <p>This certificate is now being offered to teachers throughout the state. A significant support structure is in place to encourage teachers to undertake this qualification.</p> <p><b>Information Management</b> A certificate is being developed</p> <p>■ A range of Professional Learning activities have been undertaken, linked to specific projects being undertaken by e-magine, such as:</p> <ul style="list-style-type: none"> <li>• "First Clicks" – working with teachers in pre-school and ECE area;</li> <li>• "Access Arcade" – working with support service staff and teachers working with students at risk;</li> <li>• "Collaborative Web Projects" – working with teachers to develop understanding and skills associated with project-based learning using multimedia;</li> <li>• "Ad Astra" – working with teachers of gifted students to access materials, chats and forums for students online; and</li> <li>• "Virtual Bridge Project" – working with students to implement 6-7 transition programs online.</li> <li>• Action IT Project involving 66 teachers</li> <li>• Innovations Project to support and showcase innovations in the use of ICT in teaching and learning</li> <li>• PBL Using Multimedia</li> </ul>   |
| <p><b>VICTORIA</b></p> <p>– Victorian Department of Education<br/>Employment and Training</p> <p>The target of 1:5 computer to student ratio was achieved in late 1999 ahead of the June 2000 target.</p> <p>Estimated Ratio for all schools:</p> <p>February 2000 1: 4.65<br/>February 2001 1:4.31<br/>2002 1:3.93</p> <p>100% of schools have had web access since 2000 and every school has the infrastructure implemented to enable them to connect to the Internet</p> <p>(Source: 1996 Computers in Schools Survey, 1997-1998 DE&amp;T Unpublished Estimates (calculated April 1999), September 1999 Computer Census, DE&amp;T February 2000 Computer Census, DE&amp;T February 2001 Computer Census)</p> | <p><b>Staff professional learning programs</b></p> <p>a) Online Primary Science, Online Science Extended Professional Development program, DEET/IBM Reinventing Education, Teacher Professional Development Project</p> <p>b) At the interface: Women, leadership and technology is a DE and T leadership and succession planning program for women aspiring to be principals, assists participants to take on leadership roles in ICT and ultimately principal positions in schools.</p> <p>c) VPS Online – self paced training in Microsoft Office products supplied by GSAT for all central staff, just in time assistance and full scale training programs..</p> <p><b>Computers in Schools</b> (<a href="http://www.sofweb.vic.edu.au/itb/lnits/COMPUTERS.HTM">http://www.sofweb.vic.edu.au/itb/lnits/COMPUTERS.HTM</a>)<br/>The 2001-2002 state budget has provided \$13 million dollars under the Bridging the Digital Divide Initiative and \$10 million from the Modernisation of ICT in Secondary Schools for the purchase of computers.</p> <p><b>Bridging the Digital Divide</b> (<a href="http://www.sofweb.vic.edu.au/itb/lnits/bdd.HTM">http://www.sofweb.vic.edu.au/itb/lnits/bdd.HTM</a>)<br/>Ensures equity of access to information and communication technology for all students, regardless of socio-economic or geographic disadvantage. The project aims for all schools to attain a computer to student ratio of 1:5. All schools to undertake additional networking for improved Internet access. Provision of computers to enhance distance education for students.</p> <p><b>Modernisation of ICT in Secondary Schools</b> (<a href="http://www.sofweb.vic.edu.au/itb/lnits/Mod.htm">http://www.sofweb.vic.edu.au/itb/lnits/Mod.htm</a>)<br/>Provided funding to enhance e-learning by renovation and modernisation of ICT facilities through facilities for purpose built ICT access pods, for networking for the purpose built ICT access pods; and for computers.</p> <p><b>Notebooks for Teachers and Principals Program</b> (<a href="http://www.sofweb.vic.edu.au/itb/lnits/Nft.htm">http://www.sofweb.vic.edu.au/itb/lnits/Nft.htm</a>)<br/>This initiative aimed to support and encourage principals and teachers to effectively integrate the use of learning technologies into the classroom and administrative practices of schools. In return for receiving a notebook, principals and teachers are expected to demonstrate a commitment to ongoing professional development in the use of Learning Technologies.</p> <p><b>Surplus Computers to Schools Project</b> (<a href="http://www.sofweb.vic.edu.au/itb/lnits/Surplus.htm">http://www.sofweb.vic.edu.au/itb/lnits/Surplus.htm</a>)<br/>The distribution of in excess of 5,500 surplus computers per annum at no cost to schools.</p> <p><b>ICT Products and Services Agreements</b> (<a href="http://www.sofweb.vic.edu.au/itb/lnits/Products.htm">http://www.sofweb.vic.edu.au/itb/lnits/Products.htm</a>)<br/>The main goal of this initiative is to aggregate the purchasing power of schools, TAFE Institutes, Adult Community Education (ACE) Organisations and Department offices.</p> <p><b>Digital Content Initiatives</b></p> <p><b>The Victorian Education Channel</b> (<a href="http://www.education.vic.gov.au">http://www.education.vic.gov.au</a>)<br/>A discovery portal provides students and teachers with access to high quality online resources. It is designed to be operable and complement national online content initiatives such as EdNA Online and SOCCI.</p> <p><b>Schools Website</b> (SOFWeb – <a href="http://www.sofweb.vic.edu.au">http://www.sofweb.vic.edu.au</a>) is the primary website for Victorian schools.</p> <p><b>Victorian Curriculum and Assessment Authority Website</b> (<a href="http://www.vcaa.vic.edu.au">http://www.vcaa.vic.edu.au</a>)</p> <p><b>IdeaBank</b> (<a href="http://www.sofweb.vic.edu.au/ideabank/">http://www.sofweb.vic.edu.au/ideabank/</a>)</p> <p><b>Curriculum@work</b> (<a href="http://www.sofweb.vic.edu.au/catw/">http://www.sofweb.vic.edu.au/catw/</a>)</p> <p><b>ICT Careers</b> (<a href="http://www.sofweb.vic.edu.au/itcareer">http://www.sofweb.vic.edu.au/itcareer</a>)</p> <p><b>Successful Implementation of Learning Technologies (SILT)</b></p> <p><b>The Virtual Research Institute</b> (<a href="http://www.eduweb.vic.gov.au/sofweb/science/vri">http://www.eduweb.vic.gov.au/sofweb/science/vri</a>)</p> <p><b>ELearning Planning Guide</b> (<a href="http://www.sofweb.vic.edu.au/ly/pguide">http://www.sofweb.vic.edu.au/ly/pguide</a>)</p> <p><b>Involvement in state and national collaborative online projects</b><br/>Examples include Global Classroom Projects (<a href="http://www.sofweb.vic.edu.au/gc/">http://www.sofweb.vic.edu.au/gc/</a>), Bringing Australia Together (<a href="http://www.sofweb.vic.edu.au/fed100">http://www.sofweb.vic.edu.au/fed100</a>) and 24 Hours in the Life of Victoria.</p> |

|  |  |
|--|--|
| <p><b>VICTORIA (continued)</b></p>   | <p><b>curriculum@work</b> is a CD-ROM which has been distributed to teachers across Victoria. It contains teaching &amp; learning resources linked to CSF II and key DEET initiatives. (<a href="http://www.sofweb.vic.edu.au/catw/index.htm">http://www.sofweb.vic.edu.au/catw/index.htm</a>)</p> <p><b>VicOne Statewide Wide Area Network.</b> The VicOne Wide Area Network (WAN) consists of a broadband core and a minimum 64Kbps link to each school and to DE&amp;T corporate offices. It facilitates the delivery of a range of services re-engineering the way education is delivered in Victoria. VicOne provides the infrastructure to support electronic communications between schools. Education is the largest customer to this whole of Government wide area network (WAN), with all primary, secondary, and other Educational sites throughout Victoria connected to the network. (<a href="http://www.sofweb.vic.edu.au/itb/Inits/VicOne.htm">http://www.sofweb.vic.edu.au/itb/Inits/VicOne.htm</a>)</p> <p><b>Software Rolling Fund.</b> The Software Rolling Fund makes available software titles widely used in Victorian educational institutions at significantly reduced prices. Purchasing software from the Software Rolling Fund will result in savings of at least 25% off the Recommended Educational Price. The program will operate in addition to the present Microsoft and AntiVirus software licensing agreements, which provides software licences either free or at a reduced cost to Victorian Government schools. All Victorian schools (including Catholic and Independent) TAFE Colleges, ACE providers and Universities are able to purchase from the Software Rolling Fund. (<a href="http://www.sofweb.vic.edu.au/itb/srf/index.htm">http://www.sofweb.vic.edu.au/itb/srf/index.htm</a>)</p> <p><b>Schools' Television.</b> Schools' Television is an educational initiative of the Department of Education and Training in Victoria. It is a satellite-delivered television network on the Optus Aurora platform. All primary and secondary government schools in Victoria, have been provided with satellite dishes and decoders. These enable them to receive interactive television programs that aim to meet the needs of students and school communities all over the State. (<a href="http://www.sofweb.vic.edu.au/schoolstv/index.htm">http://www.sofweb.vic.edu.au/schoolstv/index.htm</a>)</p> <p><b>The Telematics Project.</b> 84 schools in remote areas of Victoria are using Telematics and desktop videoconferencing technology and shared mobile technology resources, ShareTeks, to offer a broad curriculum to all students. The Telematics program uses computer conferencing, audiographics/videoconferencing, and facsimiles to create a "virtual classroom" in which small groups of students in remote schools are linked to expert teachers for lessons. (<a href="http://www.sofweb.vic.edu.au/lt/telemat/index.htm">http://www.sofweb.vic.edu.au/lt/telemat/index.htm</a>)</p> <p><b>EduMail Electronic Mail Service.</b> Electronic mail system provided to in excess of 59,000 staff in Victorian Government Schools and around 2000 Departmental staff.</p> <p><b>EduLibrary Document Retrieval</b><br/>EduLibrary is the Department's on-line library of major Department publications, including official Departmental mail, publications and many other electronic resources.</p> <p><b>det@work Intranet for Corporate Users</b><br/>The det@work Intranet is a secure website providing resources for corporate users. It provides access to information, weblinks, forms and online business applications to assist corporate users to carry out their work in an online environment.</p> <p><b>Technical Support to Schools Program</b><br/>The Technical Support to Schools Program (TSSP) provides ongoing technical support to schools to assist with their expanding and increasingly complex learning technologies environments. Assistance is provided at two levels - one component being Routine and Operational support, for which schools receive direct funding, and the other Specialist Technical Support, being delivered through 290 contractors across the state. (<a href="http://www.sofweb.vic.edu.au/itb/Inits/Tsi.htm">http://www.sofweb.vic.edu.au/itb/Inits/Tsi.htm</a>)</p> <p><b>The CASES 21 Project.</b> The CASES21 Project has been initiated to redevelop CASES (Computerised Administrative System Environment in Schools) to provide automation to the majority of more than 160 business processes operating within Victorian Government Schools as compared to the 40 school processes currently supported through CASES.</p> <p><b>access@schools.</b> The Department of Education, Employment and Training has received funding from Multimedia Victoria, Department of State and Regional Development to enable schools in regional and rural Victoria to provide their local communities with free or affordable access to the Internet and to their information and communication technology (ICT) facilities. Up to \$9,000 per school is being provided to 146 schools. (<a href="http://www.sofweb.vic.edu.au/itb/access/index.htm">http://www.sofweb.vic.edu.au/itb/access/index.htm</a>)</p> <p><b>EduMail.</b> The EduMail service, established in 1998, is an electronic messaging system that is available to over 60,000 staff and teachers in Victorian Government schools and Departmental sites. (<a href="http://www.sofweb.vic.edu.au/itb/Inits/EduMail.htm">http://www.sofweb.vic.edu.au/itb/Inits/EduMail.htm</a>)</p> |
| <p><b>AUSTRALIAN CAPITAL TERRITORY</b></p> <ul style="list-style-type: none"> <li>- Australian Capital Territory Department of Education and Community Services</li> </ul> <p>The target ratio of 1:5 has been exceeded with a ratio 1:4.5 achieved in 2001.</p> <p>No new targets have been set.</p> <p>EduNET is a Wide Area Network linking schools and central office. All ACT schools are to be connected to the new TransACT broadband network within the next two and a half years. This will provide students, teachers and administrators access to the World Wide Web.</p> | <p><b>Staff professional learning programs</b></p> <p><b>Quality Teacher Program</b> is comprised of:</p> <p><b>Curriculum Integration Model-</b> a professional learning model which involves teachers working in collaborative school-based teams. CIM addresses curriculum issues with a direct focus on ICT in curriculum, not ICT skills training. Specific unit description and links can be accessed at <a href="http://www.decs.act.gov.au/services/qtp_index.htm">http://www.decs.act.gov.au/services/qtp_index.htm</a></p> <p><b>Science Learning</b> - focussed on the development of science teachers' knowledge and skills to support science learning, which included learning about ICT, based applications.</p> <p><b>Mathematics Learning</b> - teachers learning about recent developments in mathematics curriculum to enhance pedagogy in line with current research. The use of ICT and its application is incorporated into the training package.</p> <p><b>Central Courses</b> - courses are offered in a wide range of applications ranging from network administration to using applications to support thinking processes of students.</p>   |

**AUSTRALIAN CAPITAL TERRITORY**  
 (continued)

**IT Consultancies** - professional learning for individuals and groups is delivered through consultancies on the basis of meeting a specific need. Consultancies range from short courses to ongoing detailed work on integration of ICT into the curriculum.

**Guest Workshop Presenters** - guest presenters support professional learning in ICT.

**Schools ICT Plan 2001 Expansion Pack** - has been created to assist schools as they continue to develop staged and progressive pathways towards the effective integration of Information and Communication Technologies into learning and teaching.

**Online Resources for Teachers** include:

**International Computer Driving Licence** - ICDL training software has been deployed for all staff. Staff can use ICDL training to upgrade their skills using most common desktop programs, progressing through seven modules and can access five minutes here-&-now help, as they require it.

**Information Access Training Through Webezy** - this software has been provided online to improve information literacy skills to further the strategy to provide more resources and services available online for use as a just-in-time training and user education.

**WebCT** is a learning management system, which provides opportunities for writing original online courses for teacher training and professional development. DEYFS has purchased this software with a view to expanding its capacity to deliver customised online professional development to teachers in the ACT.

**Software Testbed** - provides access for teachers to test education related software for the purpose of evaluation and possible purchasing. Reviews of the software products are added to the Digital Resource Databank.

**ACTivATED** - a website for teachers and a system gateway, is a new portal for ACT teachers. It operates as a site for information, resources, training, collaborative projects, examples of best practice and useful ideas for teachers to build upon their own teaching practice. ACTivATED contains a variety of functional areas which are driven by purpose built software. These include an online library catalogue, a resource databank and an online learning delivery platform called WEBCT. ACTivATED will be the discovery and delivery mechanism for digital resources provided through the Learning Federation's SOCCI project.

**Projects to support the development or delivery of learning materials online**

DEYFS provides E-Learning Coaches for both the primary and secondary sectors. The Coaches focus on integrating information communication technology (ICT) into teaching and learning.

**School Officer IT Projects**

Funded to liaise with schools on infrastructure development and network design appropriate to schools' specific environment and ICT plan.

**E-Learning Unit**

Established within the department to provide support and expertise to schools. Web publishing, information mapping, instructional design and digital development expertise as well as the ability to communicate and implement ICT integration ideas has enabled schools to gain confidence and provided a platform for online publishing of educational resources.

**ICT Strategic Plans**

ACT Schools write their own ICT Strategic Plans within a system wide framework.

■ **Centre for Teaching and Learning Technologies**

Has been established to coordinate the department's approach to professional learning and to develop schools' use and integration of new technologies.

■ **Data Gathering through IT Survey**

The department, in partnership with the Principals' Associations, has commissioned a survey on teacher professional development needs and preferences.

■ **Computers for Teaching Program**

A program to provide PCs and laptops for teachers began during term 1 2002. The replacement computers have a much higher technical specification and support arrangement than the previous rollout in 1998.

■ **Extranet**

The department's intranet of corporate information and services is available to all school and office staff as an extranet through the World Wide Web. It can be accessed at work and at home.

■ **Wide Area Network**

EduNET is a Wide Area Network linking schools and central office. The previous low bandwidth network which has been in place for some time is being replaced by 2 - 5 MB broadband connection through TransACT

■ **Canberra Schools on the Net (CSN)**

Continues to provide a low cost, filtered and secure Internet service to schools, staff and students.



|  |  |
|--|--|
| <p><b>SOUTH AUSTRALIA</b></p> <p>- South Australian Department of Education and Children Services</p> <p>Government objective of 1 computer for every 5 students achieved in early 2001</p> <p>Internet access and telecommunications with all schools at least 128K and schools of more than 675 students with 256K</p>   | <p><b>DECStech 2001 Project: 1997-2001</b></p> <p>e-learning Project : 2002-2005</p> <ul style="list-style-type: none"> <li>■ Internet access and telecommunications with all schools at least 128K and schools of more than 675 students with 256K</li> <li>■ subsidised Microsoft suite of products for all schools and preschools, including home access for teachers</li> <li>■ antivirus software</li> <li>■ central Customer Support Centre</li> <li>■ 17 locally based District Support Officers</li> <li>■ Desktop Computer Subsidy Scheme ranging from \$500 to \$1 000 per computer over three years</li> <li>■ support for local area networks in schools through grants for cabling and provision of switches</li> <li>■ support for introduction of 'thin client/terminal server' solution in several large schools</li> <li>■ Palm Pilot trial for student attendance occurred during Term 4 2001</li> <li>■ Four new products called DUX Assistants, linked to EDSAS (school administration system) distributed to schools: Student View greatly enhances the accessibility of all data in EDSAS; Attendance Manager significantly reduces the daily data entry time for student absences and provides additional functionality in data analysis and daily absence checking; Administrator Manager and Reports Manager assist school administration staff to manage the other Assistants</li> <li>■ provision of laptops to preschool directors for administration</li> <li>■ ICT as Essential Learning in SA Curriculum Standards and Accountability Framework (birth to Year 10)</li> <li>■ IT Certificate I available to all students</li> <li>■ AchieverSA (learner achievement software)</li> <li>■ establishment of annual ICT Innovators Awards for schools and preschools</li> <li>■ participation in national online projects eg NetDays, Bloke on a bike</li> </ul> <p><b>Discovery Program: 1999-2001</b></p> <ul style="list-style-type: none"> <li>■ 6 Discovery Schools</li> <li>■ 20 Discovery Network Teachers each year</li> <li>■ 3 Global (rural) Discovery Schools</li> <li>■ Early Years Network</li> <li>■ Overseas study tours</li> <li>■ Principals leadership course</li> <li>■ Technology School of the Future courses for teachers</li> <li>■ Masterclasses</li> <li>■ Findings published from 8 research projects based on Discovery Program</li> </ul> |
| <p><b>NORTHERN TERRITORY</b></p> <p>- Department of Employment Education and Training</p> <p>The LATIS rollout provided 1 computer for every 10 students, achieving a ratio of 1:6 for all school students. No new targets have been set.</p> <p>Every school in the Northern Territory has been connected as part of a virtual private network including the provision of a satellite dish and full network cabling.</p> <p>The Department has provided infrastructure that enables schools to provide all students and teachers with e-mail accounts and Internet access.</p> <p>From the beginning of 2002, every school in the Northern Territory has a standard operating environment, and its hardware and ICT services are managed centrally.</p> | <p><b>Staff professional learning programs</b></p> <p><b>Strategic and leadership development branch</b> facilitates learning programs. ICT related professional development initiatives include:</p> <p><b>Quality Teacher Program</b></p> <p>The Northern Territory's QTP Program aims to :</p> <ul style="list-style-type: none"> <li>■ Develop collaborative and inclusive programs for targeted teachers in schools across the Northern Territory.</li> <li>■ Endorse critical self-reflection and the process of change as leading edge contributions towards strengthening Northern Territory schools.</li> <li>■ Strive for and celebrate teaching excellence.</li> <li>■ Map quality teaching practice.</li> </ul> <p><b>Learners for the Future</b></p> <p>Initiatives under this program include:</p> <ul style="list-style-type: none"> <li>■ <b>Lighthouse Schools</b> and associated Professional Development Centres have been established to provide access to learning opportunities for teachers wanting to gain experience and understanding of effective ways to use learning technologies to improve student learning outcomes. The projects are designed to support principals, leaders and teachers to explore strategies for transforming teaching and learning in classrooms and across a whole school. Seven Innovative Learning Technology Facilitators are a resource for schools and educators, providing professional development advice, demonstrating and supporting innovative learning practices and promoting and assisting professional educational communities use of ICT.</li> <li>■ The <b>Technology Enhanced Curriculum Classroom (TECC)</b> Project which aims to enhance student learning outcomes by improving teaching practice through the purposeful engagement of learning technologies. Each government school in the Northern Territory is able to nominate one or two teachers to participate in this project between 2001-2004.</li> </ul>   |

## NORTHERN TERRITORY (continued)

Participants are allocated ERT days in order to undertake professional development in teaching and learning in information and communication technology (ICT) and to provide support for other teachers in the use of ICT.

- **Learning and Technology Courses:** Courses that will provide educators with the opportunities to develop skills and networks to successfully integrate information communication technology into the curriculum. In addition, course participants will learn appropriate skills and strategies to become 'life long learners'.

**Information Technology Services Branch** oversees the delivery of online services to Northern Territory schools. This includes:

**SAMS:** The SAMS project aims to replace the existing administration system in NT schools, and to implement a Student Administration Management System in all government schools within the Territory. This will allow for the standardisation of data being collected between schools and will also ensure there is an easier method for tracking and collating school data.

**Curriculum Resource Repository:** This project will implement a Resource Repository that will allow teacher access via Internet browsers. The Curriculum Resource Repository (CRR) will be available through the NT Schools Portal and will allow teachers to access, search, retrieve and submit units of work associated with the NT Curriculum Framework (NTCF). The CRR will link to a Curriculum Framework Planning Tool (e-tool) by which teachers may harvest useful resources to assist in delivering learning programs and facilitate the delivery of learning outcomes that are planned for the students.

**e-Learning:** The Northern Territory has completed a twelve-month e-Learning trial (utilising Janison Solution's Web Toolbox) involving the three schools of distance education and targeting key office-based staff. The trial has highlighted the many possibilities and opportunities available through e-Learning for the creation and delivery of original online courses for students and teacher and professional development. DEET has purchased this software with a view to expanding its capacity to deliver customised online courses and communication structures to the NT education community.

**Portal:** The NT Schools Portal and associated infrastructure provides right of entry to all local school and Internet-based services and content within the Northern Territory education network. The Portal environment delivers students, teachers and other DEET staff with access to a range of services from both the Internet, [ie external to the education network - from home via their Internet Service Provider] and from within the school. Consistent with the philosophy of access anywhere anytime, teachers and students are able to securely access personal and shared directories, e-mail, and other resources housed on their schools server from any location in the World.

**Software Bank Scheme:** The LATIS Software Bank has been established to enable schools to access a range of educationally appropriate software at reduced prices. All software titles to be installed on LATIS workstations must undergo a certification process. Software certification is a quality assurance process performed to ensure software products will install and execute successfully on a LATIS server or work station. The machines used by CSM for testing software are identical to those in schools and run the current version of the Standard Operating Environment (SOE).

**e-Tool:** The Curriculum Framework Planning Tool (also known as the e-Tool) is an online resource that assists teachers in the planning of units of work specific to the Outcomes detailed in the Northern Territory Curriculum Framework. In addition the Curriculum Framework Planning Tool tracks student achievement and "distance travelled". Essential functionality allows users to:

- plan individualised outcomes based units of work built around the Northern Territory Curriculum Framework;
- enquire about, view and generate a number of reports relating to student achievement, within their school;
- utilise the student achievement data, to undertake comparative analysis and create data presentations;
- utilise customised teacher defined Indicators to augment existing Indicators and Outcomes;
- "harvest" curriculum resources integral to accomplish specific Essential Learning's and Outcomes;
- track student achievement and behaviour;
- provide a range of curriculum planning templates;
- produce reports using the student achievement data entered, for school level and systemic purposes;
- analyse 'distance travelled' by individual students and groups of students and make appropriate comparisons to consolidated class, group, school and territory wide data;
- access "anytime, anywhere" via a web browser interface for teachers; and
- provide access to student achievement levels for parents.

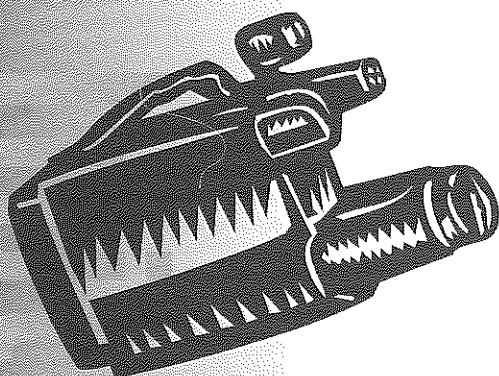
**Lyris:** Online Services LATIS hosts mailing lists via its Lyris list server. Lists are organised by topic, and viewable online. Schools are able to have lists created by ITSB staff for their use, which they are then responsible for managing.

**LATIS web site** <http://www.latis.net.au> Currently the primary online resource for Northern Territory schools. The site has been designed to provide teacher, ICTC and student access to online resources.

|  |   |
|--|---|
| <p><b>WESTERN AUSTRALIA</b></p> <p>- Department of Education WA</p> <p>The target ratio of 1:5 secondary and 1:10 by 2002 has been achieved and not new target has been set.</p> <p>The Telco Rollout in schools throughout WA to either 512 K, 2 Mbps or 10 Mbps (depending on location) permanent connections</p>  | <p><i>Systems projects to support ICTs for learning</i></p> <p><b>Professional development</b></p> <ul style="list-style-type: none"> <li>■ 37 Quality Teacher Projects for ICT in learning and teaching across the state.</li> <li>■ Online Teacher Learning Support Network (TLSN).</li> <li>■ Mentoring and professional support provided through district networks.</li> <li>■ Comprehensive professional development program in schools involved in e2c projects: ASP and e2c pilot.</li> </ul> <p><b>Application Service Provision (ASP)</b></p> <p>The Department is trialing infrastructure options and the impact of using advanced and enabling technologies within a teaching and learning environment. The trials are being run within 12 primary schools in the metropolitan area.</p> <p><b>Telecommunications Infrastructure Project</b></p> <p>The Telco Rollout in schools throughout WA to either 512 K, 2 Mbps or 10 Mbps (depending on location) permanent connections.</p> <p><b>Hardware in schools</b></p> <p>\$22m was the final instalment to schools to support acquisition of hardware at a ratio of 1:5 for secondary students and 1:10 for primary students.</p> <p><b>Notebooks for teachers</b></p> <p>Contract established for the provision of leased notebooks to all teachers, access to basic training, Internet access (where available through the Telecommunications Services Project).</p> <p><b>Buildings and facilities</b></p> <p>The primary and secondary school education design briefs include a communications brief, which specifies quality network infrastructure in new schools including wireless networking to allow anywhere, anytime learning within the school.</p> <p><b>School Information System (SIS)</b></p> <p>Provides an integrated comprehensive information management system to support schools in managing learning and teaching. By the end of 2001 almost 300 schools had installed various modules of the software.</p> <p><b>Library Automation</b></p> <p>Library automation systems are used within all schools for the access and delivery of information in curriculum resources managed by a school library resource centre.</p> <p><b>Curriculum Materials Information Services</b></p> <p>Directory of online resources for teaching and learning. Technology Focus publication.</p> <p><b>SIDE online curriculum resources</b></p> <p>School of Isolated and Distance Education (SIDE) trials in developing content "storylines", joint development of a year 10 Indonesian LOTE CD ROM through the National materials development network (NMDN), English course and Yr 7 Language Course.</p> <p><b>Technologies for distance education</b></p> <p>Range of technologies trialled for delivery to remote schools and students.</p> <p><b>Telco Rollout</b></p> <p>Telco Rollout infrastructure will provide the bandwidth required to support effective delivery of online learning.</p> <p><b>eLearning systems</b></p> <p>Trialling of learning and content management systems with a few schools, including a study by the Educational Technology Unit at SIDE.</p> |
| <p><b>NATIONAL CATHOLIC EDUCATION COMMISSION</b></p> <p>Computer: student ratios vary between schools. There has been an identifiable overall trend for Catholic schools to increase student access to computers.</p> <p>Most schools are connected either to a Wide Area Network, with some dioceses in partnerships with State authorities; e.g. in NT. Connectivity has improved in recent years.</p> | <p><i>This information is a summarised version from the MCEETYA Information and Communication Technologies in Schools Taskforce (2002) Progress Report. It does not provide a complete identification of all initiatives occurring in all Catholic schools throughout Australia.</i></p> <p><b>Staff professional learning programs</b></p> <p>Often working with tertiary institutions to provide ICT competencies programs for teachers; e.g. The Learning Technologies for Teachers course in liaison with Curtin University's Graduate Certificate in Learning Technologies for Teachers program.</p> <p><b>Projects to support the development or delivery of learning materials online</b></p> <p>Developing frameworks for online content resources.</p> <p>Most dioceses have programs supporting online learning; e.g. LinCS- Linked Catholic Schools project of the Brisbane archdiocese</p> <p>Piloting Online instruction in Ancient History, LOTE and VET in NSW.</p> <p>EdNA online is promoted.</p> <p>Developing online database of materials for Religious Education and Values Education.</p> <p>Increasing participation in Projects; e.g. Netdays, National Catholic Education Commission Web Challenge.</p> <ul style="list-style-type: none"> <li>■ Programs often developed in collaboration with State authorities; e.g. Catholic Education Office in Perth reported that in 2001 a state ICT forum includes representatives from education systems and professional associations and focuses on alignment of content and services between sectors and systems in WA.</li> </ul>  |



| <b>State/Territory - Education System</b><br>The target ratio of computers to students and connectivity  | <b>Summary of systemic projects to support ICTs for learning - incorporating staff professional learning programs</b>   |
|--|---|
| <p><b>NATIONAL COUNCIL OF INDEPENDENT SCHOOLS' ASSOCIATION (NCISA)</b></p> <p>Computer: student ratios vary between schools. For example, some independent schools require students to each acquire a laptop computer. Most settings have well equipped computer laboratories. Overall data for the independent sector is unable to be determined as schools act independently.</p> <p>Schools vary in connectivity as they act independently and have different levels of infrastructure. Information suggests that there are some independent school settings in remote areas of WA, Qld and NT where connectivity needs to improve.</p> | <p><i>This information is a summarised version from the MCEETYA Information and Communication Technologies in Schools Taskforce (2002) Progress Report. It does not provide a complete identification of all initiatives occurring in all Independent schools throughout Australia.</i></p> <p><b>Staff Professional Learning Programs</b></p> <p><b>Quality Teacher Program</b> has been used to increase the ICT competencies; especially through the Curtin University of Technology's <i>Technology for Teachers' Course</i>.</p> <p>Most professional development for teachers is school-based.</p> <p>A diverse range of professional development programs occurs in independent schools.</p> <p><b>Projects to support the development or delivery of learning materials online.</b></p> <p>This is also largely a school-based initiative. According to the NCISA, schools range in the adoption of ICT for online learning, including schools which are extremely innovative; e.g. SchoolKit and WebCT are used in some schools.</p> |



## REFERENCES

- Bowes, J. (1998). State of the Nation: Tasmania. In *Australian Educational Computing*, Volume 13, No. 2, p. 13.
- Catholic Education. (1998). State of the Nation: Catholic Education. In *Australian Educational Computing*, Volume 13, No. 2, pp. 16-17.
- Department of Education, Training and Youth affairs. (2000). Learning in an online world – School action plan for the information economy. In *Learning for the knowledge society: An education and training action plan for the information economy*. Canberra: DETYA.
- MCEETYA Information and Communication Technologies in Schools Taskforce. (2002). <http://www.curriculum.edu.au/mceetya/taskforce/task223.htm> on 26 August 2002.
- MCEETYA Information and Communication Technologies in Schools Taskforce. (2002). *Learning in an online world: the school education action plan for the information economy Progress report 2002*. MCEETYA.
- Netherway, N. (1998). State of the Nation: Victoria. In *Australian Educational Computing*, Volume 13, No. 2, p. 14.
- Trinidad, S. (1998). National Overview Table of State Education Department Technology Initiatives. In *Australian Educational Computing*, Volume 13, No. 2, pp. 4-5.
- Weber, M. (1998). State of the Nation: Western Australia. In *Australian Educational Computing*, Volume 13, No. 2, p.15.