

ACT FINAL IMPLEMENTATION PLAN

DIGITAL EDUCATION REVOLUTION

INTRODUCTION

This Implementation Plan details the ACT's approach to the implementation of the Digital Education Revolution (DER), including factors designed to reach the computer to student ratio of 1:1 for each Year 9 to Year 12 student by 2011.

This plan is a joint initiative of the Australian Government and the ACT Government. In collaboration with the Australian Government, the implementation plan will be reviewed and revised throughout the life of the Agreement to ensure that it remains responsive to any changes in the ACT environment.

Funding included under the DER National Partnership commenced in 2008-09 and is scheduled to conclude in 2012-13. This plan also provides the foundation for implementation progress reports, which are to be provided on a six-monthly basis throughout the life of the agreement.

The DER National Partnership is a Multilateral Agreement established to facilitate the implementation of the DER - a \$2.2 billion investment by the Australian Government over six years which aims to contribute sustainable and meaningful change to teaching and learning in Australian schools, to prepare students for further education, training, jobs of the future and to live and work in a digital world.

All state and territory governments agreed through the Council of Australian Governments (COAG) to a national, coordinated and collaborative partnership approach to developing and implementing the DER.

The National Partnership includes funding for the National Secondary School Computer Fund (NSSCF), which is one element of the DER. Other elements of the DER that are included in the National Partnership are:

- § The Fibre Connections to Schools Initiative;
- § National collaboration to ensure ICT training for teachers;
- § Development of online curriculum resources;
- § ICT deployment support; and
- § Project funding support.

ACT CONTEXT

The ACT public school system is a small education jurisdiction with 38 280 students attending the 83 public schools from preschool to year 12 (as of February 2009 Act School Census). Whilst the majority of these schools exist within the Canberra metropolitan area, there are two sites considered remote – Jervis Bay School and the Birrigai Education Centre.

The ACT public education system offers a range of schooling models from preschool to year 12. Recently, all preschool sites have been integrated administratively with their host primary school, creating P-6 schools. In addition to the 50 P-6 schools, in 2009, the Department had responsibility for:

- § nine year 7 to 10 high schools
- § seven senior secondary colleges
- § five preschool to year 2 schools
- § four special schools
- § four preschool to year 10 schools (including one Koori preschool)
- § one preschool to year 7 school
- § one kindergarten to year 10 school
- § one year 6 to 10 school
- § one year 7 to 12 school.

This diversity in school structure and geographical proximity has provided opportunities and challenges for implementing ICT infrastructure and professional development.

Enrolment data utilised to allocate Commonwealth funding for the implementation of the DER was based on 2007 ACT School Census data. At this time there were 10 747 students enrolled in years 9-12.

The ACT Department of Education and Training partners with InTACT, the whole of ACT Government IT provider, in the provision of infrastructure, procurement and support for the deployment of ICT to schools. The Department retains responsibility for strategic planning, policy development, leadership development and the enhancement of teacher capabilities through the provision of professional learning in learning technologies.

ACHIEVING 1: 1 COMPUTER ACCESS

One element of the DER, the National Secondary School Computer Fund (NSSCF), will provide funding over a four year period to achieve access to a computer for each Year 9 to Year 12 student. The ACT Department of Education and Training will meet its commitment to achieve this level of access by working with schools to:

- § enable purchasing of a range of access devices from a central procurement panel of suppliers
- § centrally configure, deploy and manage IT access devices to ensure all key milestones for implementation are met

§ centrally provide critical IT infrastructure to enable robust and sustainable access to deployed devices.

The development of the central procurement process will be informed by consultations with schools to ensure their procurement needs are met throughout this process. Schools will be able to choose a technological solution that best fits their teaching and learning needs. Computers from high end multi media units through standard desktops and laptops to netbooks will be available for schools to purchase.

The ACT will look to leverage off other jurisdictions' existing procurement contracts, where possible, to support the implementation of the NSSCF. Centrally coordinated procurement, installation and support will ensure the timely delivery of computers to schools and enable key program milestones to be met.

Deployment

The ACT has engaged InTACT to manage the central procurement and deployment of the devices to schools. The implementation of the wireless networks in schools together with developments occurring under the Building Education Revolution will determine the scale of deployment in the next stages.

Schools will be consulted on their capacity and teacher capability to introduce the remaining devices to achieve the 1:1 ratio. Programs to assist schools with this next step are being developed by the ACT Department's Learning Technologies Team. A staggered delivery over the remaining two year period is anticipated to reduce pressure on deployment teams and to allow for a staged refresh process in future years.

Reporting

All procurement and deployment of the devices under the NSSCF will be managed centrally by InTACT, as will the management of on-costs. No funds will be distributed directly to schools. InTACT will comply with the Reporting Schedule detailed in the Bilateral Agreement and produce a single progress report for all schools on behalf of the ACT. This will cover all aspects of deployment, expenditure and progress against the four strands of change and will align with the scheduled On Cost reports.

Catering for students with disability

The Department is strongly encouraging schools to utilise the NSSCF to purchase assistive and inclusive technologies for students with disability. The Department has involved its Inclusive Technologies Team to assist schools in determining the appropriate selection of technologies to meet specific student requirements.

Mainstream schools with students with a disability will engage the ACT Department's Inclusive Technologies Team to assess the specific requirements of these students. The technology procured under the NSSCF will remain with the student while they attend an ACT public school in Years 9 to 12. The suitability of all applications for funding for students with a disability under this program, including those schools established specifically for these students, will

be assessed by the Inclusive Technologies Team prior to approval. Following approval, schools will submit their procurement requests to the central procurement point in InTACT.

Equity of access to ICT

The provision of centralised infrastructure, tools and support to all ACT schools through this DER implementation will ensure that all students in years 9-12 have the ability to access the technology, digital resources and Virtual Learning Environment.

All schools have had to submit an IT plan as part of the implementation process outlining a sustainable commitment to the implementation of computers into teaching and learning programs. The embedding of an IT planning requirement into the ACT School Improvement Framework will also ensure schools strategically utilise and manage their IT resources.

PROVIDING 21ST CENTURY LEARNING TOOLS

The Department will provide a consistent suite of IT tools and services to all schools through the provision of a new Virtual Learning Environment (VLE) to be trialled and deployed in 2010-11. This environment will provide the opportunity for students and teachers to access a range of communication and collaboration tools, as well as quality assured learning content in a safe and robust learning environment.

The ACT is also working on a collaborative project with Macquarie University on the use of the online learning design tool Learning Activity Management System (LAMS) in teaching and learning as part of the Australian Government Quality Teaching Program in 2009. The Department is a partner in a project with Macquarie University to ensure LAMS is System Interoperability Framework (SIF) compliant, to enable a potential integration of the program with future ACT IT systems.

The Department is also deploying SCOOTLE access to all its public schools to ensure that teachers and students have access to quality assured Australian digital content from the Le@rning Federation.

FOUR STRANDS OF CHANGE

Strand 1: Leadership

The important role that school leaders have in promoting the uptake and integration of ICT in teaching and learning is well recognised by the Department. ICT leadership and management capabilities are embedded within the ACT *School Leadership Framework*. All ICT peer coaching programs are required to have Principal approval and support to assist in capacity building at the school level to ensure transfer of skills is embedded in school practice.

ICT modules will be embedded as part of the broader ACT leadership professional learning program for both existing and aspiring school leaders. These modules will focus on both the management of resources to support

sustainable digitally rich environments, as well as the skills and capabilities required to lead dynamic contemporary learning communities.

Leadership modules will also be offered to support the implementation of the Department's VLE. The new VLE will also provide a platform for the delivery of eLearning courses to school leaders to enable greater access to IT leadership professional learning opportunities.

Strand 2: Infrastructure

The ACT has made a range of significant investments in ICT infrastructure through the ACT Government's \$20m *Smart Schools Smart Students* initiative. The ability to leverage the investments under the NSSCF with this existing initiative will ensure the successful delivery of 1:1 computer access to students in years 9-12. The ACT is investing in a range of supporting infrastructure projects including a fully owned ACT Government gigabyte fibre network to all schools, deployment of wireless networks, and a new VLE. Significant investments include:

- a. Fibre to Schools Project: The cornerstone of the program is the provision of a single ACT public schools fibre network to be completed by December 2009. The total investment under this project was \$16 million for the connection of fibre to all public schools. This network leverages off existing government fibre installations across Canberra and will provide all ACT schools K-12 with a 1 gigabyte fibre connection on a fully owned network. This will place the ACT in an enviable position with a fully owned and operated fibre network to all schools with minimised recurrent costs and the capacity to provide centralised services and support to all schools.
- b. Wireless in schools project: The provision of a wireless network in all schools is another key project in the *Smart Schools* program. Schools will be provided with wireless network access to ensure connectivity and access to online tools, services and resources in a flexible manner across the school environment. This network will be critical in supporting the large number of ultra portable devices currently under procurement as schools move towards the 1:1 access to computing devices for students in years 9-12.
- c. Virtual Learning Environment: The Department's new VLE will provide all of the key tools and services to design and deliver contemporary online learning experiences for all students, and will underpin the successful implementation of 1:1 computer access. The VLE will enable teachers to host a wide variety of learning experiences for students utilising a range of communication and collaboration tools including wikis, blogs, podcasts and videoconferencing. The VLE will enable teachers and students to access, develop and exchange a wide variety of teaching and learning resources. Quality assured resources such as The Le@rning Federation digital content will be available to all users through this environment. The VLE will also contain a parent portal, giving parents access to a range of information about their child's learning, and providing opportunities for enhanced communication between home and school.

Strand 3: Learning Resources

The provision of a central digital repository that will service all schools will be undertaken to assist in the uptake and access of ICT in schools. This will remove duplicate storage and facilitate sharing and collaboration between teachers and students. This will be linked into the Department's new VLE to support anywhere, anytime access by staff and students to curriculum and resources. The development of the VLE will ensure its compliance with emerging interoperability frameworks such as SIF, to ensure the ACT is well positioned to participate in ongoing national content and resource exchanges that are likely to emerge as we move towards a national curriculum.

To encourage parent involvement in their student's progress and school community, a Parent Portal will be developed through the VLE. This is a key requirement of the proposed VLE deployment and will enable parents the opportunity to engage further with their children's education.

The content of The Learning Federation (TLF) will be accessible through SCOOTLE. SCOOTLE has been available to ACT public school teachers since January 2009 and has already been utilised by one quarter of all teachers (as at September 2009). This number will increase through the implementation of the DER and ongoing deployment of professional development in the coming years.

Strand 4: Teacher Capability

Teachers will be supported in the ongoing uptake and integration of ICT through a number of professional learning programs. ICT peer coaching capacity building programs will continue to build the capacity of key staff who can enhance the uptake of ICT amongst colleagues on their return to school.

The ACT will also be providing professional learning and support for the rollout of key services such as the VLE, which will expand teachers' capabilities to integrate a range of ICT tools, including wikis, blogs, videoconferencing, podcasting and digital content. The Department's new VLE will provide a key platform for the delivery of eLearning.

Teachers will also be provided access to an online self assessment framework to determine their current capacity to use ICT for teaching and learning and identify areas where they can improve.

The Department will work to ensure ICT is embedded in cross curricular professional learning programs, and that the significant investment made to increase ICT access is leveraged by schools to benefit broader educational objectives such as literacy and numeracy and languages.

COLLABORATION AND LINKAGES

Collaboration with non government schools

The ACT Department of Education and Training has a long history of working collaboratively with the non government schools sector. For example, the Department has worked closely with the non government sector during its implementation of the Australian Government Quality Teaching Program. While

each sector has a different approach when implementing their Digital Education Revolution program in the ACT, opportunities for collaboration will continue to be explored.

Collaboration with other states, territories and the Commonwealth

The ACT has a history of collaboration with other jurisdictions and the Commonwealth through national initiatives such as The Le@rning Federation (TLF).

The Department recognises the value of collaborating with larger jurisdictions, and is currently working with the NSW Department of Education and Training on an exchange of resources to support best practice pedagogical approaches to implementing the 1:1 NSSCF ratio in a variety of subject areas.

Links with other National Partnerships and Programs

A number of existing and emerging national partnership agreements will be enhanced by the ACT DER implementation.

The four ACT schools participating in the Low Socio Economic Status School Communities National Partnership will benefit from the provision of 21st century learning tools and resources under the DER, enable them to provide richer ICT enabled learning experiences for all students.

Implementation of the Teacher Quality National Partnership will benefit from the enhanced access to eLearning tools and services provided through DER implementation in the ACT. Both National Partnerships share a joint focus on the implementation of peer coaching as a strategy for professional learning, which will be coordinated at the jurisdiction level.

The Youth Attainment and Transitions National Partnership has a strong focus on strategies to retain and engage young people in education, training or employment. The challenges associated with this agenda will require the application of a range of technology solutions to identify and connect with the various cohorts of young people targeted through this National Partnership.

The Trade Training Centres National Partnership will encourage new thinking in regard to the delivery of vocational learning programs in schools. Implementation of the DER will provide opportunities to enhance delivery and assessment processes for vocational learning programs through eLearning, and promote the establishment of innovative partnerships and improved use of technology.

The implementation of the Commonwealth's Building Education Revolution initiative in the ACT is playing an important role for the DER through the provision of network infrastructure and power capability, which will support the additional computers arriving with the NSSCF and local authority initiatives within new building spaces.

BUDGET TIMELINES AND MILESTONES FOR THE NSSCF

NSSCF Funding Allocations by Year – (Commonwealth funding only)

	2008/09 \$m	2009/10 \$m	2010/11 \$m	2011/12 \$m	2012/13 \$m	Total \$m
Round 3 onwards	2.156	2.121	1.095	2.189	2.189	9.750
On Costs		2.070	2.070	2.070	2.070	8.280
Total	2.156	4.191	3.165	4.259	4.259	18.030

ACT Department of Education and Training – NSSCF Co-investment

	2008/09 \$m	2009/10 \$m	2010/11 \$m	2011/12 \$m	2012/13 \$m	Total \$m
Wireless Networks	0.40	0.60		0.30	0.30	1.60
Virtual Learning Environment (VLE)		0.80	0.64	0.64	0.64	2.72
SchoolsNET (Capital)		1.40				1.40
SchoolsNET (Recurrent)		5.80	5.80	5.80	5.80	23.20
Broadband Connections to Schools	5.05	0.44				5.49
Total	5.45	9.04	6.44	6.74	6.74	34.41

Computer deployment to achieve 1:1 under the NSSCF

Student Enrolments as at August 2007	10747
Number of PCs available to Year 9-12 at Aug 07	3211
Number of PCs less than 4 years old at Aug 07	1076
Number of PCs older than 4 years at Aug 07	2135
Total number of PCs less than 4 years old required to reach 1:1	9671
Computers deployed in Round 1, 2 and 2.1	4278
Computers to be deployed from January 2010 to December 2011	5393

Milestones - for deployment to achieve 1:1 under the NSSCF

September 2009	Execute Microsoft Licensing Agreement to provide desktop and network licensing for the increased numbers of devices.
December 2009	Completion of fibre connections to all ACT public schools Completion of rollout of 4278 computers to achieve 1:2
January 2010	Commencement of rollout of 5393 computers to increase ratio from 1:2
March 2010	Centralised student account provisioning
June 2010	Commence centralisation of student networks Completion of installation of wireless networks in schools with centralised management Implementation of the Virtual Learning Environment
December 2011	Complete rollout of netbooks to achieve 1:1
July 2012	Commence replacement of devices available to Years 9-12 prior to NSSCF Commence replacement of Round 1 computers Commence program to refresh network infrastructure
September 2012	Renegotiate Microsoft Licensing Agreement
January 2013	Commence replacement of Round 2 computers
June 2013	Complete replacement of Round 2 computers.