INTRODUCTION
If the Digital Education Revolution is to be successful in your school it needs both good management and good leadership that address:

• a strongly supported vision and culture
• planned professional learning for staff
• the development of technology-rich, student-centred pedagogies
• student ICT skill and wellbeing needs for working in a digital environment
• effective administrative and technical support and infrastructure.

The principal is a critical factor in achieving this success. The following checklist has been developed to assist school-based DER planning and to assist the integration of DER across the School Plan.

CHECKLIST
Policy and Procedures
- Program leader/manager
- Communication strategies
- Policy review
- On site service plan – the technology support officer (TSO)
- Administration and accountabilities
- Annual cycle as part of school planning calendar

Digital Education Plan
- vision
- evaluation

Student Learning in a Digital World
- Student induction: digital citizenship
- Cyber safety education
- Digital learning skills development plan
- Addressing the casualties of the digital learning environment
- Blended learning

Teacher ICT Professional Learning Support
- Pedagogical review
- Professional learning plan
- Classroom protocols
- Resources
- Assessment

A National Approach
- Resources from around Australia
Policy and procedures

**Program Leader/Manager**

While the principal has overall leadership, there is a place for a program leader/manager. This could be an executive member with designated DER responsibilities such as:

- student incident reporting, approval for replacement, ordering, sanctions related to laptop misuse, TSO support (including authorisation of leave claims, accountabilities and communication)
- use of pool laptops and teacher laptops
- leavers and enrolments, non returnees and holiday loans
- security: strategies, such as lockers, lockable cages for sport and practical lessons
- professional learning plan for staff and student 1:1 digital skills plan (see below)
- keeping up-to-date with any changes to DER – NSW policies and procedures (the updated policy, implementation procedures and Laptop User Charter can be located on the NSW DET website and DER site)

**Links:**

DER-NSW policies and procedures and Laptop User Charter

https://www.det.nsw.edu.au/policies/technology/computers/l4l/PD20090395.shtml?level=Schools&categories=SchooIs%7CCurriculum+%26+school+work%7CTechnology

https://detwww.det.nsw.edu.au/deptresources/majorprojects/dernsw/policies/index.htm (intranet only)

Communication strategies

Regular communication is desirable so that parents, students and staff feel up to date on the latest news related to the use of technology in education. Explore ways to use ICT to communicate and engage with families. Strategies might include:

- parent information evenings – scheduled for 2010 (see DER NSW schedule for delivery of student laptops); preparation of handouts (note that Laptop User Charters will not be mailed out centrally in 2010 – the updated version can be found on the DER intranet site)

**Link:**

https://detwww.det.nsw.edu.au/deptresources/majorprojects/dernsw/policies/index.htm (intranet only)

- school newsletters – regular bulletins with research and stories on 1:1. Links to DER internet site

**Link:**

Click: A Technology Guide for Parents


- staff briefings for start of the school year, staff handbook (e.g. classroom protocols, booking class time for TSO or pool laptops, laptops security
- student diaries or school handbook information
- publication of student work on school websites for parents and others to view
- parent education sessions at P&C meetings.

Policy Review

A range of school policies and procedures may need adjustment due to DER, so a review to ensure they address issues that arise from use of DER laptops would be a valuable staff activity. The review might include, adding laptops to leaver and enrolment forms, staff leavers and return of laptops process, temporary and casual teachers and laptop loans, cyber addition to anti-bullying policy; bringing required equipment to class and misuse in class.

**Resource:**

Note the following videos provide advice from educational leaders on introducing policies and procedures to support the use of 1:1 laptops.

Leaders Talk Laptops:


These issues could be clustered around, for example, student hardware and communication issues in whatever ways suits your school organisation.
On site service plan – the technology support officer

The technology support officer (TSO) needs to be accessible to students and in a location able to access the wireless network. Students need to be aware of the processes when a laptop is stolen, lost, broken, faulty, forgotten or the battery runs out.

It is likely that the school DER program leader or manager has line management responsibilities for the TSO. These responsibilities will include ensuring that the TSO is included as a member of staff, is not allocated additional non-DER work and is safe and constructively occupied during school holidays.

Other TSO monitoring tasks might include making sure that the TSO:
- has tracked the laptop status of non-returning students and teachers
- has updated the resource management utility (RMU) with the status of every laptop that he/she is responsible for (including stolen, broken and loaned laptops)
- has logged any faulty or damaged laptops that have had incident tickets using the TSO Kinetic Forms
- is managing their incident tickets within the TSO incident console and resolving any outstanding incidents that are no longer current (machines repaired or now working)
- seeks approval for, and accounts for, overtime and correctly tracks flexitime
- is keeping up-to-date and in regular contact with their regional TSO
- is actively signed up and checking the TSO Forum
- shares any good work or good practice with other TSOs across the region and their DER-NSW regional manager.

The TSO should also be aware of and regularly checking:
- the schools laptop fleet status
- DER-NSW policies, including the recent updates and the revised Laptop User Charter
- phase 2 wireless installation work that is either scheduled or soon to be scheduled
- the resources on the TSO Resources Page.

Administration and accountabilities

There are a number of administration tasks generated by the DER laptop program. These include:
- filing of Laptop User Charters and Laptop Loan Charters
- filing of parent consent forms for students with disabilities
- flexible funding records – expenditure
- stocktake of all assigned, loan and pool laptops and any other audit requirements

Budget tasks include:
- allocation of funds for discretionary purchases, such as replacement laptops for losses not eligible under Treasury Managed Fund (TMF), additional wireless access points or sales to students (chargers, plastic cases and thumb drives); gathering and maintaining data records for replacement/repairs for laptops not covered by TMF.

### Annual Cycle as part of the school planning calendar

<table>
<thead>
<tr>
<th>Term</th>
<th>Tasks</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Initiate recovery of non-returning student and staff laptops</td>
</tr>
<tr>
<td></td>
<td>Issue machines to eligible new enrolments and new staff</td>
</tr>
<tr>
<td></td>
<td>DER in teaching programs for Year 10</td>
</tr>
<tr>
<td></td>
<td>Delivery of new laptops</td>
</tr>
<tr>
<td></td>
<td>Year 9 passwords reissued</td>
</tr>
<tr>
<td></td>
<td>Print off revised Laptop User Charter</td>
</tr>
<tr>
<td></td>
<td>Parent night for Year 9 and new DET enrolments in Year 10</td>
</tr>
<tr>
<td></td>
<td>Laptop orientation program for Year 9 (in 2010 this will include students completing the DER evaluation online)</td>
</tr>
<tr>
<td></td>
<td>Professional development for staff</td>
</tr>
<tr>
<td>2</td>
<td>Professional development for staff</td>
</tr>
<tr>
<td></td>
<td>Introduce Year 9 to DER resources from TaLe (<a href="http://www.tale.edu.au">www.tale.edu.au</a>)</td>
</tr>
<tr>
<td></td>
<td>Year 9 cyber safety education</td>
</tr>
<tr>
<td></td>
<td>Year 9 digital skills education</td>
</tr>
<tr>
<td></td>
<td>Year 9 laptop care education</td>
</tr>
<tr>
<td>3</td>
<td>Professional development for staff</td>
</tr>
<tr>
<td></td>
<td>Year 9 cyber safety education</td>
</tr>
<tr>
<td></td>
<td>Year 9 digital skills education</td>
</tr>
<tr>
<td></td>
<td>Year 9 laptop care education</td>
</tr>
<tr>
<td>4</td>
<td>Year 8 cyber safety education</td>
</tr>
<tr>
<td></td>
<td>Year 8 digital skills education</td>
</tr>
<tr>
<td></td>
<td>Year 8 laptop care education (apply for flexible funding if required)</td>
</tr>
<tr>
<td></td>
<td>Identify students leaving DET with laptops and initiate retrieval procedures</td>
</tr>
<tr>
<td></td>
<td>Identify teachers leaving DET or transferring schools and initiate retrieval procedures</td>
</tr>
</tbody>
</table>
Digital Education Plan

Vision
Consider the critical role of the principal in building a shared vision and supportive culture. What are your personal plans to improve your own understanding of what 1:1 learning might make possible for students?

Questions you might ask yourself and your planning team include:

- How will classroom practice leverage technology to improve student learning outcomes?
- How will 1:1 improve teachers’ ability to address diversity and better personalise students’ learning?
- What should a 21st century classroom look like?

Links:
Getting started with laptops

Digital education – making change happen
http://www.aictec.edu.au/aictec/webdav/site/standardssite/shared/Digital_Education-Making_Change_Happen.pdf&ei=3v9ps6vuKsylkAXD1Yi2DQ&sa=X&oi=spellmeleon_result&resnum=1&ct=result&ved=0CAcQhIwAAU&usg=AFQjCNEDRv9cBUjxzZFCJKRReMyCiZ3RQw

Leadership Strategy Learning in a digital world

Evaluation
While the DER program is initiating a longitudinal evaluation, there are areas you may find valuable to monitor and report on from a school perspective. Thus you and your team might gather data such as:

- attendance
- suspension and expulsion
- retention
- academic outcomes
- student at risk
- lost, stolen and broken laptops.

The DER program will also be asking principals to report on DER professional learning activities and expenditure for the 2009/2010 financial year. Thus you might check that data is being appropriately collected in such areas as:

- school based professional learning activities – number, type, cost, staff involvement and effectiveness
- out-of-school professional learning activities – number, type, cost, staff involvement and effectiveness
- other expenditure to support the professional learning of staff.

Much of this data can be found in information about the school’s tied grant. In additional, the DER program will devise a survey for teachers and leaders to assist reporting on professional learning and what has been most effective in meeting school needs.

Student Learning in a Digital World

INTERNET POLICY

Student Induction: Digital Citizenship

Students should be taken through the Laptop User Charter and be aware that they have agreed to the Online Communication Services: Acceptable Usage for School Students Policy as part of their access to the internet at school.

Links:
Laptop User Charter
https://detwww.det.nsw.edu.au/deptresources/majorprojects/dernsw/policies/index.htm (intranet only)

Online Communication Services: Acceptable Usage for School Students policy
https://www.det.nsw.edu.au/policies/general_man/general/accept_use/PO20020046.shtml?level=Schoo ls&categories=Schoo ls%7CComputers+%26+Internet %7COnline+communication+services

Their attention should be drawn to the sections on:

Acceptable usage

This should include strong messages about the potential consequences of breaches – such as modification of the device’s software or hardware – which places the managed statewide DER technical solution in jeopardy. Such breaches are identified by Information Technology Directorate Security and will result in the laptop being shutdown and recalled for investigation. Other breaches include attempting to bypass filtering, accessing inappropriate sites, accessing hacking forums designed to share hacking information or other unacceptable breaches, and can lead to loss of take home rights.

Privacy and confidentiality, including personal privacy, sharing of other people’s data and sending photos of others without their permission.

Are your teachers sufficiently up to speed on social media sites to understand the privacy issues?

Would understanding social media or web 2.0 sites such as YouTube, Facebook,
EMAILING WORK
Assessments may only be emailed if the teacher agrees. Similarly protocols for teacher email contact will need to be developed so that there is a clear understanding that teachers will not necessarily reply overnight. Teachers could use the **Out of Office** auto reply functionality to indicate to students that they should see the teacher at school or when they will be next available. Teachers should be very explicit about what students can expect regarding student/teachers email traffic and manage expectations about response times.

BACKING UP WORK
It is the students’ responsibility to back up their work. Students are to be encouraged to always save important work in two places or email it to themselves. Lost work is not an excuse for not handing in assignments.

FILTERING
Senior students sometimes find the filtering frustrating when doing research. A school-based process could be developed whereby senior students can request a teacher or the librarian to apply to have a site unblocked on their behalf.

Cyber safety education
There are a large number of excellent resources to assist the teaching of cyber safety. Content might include unwanted contact, cyberbullying, online friends, playing games online – keeping the balance, digital footprint, P2P/filesharing, inappropriate content, financial security and online shopping and identity theft.

Links:
- Privacy NSW
- Let’s fight it together – Cyber Bullying film [http://www.digizen.org.uk/cyberbullying/fullFilm.aspx](http://www.digizen.org.uk/cyberbullying/fullFilm.aspx)
- Cry of the Dolphins – Cyber Bullying film [http://www.youtube.com/oceanking97](http://www.youtube.com/oceanking97)
Digital learning skills development plan

There is a big difference between the personal and professional use of ICT. We cannot assume that our students (or teachers) have the mastery of ICT tools needed for learning. Students should be taught gradually to assume responsibility for their own learning and be assisted in acquiring skills and attributes. Students should be assisted to develop self awareness of their capabilities and to build self confidence in learning.

Learning skills that could be included in a digital skills learning program include:

- e-searching – how to sift, assess, verify, evaluate, and then construct and integrate knowledge into coherent writing
- keyboard skills
- using editing tools to polish writing (e.g. outliner, dictionary, spellchecker, grammar checker, thesaurus)
- online referencing websites so as to acknowledge the contributions of others in their writing
- creating personal knowledge rather than “sampling” and “remixing”
- copyright and creative commons
- online etiquette – as with mobile phones, an etiquette is emerging that encourages quality standards of what students upload online.

Is there a significant role for the teacher-librarian?

Is there a need for teacher professional learning on these issues?

Should the digi-skills plan progress through from Year 7 to Year 11?

Developing such a plan would be a valuable teacher development activity.

Links:
- International Society for Technology in Education Standards http://www.iste.org/AM/Template.cfm?Section=NETS
- Gilly Salmon 5 stage learner model http://www.atimod.com/e-tivities/5stage.shtml

Addressing the casualties of a digital learning environment

NSW schools are well placed to proactively address casualties of working and learning in a digital and online world that are being progressively identified overseas.

Casualties include:

- the creation of personal knowledge is being replaced by bricolage (a construction made of whatever materials are at hand; something created from a variety of things; the use of multiple, diverse research methods) or Napsterism (data mining, recombining others’ designs to personally tailor configurations rather than the development of a personal knowledge)
- “sampling” and “remixing” information from the internet is seen to be replacing independent research, critical thinking and coherent writing
- polished writing – they may write more than any other generation but it is first draft. One still has to present one’s thinking regardless of the vehicle and online tools such as dictionaries, thesauruses, spelling and grammar checkers, outlinera and bookmarks are useful
- verbal minimalism – an impact on the development of knowledge through interactive discursive interchange;
- loss of quantitative literacy – the ability to integrate basic skills in contexts that require high levels of “literacy” to interpret situations and make judgements;
- cooperative problem solving;
- interactive discursive communication that creates knowledge and develops thinking;
- loss of that much needed “human component” when operating in the fourth dimension in virtually connected communities in immersive virtual environments but still alone
- online addiction to social networking and games.
Link: Living and learning with New Media
http://digitalyouth.ischool.berkeley.edu/report
Discussing these and other potential casualties could form the basis of a staff professional learning activity with the goal of generating possible solutions. These may include:
- forums for face-to-face discussion are needed to complement the virtual environment and counter one-way communication (eg group work with variety of groupings and feedback mechanisms, learning through discussion and questions, cooperative learning tasks, collaborative activities, promoting learning with others)
- addressing student wellbeing factors so that students feel someone is interested in them as a person – existing student welfare strategies could be supplemented by individualised target setting, e-mentoring, e-portfolios, personal learning coaches
- focusing on formative assessment and on improving assessment and feedback – if this is done well students’ individual learning and emotional needs will both be met.

Blended Learning
The concept of blended learning is reassuring for teachers. Student preferences for learning mediums need to be taken into account for designing effective learning environments. Their familiarity with ICT needs to be considered to supplement traditional learning environments.

Students prefer the internet for its potential to use resources – also seen as using time efficiently, getting help, communicating and linking existing and new knowledge. The classroom is seen as the more appropriate learning medium for interactivity with the course, interactivity, collaborative study, asking questions and getting response or feedback.

Link: Blended Learning: Why Everything Old Is New Again – But Better
http://www.astd.org/LC/2006/0306_gray.htm

NSW DET K–12 Focus Area

Teacher ICT Professional Learning Support
We cannot assume that our teachers already have either the 21st century skills or the natural capacity to change their teaching methods upon demand. A targeted and individualised professional learning plan and supportive of the school leadership can bring about these changes in the classroom.

For school teachers ICT needs to be considered a complementary technology to supplement traditional learning environments. This involves new ways of planning and accomplishing learning tasks. The self-regulated learner now has an arsenal of cognitive and meta cognitive tools with blogs, wikis and podcasts as new teaching tools.

While the leadership of the principal is crucial to the successful implementation of ICT in the classroom, a team approach is recommended where planning and review is shared rather than centralised. This enables the principal to call on a greater pool of expertise while increasing participation in decision making.

Pedagogical Review
The DER website provides links to many professional readings on 1:1 classrooms.

Link: Digital Education Revolution NSW Intranet site

DET has provided a range of KLA-specific resources as well as digital skills tutorial support for teachers.

Links:
The Digital Education Revolution page on TaLe
Centre for Learning Innovation
Curriculum K-12
Professional Learning & Leadership Development Directorate
Is it time to request that all faculty programs be updated to include digital perspectives and ICT smart targets relating to the enhancement of learning? Should coursework, assessment tasks and handouts now be placed on the school website for home access? Promoted as environmentally sound, this could gradually include questions, hotlinks, blogs and online coursework as staff become familiar with the technology.

### Professional Learning Plan
A whole school professional learning plan will start by identifying individual staff capabilities and school-wide ICT professional learning needs. Once this audit has been done (possibly using a tool such as CLAS (located on TaLe), a professional learning plan should be developed with the goal of meeting whole school plus individual needs via a range of professional learning activities, coaching, mentoring and opportunities to share effective practice.

**Links:**
- CLAS
- Grappling Technology and Learning Spectrum

### Classroom protocols
Another professional learning need may be student behaviour management when using laptops in the classroom so as to optimise learning. Teachers may also need strategies to address connectivity interruptions during class.

**Resources:**
- Getting attention in the Laptop Classroom
  http://fno.org/nov08/attention.html
- Learning Spaces Framework Learning in an Online World
- Teachers Talk Laptops
Assessment
Assessment tools should progressively include assessment of a range of skills including digital literacy. Teachers should ask themselves:
- What do I want the students to do to demonstrate their learning and understanding?
- How could the laptops be used to enhance assessment?

At the same time teachers should not be overawed by advanced digital skills and allow them to have a halo effect on their marking.

Professional learning might include use of online editing tools, such as track changes, which show revisions or comments in balloons or inline.

**Link:** internet search the following Assessment Call to Action Transforming Education: Assessing and Teaching 21st Century Skill.

The following resource provides advice to teachers on various assessment approaches they can use in a 1:1 laptop classroom


Note that there is a dissonance between the new learning and what is measured in external exams. Hence ICT can only remain a learning tool for now.

**A National Approach**

The Digital Education Revolution is a national program. Thus NSW principals can make use of the valuable resources developed in other states. Here is a sample:

**Australian Capital Territory**
ICT Competencies for High School Students

**Northern Territory**
ICT Teacher Continuum

**Queensland**
Smart Classrooms professional development framework

Student ICT Expectations

**South Australia**
Learning Technologies

**Tasmania**
ICT 4 strands of ICT

**Victoria**
ICT Capabilities Resource for Teachers

Learning and Teaching Resources

Cybersafe Classroom

**Western Australia**
ICT in Learning

For further information contact
T 9561 8636 [leave a message] E DER-NSW@det.nsw.edu.au