

ICT strategic planning guide for Australian schools

Department of Education, Employment
and Workplace Relations (DEEWR)

About this guide

Information and communications technology (ICT) provides schools with major opportunities for improving learning, teaching and administration. To benefit from these opportunities, a school must apply ICT resources in a way that supports its educational goals. ICT strategic planning, also known as e-learning planning, is a useful process for helping a school to make well-informed decisions about ICT.

This guide provides advice on ICT strategic planning for Australian schools. It is split into two parts.

- The first part explains *what* ICT strategic planning is and *why* effective planning provides benefits to schools.
- The second part explains *how* to conduct ICT strategic planning.

Many Australian government and non-government schools already receive advice on ICT planning from their education department, Catholic education office or independent schools association. Where ICT planning guides are available, schools should follow their advice and requirements. This national guide is intended to complement local guides.

This guide was prepared by the Department of Education, Employment and Workplace Relations (DEEWR) as part of the Australian Government's Digital Education Revolution program, with the assistance of all state and territory governments, the Catholic school sector and the independent school sector, working together through the national Teaching for the Digital Age Advisory Group (TDAAG).

DEEWR acknowledges the support and expertise provided by TDAAG members and many Australian educators who assisted in the preparation of this guide.

DEEWR also acknowledges the special assistance of Chris Roberts, the principal of Streaky Bay Area School in South Australia, and Chris Laycock, Head of ICT Services at Scotch Oakburn College in Launceston Tasmania, both of whom provided valuable examples of ICT strategic planning (quoted throughout this Guide). Streaky Bay Area School is a small remote government school; Scotch Oakburn College is a non-government urban school. Both cater for Early Learning through to Year 12 students.

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About ICT strategic planning

Why ICT is important for schooling

Information and communications technology (ICT) now pervades almost all aspects of life. Australian students must be prepared for living and working in a highly technological and information rich world that is rapidly changing.

ICT enables better and more personalised learning for all students, including those who live in remote areas and those with special needs. Today's students increasingly think, learn and live online.

For teachers ICT provides powerful and effective tools across all areas of the curriculum.

For support staff and administrators ICT can improve efficiency and enable more effective decision making based on accurate data.

ICT also enables new ways to support the professional learning of teachers and other staff.

We see technology as something that supports learning in many ways. ICT underpins all aspects of our curriculum to engage students and empower teachers. It also ties in to support our assessment methodology and innovative methods for reporting to parents. In fact ICT is part of our pedagogy, culture and building design.

– Chris Laycock, Head of ICT Services, Scotch Oakburn College

Why ICT strategic planning is crucial

There are many elements to consider when planning how to use ICT to improve learning, teaching and administration; for example:

- How will we change learning and teaching practices?
- What digital resources are available and how will we use them?
- How will teachers and other staff learn to use ICT resources?
- How will we maintain students' online safety?
- How can ICT be used to help us introduce the national curriculum?

There are also questions to be asked about providing the technology infrastructure.

- What hardware and software products will we need and how do we connect them together?
- What network services will be required?
- How will we manage the infrastructure and fix technical problems?

Furthermore, developing and maintaining a school's ICT resources creates ongoing costs in both staff time and money which go well beyond the initial costs of acquiring hardware and software. Careful budgeting is required.

Making good decisions about computer hardware and software is not sufficient to improve learning, teaching and administration – the most important decisions are about

how to incorporate ICT into the daily practice of teachers and other staff. ICT strategic planning is a useful process for achieving this.

We have developed some clear educational goals through our school improvement planning process. In particular, we've given a high priority to 21st century learning in contemporary classrooms. When funding became available for new computers and other equipment through the Digital Education Revolution, we wanted our educational goals to drive our technology choices.
– Chris Roberts, Principal, Streaky Bay Area School

Where the ICT strategic plan fits with other school plans

Most schools identify their overall vision and goals for improvement through the annual development of their school strategic plan or school improvement plan. Many schools prepare additional annual plans to support their overall goals, including a professional learning plan. Planning is also required for major developments such as building works. It is crucial to understand the ways in which ICT can support and create requirements for these plans.

ICT strategic planning should support overall school goals and priorities for improvement; it should not be seen as separate, but as an integral part of whole school planning.

Educational leaders' attitudes to ICT strategic planning

A major study by Teaching Australia has shown that integrating ICT into teaching and learning requires a 'whole school' strategic focus:

Integrating ICT into teaching and learning is affording educators opportunities to shift from teacher-centred to student-centred learning. In a survey of over 400 education leaders in 2005, participants indicated that to integrate ICT into teaching and learning requires schools to have a clear 'whole school' strategic focus on learning, teaching and organisational improvement; and this requires leadership. They suggested a whole school approach to incorporating ICT into teaching and learning requires taking into account philosophical, pedagogical, physical and practical considerations in an integrated way across a school, where professional learning and in-school processes are regularly reviewed and revisited. (Moyle 2006)

Schools also need to plan for the way that will they develop and manage their ICT infrastructure, which is a different and more technical type of planning not covered in this guide.

The difference between ICT infrastructure planning and ICT strategic planning

ICT infrastructure comprises the computers, mobile devices, peripherals, networks and operating software used by students, teachers and other staff. Schools change their infrastructure as new hardware and software is introduced and as changes are made to physical spaces. ICT infrastructure requires careful technical management and support services to ensure that it operates reliably, securely, safely and cost effectively. Careful planning is required to ensure that the infrastructure continues to meet the school's requirements.

Decisions must also be made about application software. This is the specialised software that is used to carry out the specific learning, teaching and administration functions of the school, for example learning management systems and student management systems. The systems are changed infrequently but when they are changed, careful planning is required.

ICT infrastructure planning enables a school to make good decisions about *how to provide* ICT to improve learning, teaching and administration; however, these decisions must be driven by a clear understanding of *why* ICT is being used – hence the need for ICT strategic planning.

Our ICT strategic plan ties in closely with the school's overall Master Plan, to support teachers, students and administrators to enhance learning. This hasn't happened in a linear fashion – in fact, over a few years we refined and developed both plans – but both give us a way forward.
– Chris Laycock, Head of ICT Services, Scotch Oakburn College

The scope of ICT strategic planning

ICT strategic planning provides a structured way to set visions and goals and to determine how to achieve them.

- A vision can assist in establishing the direction that a school takes, and paint a picture of how the school might use ICT in the future.
- Goals are specific, more measurable statements that define what the school is striving to achieve.

Example of a vision

The vision for student learning at our school is the creation of authentic and collaborative learning environments where students can motivate themselves and each other to become self-sufficient, lifelong learners, able to utilise the opportunities provided by a wide range of technologies, including the Internet. (from Moyle 2006)

Example goals

- By 2011, 75% of teachers will be confident about their ability to integrate ICT into their teaching practice.
- By 2012, all teachers will have access to effective ICT tools for managing student assessment.
- By 2011, 60% of all parents will notify student absences electronically.
- By 2012, wireless access to the school network will be available in all classrooms and other learning areas.

In setting and achieving visions and goals there are decisions to be made about the following:

- **Leadership and management:** The way that ICT is led and managed across the school.
- **Learning and teaching:** Incorporating ICT to support effective pedagogies in all parts of the curriculum and student-centred learning approaches.
- **Professional learning:** Enabling teachers and other staff to develop the skills to effectively use ICT in their daily practice.
- **Administration:** Using ICT to improve the efficiency and effectiveness of administrative processes, and to improve access to data for decision making purposes.

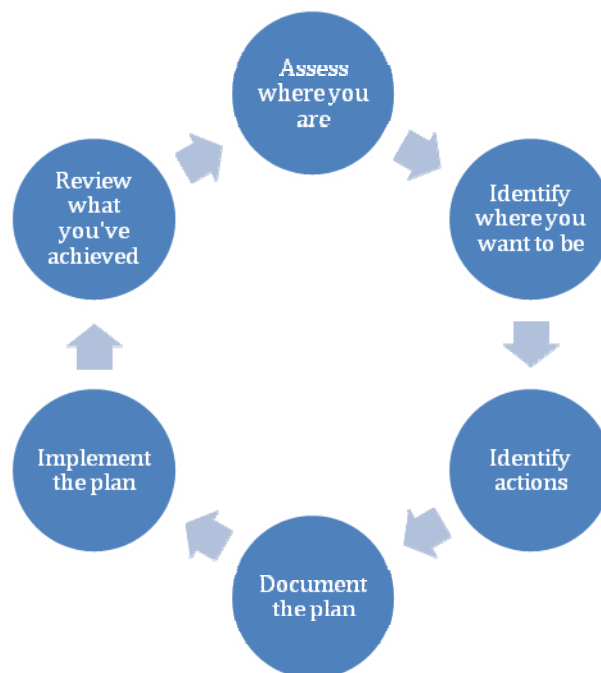
- **ICT infrastructure:** Selecting, acquiring, installing and maintaining computers, networks, software and other technology products.

Our ICT plan has only a few realistic and achievable goals. These are revisited regularly and modified as we go along. We particularly wanted to focus on better learning and teaching and the professional learning of our teachers.

– Chris Roberts, Principal, Streaky Bay Area School

The process of ICT strategic planning

The ICT strategic planning process is cyclical:



It's important that lots of people in the school community have a say in the ICT Plan and contribute to it – that way they'll have some ownership. Ultimately the school should have one person who can draw all these aspects together.

– Chris Roberts, Principal, Streaky Bay Area School

Working with your education department or education office

Government schools and many Catholic schools are provided with advice about planning and managing ICT by their education department or education office. It is important to follow this advice and comply with any requirements that are specified. Some education departments and education offices have established school accountability and improvement frameworks that specify how a school should plan and report progress. In many cases, these frameworks explain how to plan for ICT.

Many education departments and education offices also have programs and consulting services which help schools to plan, develop and manage their ICT resources. These can provide schools with access to expert advice, professional learning programs, digital learning resources and services, application software, ICT infrastructure and technical

support services. It is important that schools are aware of the local ICT programs and services that they are able to draw upon.

There are also important national programs such as the *Digital Education Revolution* to consider. These are described at the end of this guide.

ICT planning frameworks

Some state and territory government education departments have developed ICT planning frameworks for their own schools which are very useful for strategic planning. They are structured guides for reflection and evaluation which help schools to assess where they are now, determine where they want to be, and to monitor progress towards their goals. These frameworks should be used where they are available.

There is also a useful national ICT planning framework (*Digital education – making change happen*) which describes 10 elements that schools should plan for:

1. Personalising and extending learning
2. Enabling leadership
3. Supporting professional learning
4. Connecting learning beyond the school
5. Improving student assessment and reporting
6. Developing, measuring and monitoring ICT capabilities
7. Accessing and utilising student information
8. Providing, accessing and managing teaching and learning resources
9. Automating business operations
10. Providing reliable infrastructure.

The guide provides descriptors for each of the elements to guide school self review and evaluation. These are described at three levels: the developing school, the accomplished school and the leading school. The guide can be downloaded from: <http://www.aictec.edu.au/> (click on the link to Digital Education – making change happen planning framework).

The ICT planning frameworks developed by some education departments cover similar elements but are structured to meet local circumstances and priorities.

Other resources for planning

There are many resources which schools can draw on to support their ICT strategic planning including guides prepared by some education departments, Catholic education offices and independent school associations. See the *Further information* section at the end of this guide.

Preparing an ICT strategic plan

Before you begin preparing your ICT strategic plan, be clear about your purpose, decide on how you will prepare it and set aside sufficient time so that the right people can be involved. This section describes the steps the planning process might follow.

First steps

Determine your education department or education office's requirements

If your school is a government or Catholic school, become familiar with your education department or education office's requirements and strategic priorities, and collect any available information on ICT strategic planning: frameworks, templates etc. Are you required to report on the progress of your planning? What information will you need to provide? Check to see whether the education department or education office has an advisory or support service who can assist you.

If your school is an independent school, become familiar with the advice and resources available through your independent schools association.

Define the process and who will be involved

Decide how your stakeholders and experts will work together throughout the planning process.

It is important that the school principal drives the ICT strategic planning process. In larger schools, it may be useful to appoint a facilitator. That person does not need to be a technical expert, but should be skilled in facilitating strategic discussions. Technical experts can be involved in the strategic planning process and should lead the separate ICT infrastructure planning process.

If appropriate, appoint a planning group. Consultation with teachers and staff, parent bodies and the school council or board is very important.

The planning process chosen will depend on the size of your school and the resources you have available.

We found it effective to have a small number of innovators who worked within the school community. We set up working groups for specific projects and employed specialists when necessary. We're lucky to have a supportive school board who encourages us to work this way.
– Chris Laycock, Head of ICT Services, Scotch Oakburn College

Communicate the plan

During the planning process you'll need to communicate your ideas and progress with various stakeholders. At the commencement of the process it will be useful to decide how you'll communicate, with whom and when.

Determine your timeframes

It is important to set aside enough time to allow for the process you've chosen. Your timing may depend on when your other school plans and budgets are prepared. Some education departments and education offices require their schools to report on their ICT planning activity at certain times of the year.

Focus questions – first steps

- If your school is a government or Catholic school, what are the ICT planning requirements of your education department or education office?
- What planning process will work best for your school? Who will you involve and how?
- Who will lead the planning process?
- Which ICT planning framework will you use?
- After you've prepared the plan, how will you communicate it?
- What do you need to include in the plan document?

Assess where you are



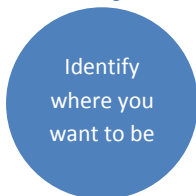
Assess
where you
are

Become familiar with your education department or education office's ICT planning framework, or the national framework: *Digital Education – making change happen*. Frameworks like these enable you to place your school on the continuum of 'undeveloped' to 'advanced' in each of the capability elements, and to identify your strengths and weaknesses. This will help you to define your priorities.

Focus question – assess where you are

- What is your current level of development against each of the elements in the ICT planning framework?

Identify where you want to be



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Once you have assessed where you are you can develop some realistic visions and goals for your school which describe where you want to be. The vision and goals for ICT should support the overall educational vision and goals for the school as determined in the school's strategic plan or improvement plan.

Focus questions – identify where you want to be

- What are your school's main goals for improvement, as identified in the school's overall strategic plan or school improvement plan?
- What is your vision of how ICT will contribute to an improved school?
- What levels of development do you aspire to reach, against each of the elements in the ICT planning framework?
- How will the leadership and management of ICT for improving learning, teaching and administration be distributed across the school?
- How will learning and teaching be improved using ICT?
- What professional learning will teachers and other staff require to effectively incorporate ICT into their daily practices?
- How will school administration be improved using ICT?
- How does your ICT infrastructure need to be developed and how does it need to be managed?

We have a vision to use ICT to further students' learning – to overcome issues in regard to remoteness and ensure our kids have the best learning opportunities available.

– Chris Roberts, Principal, Streaky Bay Area School

Our dream was to build a school to cater for children in the 21st century, and technology is a big part of that. We teach our students to use the same process we went through when coming up with a vision for the school: close your eyes and dream, write down what you've imagined, then work backwards from there to deconstruct the vision.

– Chris Laycock, Head of ICT Services, Scotch Oakburn College

Identify actions



Consider your resources. Each of the goals you identified in the previous step will need funding, staff and services to achieve, some of which might be available from your education department or education office.

Where possible, each goal should be phrased in a way that makes progress towards it measurable, and it should be possible to determine when the goal has been reached. Each goal might require multiple actions and several people to achieve it.

For each action, you need to decide:

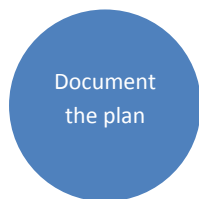
- What – the action identified
- How – how to apply resources

- Who – who will be responsible for each action
- When – timeframes
- Measure of achievement – how to measure progress or success of the action.

Focus questions – identify actions

- If your school is a government or Catholic school, what services and resources are provided by your education department or education office? What do you need to do to access those services and resources?
- What actions will you commit to for achieving your vision and goals?
- What financial and people resources will you allocate to each action?
- Who will be responsible for each action?
- When should each action be undertaken?
- How will you measure the success of each action in achieving your vision and goals?

Document the plan



If there is a template for planning available from your education department or education office you should use it.

The plan should include at the very least the visions, goals and the details of actions (the what, how, who, when).

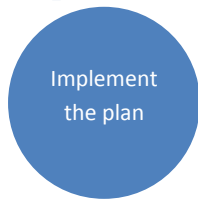
When you have drafted your plan it may be appropriate to seek feedback or approval from your school council or board. The draft may also be disseminated to other stakeholders for comment, and a final version produced.

Focus questions – document the plan

- Who needs to approve the ICT strategic plan?
- Who needs to understand the plan?

We've prepared a plan to be read by the whole school community. It paints a picture of where we want to get to and describes what we are already achieving through stories and case studies.
– Chris Laycock, Head of ICT Services, Scotch Oakburn College

Implement the plan



The final version of the plan can now be disseminated among the key stakeholders.

Responsibilities for actions should be communicated to those responsible. They should receive the resources and the authority required with clear accountability. The school budget should be updated to reflect the decisions. It may also be necessary to update other school plans such as the professional learning plan.

Maintain a record of the progress of the ICT strategic plan and the individual actions that are taking place.

Focus questions – implement the plan

- What changes must be made to other school plans such as the professional learning plan?
- How does the school budget need to be changed so that the required resources are available?
- What are the most important objectives to be addressed in the ICT infrastructure plan? What needs to be developed? What changes need to be made to the support and management of the ICT infrastructure?
- How will responsibilities and accountabilities for actions be communicated?
- How will you monitor progress?

We've found it relatively easy to put our ICT plan into place because our priorities are reachable goals. While it's wonderful to reach for the stars, you need to set realistic goals to keep people striving and making progress.

– Chris Roberts, Principal, Streaky Bay Area School

Review what you've achieved



As with any plan it is important to include a review step. During the review, document the actions you've taken and the outcomes you've achieved as part of your regular planning cycle.

One of the results of monitoring the plan's progress might be realising that some goals are not achievable, or that budgeting estimates were inaccurate. Technology changes

quickly, and so do the circumstances under which a school operates. The ICT strategic plan is therefore most valuable if it can easily be updated when circumstances dictate.

Collect feedback on what has worked well, what has not, and what might be done to improve the process. Do any of the goals need revisiting? Are there new goals that could be incorporated? Are there enough resources? Is there any feedback from the wider community that could be incorporated? Can you provide feedback to your education department or education office?

Such feedback will enable you to produce the next version of the plan.

Focus questions – review what you’ve achieved

- Have the planned actions been undertaken?
- How far have you moved towards achieving your vision and goals?
- What lessons have been learnt?
- What changes could be made when you update your plan?

Assessment or evaluation is important. We decided to use both formal and informal means, and were fortunate to have university mentors working with us. This has helped us to work out where we’re going, how to get there, what to aim for. We revisit this for a continuous cycle of improvement, keeping to the plan but retaining the ability to be flexible rather than adhering to it strictly.

– Chris Roberts, Principal, Streaky Bay Area School

Further information

National programs

There are important national programs that schools should consider when planning.

The Australian Government is funding \$2.2 billion over six years through the Digital Education Revolution (DER). The aim of the DER is 'to contribute sustainable and meaningful change to teaching and learning in Australian schools that will prepare students for further education, training and to live and work in a digital world'. It is providing new computers for secondary schools, higher speed broadband connections, improved professional learning for teachers and new digital curriculum tools and resources. It is important that the funding is introduced and used in ways that support schools' particular educational requirements; secondary schools who apply for funding for computers must have prepared an ICT strategic plan. See:

<http://www.deewr.gov.au/Schooling/DigitalEducationRevolution/Pages/default.aspx>

A national curriculum is being introduced for kindergarten to year 12 which will provide clear and explicit agreement on the curriculum essentials that all young Australians should have access to, regardless of their circumstances or the location of their school. The national curriculum will also provide parents and teachers with a clear understanding of what needs to be covered in each subject at each year level. It will seek to equip young Australians with the skills, knowledge and capabilities that will enable them to effectively engage with and prosper in society, compete in a globalised world and thrive in the information-rich workplaces of the future. See:

<http://www.deewr.gov.au/Schooling/Programs/SmarterSchools/Pages/NationalCurriculum.aspx>

The Building the Education Revolution program is a national \$16.2 billion investment that provides world-class educational facilities, through new infrastructure and refurbishments, to all eligible Australian schools. See:

<http://www.deewr.gov.au/Schooling/BuildingTheEducationRevolution/Pages/default.aspx>

Resources

In many cases, education departments, education offices and independent school associations provide consultants who provide very valuable assistance.

It can also be valuable to draw on the expertise of other schools, parents and friends, and other members of the school community. When involving experts, it is important to remember that ICT strategic planning is about making educational decisions.

There are other useful resources available.

- The Australian Government provides access to useful resources through its website for the Digital Education Revolution.
<http://www.deewr.gov.au/Schooling/DigitalEducationRevolution/Pages/default.aspx>

- Moyle, K. (2006) *Leadership and learning with ICT – Voices from the profession*. Report from Teaching Australia written by Kathryn Moyle, Associate Professor at the University of Canberra. It contains useful information about leadership and professional learning with regard to ICT.
<http://www.teachingaustralia.edu.au/ta/go/home/op/edit/pid/301>
- There has been ongoing co-operation about the use of ICT for schooling amongst Australia's government and non-government school sectors for many years. The *Learning in an Online World* series of documents discuss many aspects of planning. They can be found through the *edna* network at edna.edu.au.
- *Becta* is the government agency that advises British schools about the effective and innovative use of technology throughout learning. Its website provides access to many research and other resources that are relevant to Australian schools. See: www.becta.org.uk.