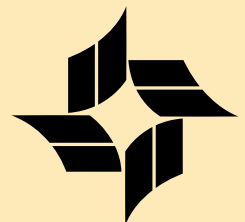# contemporary
learning

learning
in an ONLINE world

MCEETYA
Australia - New Zealand

21st century education integrates technologies, engaging students in ways not previously possible, creating new learning and teaching possibilities, enhancing achievement and extending interactions with local and global communities.

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Contemporary Society

Schooling is embedded in social, political and economic activity. Society significantly impacts on education and on the worlds of students, their families and their schools. Our society is shaped by:

- international interdependency and global engagement

- values, ethics, responsibilities and cultural sensitivity

- communities and economies exploiting communication, information and knowledge

- rapid development and uptake of ICT in work, learning and leisure

- access to technologies and policies to address inequalities.

Technology and Learning

Significant changes have occurred in education and the use of information and communication technologies (ICT) in Australian and New Zealand schools in the years since the publication of *Learning in an online world: the school education action plan for the information economy (2000)*. These reflect inter-related developments in:

- school reform, curriculum, pedagogy and assessment

- ICT in education policy

- teacher confidence and capability to use ICT

- student and parent expectations that technologies will extend individual, group and community learning

- technologies, digital content and services, applications and infrastructure.

National Goals of Schooling

These developments have enabled real progress towards the achievement of the *National Goals of Schooling in the 21st Century* and have increased the capacity of educators specifically to address student outcomes in the use of *ICT ...when students leave school they will be confident, creative and productive users of new technologies...*, (Goal 1.6)

Learning in an online world

Major challenges still exist. Continued collaboration is crucial to achieving the national vision of all schools confidently using ICT in their everyday practices to improve learning, teaching and administration.

Learning in an online world is a series of policy, strategy, frameworks and action plan documents to support jurisdictions and schools in meeting the challenge.

Contemporary learning – learning in an online world is the overarching statement. It describes the environment, articulates the national policy framework and identifies significant actions required.

From birth, students of the current generation inhabit and navigate a highly technological and information rich world that has experienced an information explosion, significant and rapid changes to society, as well as changed national and international economic structures.

Families use ICT for learning, recreation, management, work and daily communication. The online world caters for their needs and interests, creating communities that transcend states and countries. Increasingly, most jobs require ICT-specific skills — significant numbers require high level skills.

Technologies, used by learners of all ages, are rapidly becoming faster, cheaper, mobile, integrated and more powerful. A growing majority of young people are online and active.

21st century students

Young people increasingly live and thrive in the digital environment, comfortable with virtual, screen-to-screen and face-to-face relationships. They take for granted that they can use interactive text, audio and image technologies to observe and participate in world events in real time.

Their approach to learning is influenced by their expectations of 24 hour a day, seven days a week, three hundred and sixty five days a year multiple media communications.

With a mouse click they are able to instantaneously access a wide range of resources and services. Highly connected, they simultaneously do homework, talk on the phone, listen to music, surf the web and maintain conversations on line.

Students demand interactivity in learning, communication, and entertainment. Multi-tasking and parallel-processing are second nature for many. They engage and work with multi-layered packages of non-linear information comprising images, sound, video, text and graphics.

Mobile technologies, chat, blogs, wikis, web cams, reality television and interactive games are intrinsic to their worlds. Current technologies shape their expectations and their abilities to access, acquire, manipulate, construct, create and communicate information.

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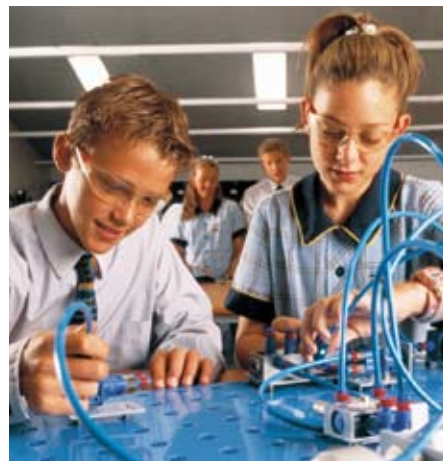
21st century learning

Continuous learning with clear purpose and connection to the real-world is critical to developing the capabilities, dispositions and literacies required to participate in society and to deal with the complexity of issues and change.

Knowledge is situational, complex, diverse and rapidly changing. Learning is inquiry-focussed, requiring application construction and creation of knowledge.

Learners connect understandings across disciplines, applying key concepts and evaluating multiple solutions within ethical frameworks. This requires high levels of personalisation and collaboration.

Pivotal to learning is the innovative application of technologies creating new dimensions in:

- personalisation

- negotiation and risk-taking

- critical, creative and reflective thinking

- problem solving

- knowledge creation and management

- interactivity

- communication and collaboration

- local and global networks

- motivation and learner expectations

- assessment.

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21st century schooling

Innovative new models of schooling that utilise technologies in the redesign of organisational structures and curriculum are required.

Education systems are investing in schools as learning communities with strong partnerships between students, teachers, families and the wider community.

Curriculum is focused on relevance, understanding, rigour and depth, engaging all students in authentic learning. ICT capabilities are integral to improved learning outcomes that enable young people to engage effectively with and work in an increasingly complex world.

Innovative and effective use of ICT is transforming pedagogies, empowering teachers and support staff to focus on student-centred active and interactive learning.

Equity

The *National Goals for Schooling* recognise the capacity of all young people to learn and the role of schooling in developing that capacity.

Strategic integration of ICT in teaching and learning increases options, access, participation and achievement for all students. It significantly enhances the education experience for those:

- living in rural and remote communities
- with a diverse range of individual learning needs
- with physical disabilities
- at risk of disengagement.

Overarching actions

Strategies are needed to progress the national vision of all schools confidently using ICT in their everyday practices to improve teaching, learning and administration. Integrated action across the following areas is required:

- people
- content
- infrastructure
- research
- policy and reporting.

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Quality teaching that integrates ICT and personalises learning for students, teachers and the education community depends on:

- contemporary pedagogical knowledge and skills

- appropriate learning environments

- understanding the potential uses of ICT

- knowledge of current and emerging technologies

- proficient use of ICT for learning, teaching and management.

Jurisdictions are committed to investment in leadership, professional learning and workforce planning, to build the capability of using ICT for transforming learning.

Learners

ICT capabilities and digital literacy are essential skills. The use of ICT will make significant gains for learners across all ages and curriculum areas:

- connecting to relevant experiences, resources and information

- extending the depth and nature of learning

- creating personalised learning spaces

- providing flexibility in time, place and pace

- supporting communication and collaboration across communities

- improving access, participation and achievement

- making learning and teaching more effective and efficient.

Professional Learning

Pre-service education and continuous in-service professional development empowers teachers and supports staff to critically integrate ICT in learning and teaching by:

- focussing on learning improvement and school transformation

- addressing the multiple, interactive dimensions of ICT use

- listening to and empowering students

- providing tools to evaluate levels of integration of ICT in learning

- improving personal learning plan efficiency

- developing collaborative networks.

Leadership

Jurisdictions recognise the critical importance of educational leadership and will continue to invest in:

- developing required competencies

- equipping principals, teachers and support staff with the knowledge, skills, tools and experience to transform the use of ICT

- connecting and supporting leaders

- developing partnerships between school, home and community.

Online curriculum content extends learning possibilities and broadens schooling options. A continuous supply of quality content, tools and services is essential to:

- students developing a life-long capacity for learning and knowledge generation
- students using online content from home, school and the community
- teachers using online curriculum content to maximise learning.

Jurisdictions have invested significant public funds in developing online curriculum content, available to students through school, distance, virtual and community-based education programs.

Online Content

Ministers of Education in Australia and New Zealand will continue collaborating to ensure a financially sustainable supply of high quality online curriculum content by:

- building on the work of the Le@rning Federation to procure further shared content
- influencing standards and specifications relevant to education
- delivering open, transparent and standard agreements for sharing of educational resources and associated intellectual property

- integrating online curriculum content into teachers' assessment practices
- contributing to the capability of the Australian educational multi-media industry.

Jurisdictions will continue to provide teachers and students with access to high quality public domain online curriculum resources.

Tools and Services

National and jurisdiction initiatives will progressively provide teachers and students with tools, systems and services:

- delivering digital content, learning sequences and feedback
- enabling teachers and students to create, evaluate, customise and share online resources
- supporting collaborative learning projects
- facilitating communication and reporting.

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infrastructure

Well architectectured, engineered and supported infrastructure is critical as:

- learners increasingly use online tools and resources

- teachers access and use student and administrative data online

- students, families and organisations access information online

- jurisdictions and schools use ICT as a reform and management tool.

Significant investment in quality infrastructure has increased student and staff access to technology, with most schools connected to the internet and increasing numbers using broadband.

Jurisdictions are progressively working towards the following goals.

Connectivity

School education will have access to reliable and affordable bandwidth and robust, effective networks:

- supporting fast, simultaneous internet access

- extending collaboration and sharing

- delivering services to remote students

- improving access for students with a diverse range of learning needs

- supporting the use of rich media resources.

Learning Architecture

Learning Architecture will facilitate a seamless, secure and robust ICT environment:

- interfacing curriculum and administrative systems

- delivering learning, administrative and management efficiencies.

Hardware and Technical Support

Schools will meet jurisdiction targets for hardware, software and standardised operating systems and have access to timely technical support:

- increasing student and staff access to appropriate tools for learning

- supporting sustainable investment.

Emerging Technologies

Jurisdictions will share applications of emerging technologies with the potential to enhance learning, teaching, administration and decision making:

- supporting education innovation and evaluating cost effectiveness.

Learning Spaces

School, home and community spaces will increase flexibility, with learning taking place outside the boundaries of school buildings and beyond the school day:

- requiring connected access to resources anywhere, anytime.

Policy development, decision-making and school transformation are underpinned by research, quality data, evidence and critical evaluation.

The innovative use of information communication technologies:

- provides the education community with easy access to education research

- supports collaboration between teachers, students, researchers and the community.

A Public Resource

Access to school-related research will be maximised through a dedicated online service:

- building relationships between researchers and educators

- supporting informed professional and public debate

- providing access to research funded by MCEETYA and jurisdictions

- connecting to research funded by the Australian Government and research associations

- linking to international research.

Jurisdictions are progressively providing access to research findings through portals and online services.

A sustainable online service in line with best practice in international education will require collaboration between the ICT in Schools Taskforce, national research associations, professional associations and the National Institute for Quality Teaching and School Leadership. Options are currently being investigated.

ICT in Teaching and Learning

The role of ICT in teaching and learning will be better understood through strategic deployment of finite research resources.

An agreed framework focuses research on current, emerging and future challenges:

- articulating a vision for ICT research for school education

- identifying principles and priorities

- providing strategic direction for the allocation of research funds

- informing teaching, learning and assessment

- informing policy.

policy and reporting

Powerful learning, teaching and management environments are being created using transforming technologies.

Integrated curriculum and data systems are providing new opportunities for teachers and leaders to use evidence to inform policy and practice. Jurisdictions are implementing programs that:

- use student data to inform teaching, learning, assessment and reporting

- longitudinally track and analyse student access, participation and achievement

- use data to inform policy, evaluate programs and improve business practices.

Reforms are raising new regulatory and policy issues.

Policy and Regulation

Changes to telecommunications and copyright regulatory systems are needed. The school sector will continue working nationally to inform governments and to influence policy.

Jurisdictions are addressing policy issues in areas including:

- equitable access and opportunity

- workforce reform

- flexible learning

- community access and partnerships

- online assessment and reporting

- identity management and security

- copyright, intellectual property and digital rights management.

National Goals of Schooling

Assessing ICT literacy is a part of the national plan for reporting student achievement against the National Goals for Schooling in the 21st century.

From 2005, every three years, a national test will assess the ability of a sample of years 6 and 10 students to use ICT to participate in society.

Learning in an online world

Progress in implementing the goals and strategies of *Learning in an online world* will be monitored through:

- annual *Learning in an online world* progress reports to Ministers

- reports on ICT literacy testing outcomes

- reports on international assessment and benchmarking projects.

challenge

The challenge is to ensure all schools transform and optimise their use of technology to provide a relevant, sustainable 21st century education.

This requires:

- workforce capability frameworks supported by accreditation, effective leadership, pre-service and in-service education programs

- school and community structures supporting connection and contribution to local and global societies

- coherent curriculum, learning, teaching, assessment and reporting frameworks that harness the power of ICT in visionary and innovative ways

- quality online curriculum content tools and services

- reliable, integrated, technically - supported infrastructure

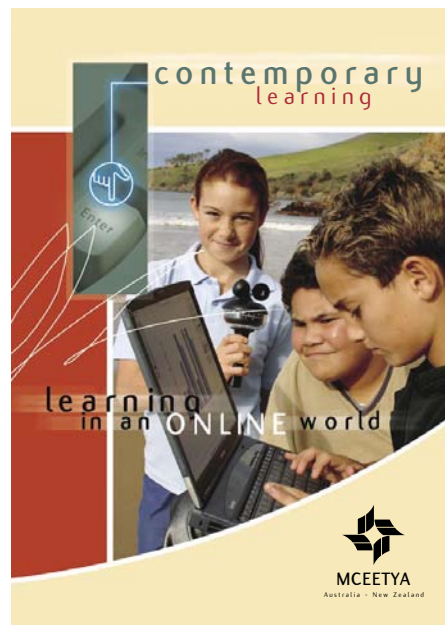- an evidence-base for policy, teaching and learning strategies.

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Further information regarding this publication can be obtained from:

icttaskforce@mceetya.edu.au

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(2005)

Strategies

Research Strategy (2003)

Content Strategy (2004)

Pedagogy Strategy (2005)

Leadership Strategy (2006)

Monitoring and
Reporting Strategy (2007)

Frameworks

Learning Architecture
Framework (2003)

Content Specifications
Framework (2006)

Learning Spaces
Framework (2007)

Action Plan

Bandwidth Action
Plan (2003)