

Networked to learn



An Introduction to the Tertiary Information Strategy



NEW ZEALAND QUALIFICATIONS AUTHORITY
MANA TOHU MĀTAURANGA O AOTEAROA





The Tertiary Information Strategy – creating a networked knowledge society

The successful development of New Zealand's emerging knowledge society and economy will require opportunities for all New Zealanders to keep learning throughout their lives. Internet-based technology will play an increasingly important role in our efforts to meet the diverse learning needs of New Zealanders.

Over the past decade, the internet has revolutionised not only the way New Zealanders access and share information, but also the way they learn and manage learning. E-management and e-learning are exciting developments which have the potential to improve the quality of delivery and service to tertiary learners, and increase the participation of particular groups of learners.

Internet-based technology is also changing the way education providers connect with one another and with government. A recent stocktake of tertiary data collected from providers highlighted the need to streamline data collection so that compliance costs for the sector were reduced. The internet has the potential to address this issue by supporting more effective and efficient administration and data-sharing between central agencies and providers.

A range of internet-based initiatives are already underway which are enhancing the reach and responsiveness of educators and agencies. The popularity of the Ministry of Education's TKI portal with educators demonstrates what can be achieved through collaborative networks.

While many tertiary providers are already using the internet to connect with learners for administration and learning activities, New Zealand needs a comprehensive Tertiary Information Strategy to address the key ICT issues facing the sector and connect all tertiary education providers, central agencies, learners and potential learners in the coming years.


The successful implementation of the Tertiary Information Strategy will be central to New Zealand's ability to participate in a high-technology world. For a new generation of learners who are already 'digital natives', the internet is a preferred learning mode. New levels of computer literacy combined with major advances in technology are making e-learning an increasingly appealing learning option for a new generation of learners.

E-administration and e-learning are identified in the government's Tertiary Education Strategy 2002 – 2007 as having an important role to play in strengthening our tertiary system's capability and quality and its ability to meet diverse learner needs.

The Tertiary Information Strategy is about maximising the potential of the internet to benefit learners and the tertiary sector as a whole. The Strategy is designed to achieve greater collaboration and connection within the tertiary sector and stronger links between the sector and other stakeholders and communities.

In this way, the Tertiary Information Strategy will contribute to key national goals contained in the Tertiary Education Strategy – developing the skills New Zealanders need for a knowledge society, contributing to the educational success and development aspirations of Māori and Pacific peoples and strengthening the uptake of research and knowledge.

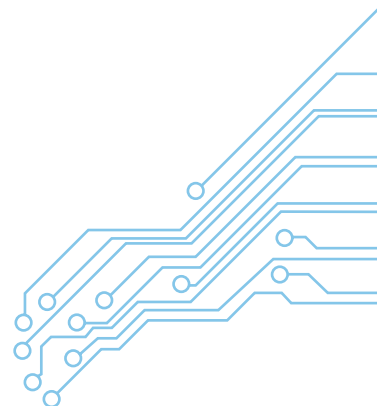
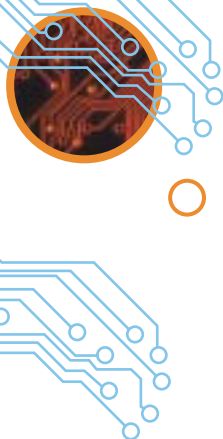
Creating e-management systems and e-learning opportunities that are robust enough to meet increasing demands for improvements in quality and flexible enough to adapt to rapid technological change will be a significant challenge for the tertiary sector. The sector is diverse with many participating providers and organisations and nearly 400,000 learners.



New Zealand needs to make best use of its limited resources to develop its e-management and e-learning tertiary infrastructure. This will require much greater collaboration and co-ordination of effort within the education sector and across government. The government's central education agencies will play a leading role in establishing new models of collaboration within the sector and developing new internet-based, e-administration and learning support services.

The Tertiary Information Strategy will streamline existing tertiary information collection and exchange between providers and government, and enhance administration services and learning pathways for learners.

All those involved in tertiary sector administration, learning or ICT planning and development should familiarise themselves with the Strategy. This document provides a brief overview.



The Tertiary Information Strategy – key aims

The Tertiary Information Strategy provides a clear, strategic vision for using internet-based technology in the tertiary sector. The aim of the Strategy is to:

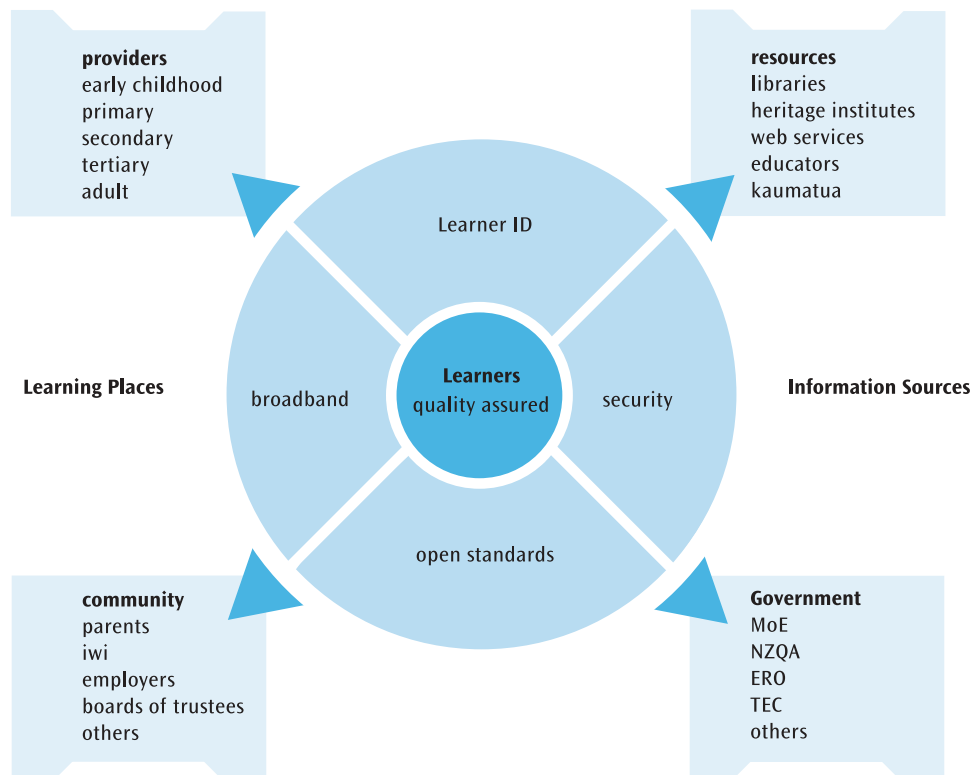
- create a connected, collaborative environment for tertiary administrators, providers and learners
- improve the administration of the sector as a whole and reduce compliance costs
- align ICT systems across the sector by providing a framework for ICT development based on open ICT standards
- empower learners to keep learning throughout their lives and remove barriers to learning
- improve information flows and access to learning and resources, and

- open up new learning pathways that support a diverse range of learning styles.

The Tertiary Information Strategy will help to shape and create a dynamic community that connects providers, learners, libraries, relevant government agencies as well as other community groups such as iwi, employers and parents.

This vision of a fully 'connected' knowledge society, linked by computer, with the learner at the hub of the system is captured in the diagram below.

The creation of a single electronic point of entry or portal for the tertiary sector will significantly enhance New Zealand's tertiary education infrastructure. Many more New Zealanders will gain access to a wide range of information, services, and resources offered by New Zealand's tertiary education sector.





The benefits

The benefits of implementing the Tertiary Information Strategy will be many. There will be significant improvements in the cost-effectiveness and quality of tertiary management and administration and, over time, enhancements to the value and variety of learning experiences and increased flexibility in delivery.

Key benefits are:

Tertiary administrators and managers

E-administration will eliminate the need to supply similar data to multiple central agencies for funding, reporting and monitoring purposes. Information will be able to be sent to and accessed from a single point reducing compliance costs and duplication of effort and improving the speed and efficiency of services for both providers and central education agencies.

The Tertiary Information Strategy will create a single 'shop front' with better quality, integrated information, data and learning support services for customers.

Government agencies

The Tertiary Information Strategy will improve access to quality information for all the government agencies. It will rationalise the collection of tertiary education data, facilitate closer working relationships between agencies and provide the chance to share investment in ICT software and hardware.

Learners

In the years ahead it is envisaged that learners will be able to access a wide range of services tailored to their needs, spanning all aspects of the tertiary sector. Better access to information

will broaden choice and open up new learning pathways. Information will be provided in ways that are easily accessed, and users will be able to become more self-sufficient and self-reliant. In years to come, it is anticipated that learners and potential learners will be able to enrol, learn, be assessed and transfer credit between providers and qualifications using this portal.

Tertiary education institutions

The new level of interoperability will help tertiary providers extend their reach, deliver a wider range of learning information and services to more people and tailor learning more closely to individual needs. It will also lower costs in dealing with central agencies so that electronic information only needs to be provided once.

Holders and developers of tertiary information and resources

A fully-connected tertiary sector will broaden the range and number of people who can access tertiary sector information and enable information and services to be distributed and shared more easily.

Researchers

Tertiary information and research will be able to be accessed, exchanged and shared much more easily.

Tertiary sector information technology managers and planners

The new network will assist each tertiary provider or organisation to ensure their own IT developments are in line with sector-wide developments and enable their organisation to become part of a sophisticated, learner-responsive, nationally-linked community.



How a networked tertiary community will work

The Tertiary Information Strategy will:

- create a 'one-stop shop' via a single entry portal which enables the collection and dissemination of a wide range of tertiary information and resources at the click of a mouse
- streamline current data collection by central government agencies and reduce compliance costs for providers. Rather than having to deal with multiple agencies and systems, users will simply access the entire electronic tertiary community through a single entry point or portal
- provide authorised users with easy access to a wider range of tertiary sector learning information and resources than ever before, giving them greater choice and flexibility
- provide users with proactive support and advice to help maximise their use of online information and resources.

Who will be able to use the connected tertiary system?

The new system will be available for use by authorised users including:

- tertiary providers, managers and administrators, academic and teaching staff
- learners and potential learners
- researchers and research organisations
- government tertiary education agencies – Ministry of Education, Tertiary Education Commission, New Zealand Qualifications Authority, Career Services
- other government agencies
- iwi
- employers and businesses
- community organisations.

Guiding principles of the Tertiary Information Strategy

The agencies and organisations involved in the Tertiary Information Strategy have agreed to develop a connected education community in accordance with the following principles:

- the internet will be the main way that information is accessed and shared
- the system will be developed in an open, inclusive and collaborative manner
- data and information will be collected and shared for multiple purposes
- the system will be simple to use and reflect the current diversity of tertiary sector information technology. The system will allow tertiary participants to 'talk to one another' and use 'open standards' for exchanging information and data
- the privacy of users will be safeguarded
- systems will be in place to ensure all information is reliable and accurate
- the connected community will be developed in a way that is cost-effective for providers and users.

These principles will guide all future developments and ensure that New Zealand's emerging e-learning community complements and enhances our existing tertiary sector and the government's Tertiary Education Strategy reforms.

The Technical Foundations of the Tertiary Information Strategy

Much of the Strategy's initial development work involves sorting out the technical requirements for connecting all the various elements of New Zealand's tertiary community – tertiary providers, government agencies, libraries and learners.

Common protocols and standards are being established for accessing and exchanging information. A common information directory will be developed.

This open, collaborative approach to technical development will underpin all work on data and information created for the networked tertiary community.

Standards and guidelines will be published that ensure a 'whole-of-government' and 'whole-of-sector' approach to developing virtual services and information. This will be done in a way that enables education agencies and providers to maintain their distinct roles and autonomy, whilst enabling users to benefit from a fully-integrated service accessed through a single portal.

Key features

The technical hallmarks of the connected tertiary sector will be:

- **Interoperability** – many types of ICT systems will be able to be connected and information will be usable on all of them
- **Collect once, use often** – information collected by one participant will be able to be used often by multiple users. This will avoid duplication of effort and help to eliminate inaccuracies
- **Ownership of information stays where it belongs** – those who 'own' information will be responsible for guaranteeing its quality and ensuring access to other participants.
- **A web-based collaborative language** called XML will be used to ensure documents can be easily created, transmitted and shared across the web.

Ensuring reliability and integrity of information

There will be one authoritative, electronic source for all tertiary sector information.

Emphasis will be placed on providing users with high-quality, up-to-date information in a form they can use and in a timely manner.

Protecting privacy

To protect privacy, all users will be given secure, personalised access to the system. Any data collected about the new system will be aggregated and used in a way that does not identify individual users.

Strategy implementation timeline

Creating a 'boundaryless', connected tertiary community is a major undertaking that will take place over a number of years. The Strategy has been organised into three stages of development.

Stage one: preparing the ground

During this phase officials will work with sector reference groups to set medium-term goals, identify best practice here and overseas and create an information map which identifies who holds what data and who is responsible for making it available and ensuring its quality.

Stage two: establishing the framework

During this phase common standards and protocols will be established for exchanging information. Processes for collecting and disseminating data will be organised to avoid duplication of effort and resources. A connected tertiary sector will be created based on

collaboration and knowledge-sharing between all participating government agencies and tertiary providers.

Stage three: developing virtual services and creating a tertiary portal

The final phase of the project will see the creation of a tertiary portal that makes information and services available to a wide range of audiences and links the tertiary sector to other sectors. Over time, it is expected that the sector will develop its own virtual information culture. A key focus will be to identify and provide the kinds of information people want and assure its high quality.

Stage one of the implementation process will be completed by the end of 2003 and work on stage two of the project will commence in 2004.

Where to from here

A consultation process is accompanying phase one of the strategy implementation. The latest version of the strategy has been published on the STEP website www.step.govt.nz and comment on the strategy has been sought from the sector. All feedback will be analysed and will inform the future development of the strategy. Consultation with the sector will continue with the next round of Tertiary Sector Roadshows.

A draft work programme for government agencies has been developed and is being actioned. It too will be modified in light of sector feedback. A work programme, detailing sector involvement in the strategy implementation, will also be published following consultation.

For further information

The Ministry of Education is the lead agency in the Tertiary Information Strategy.

For further information visit:

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or

www.ted.govt.nz

