

ICT Strategic Framework for Education Supporting Information

Introduction

Expenditure in ICT across early childhood, schools, tertiary education organisations and government agencies represents a significant investment. The Education Sector ICT Standing Committee (Standing Committee) was established in September 2003 to oversee the collaborative development and use of ICT across the education sector by taking a whole of sector approach, thereby avoiding duplication of effort and higher compliance costs.

The Standing Committee comprises the chief executives of Career Services rapuara, Education Review Office, New Zealand Qualifications Authority, Teachers Council, Tertiary Education Commission and National Library of New Zealand, with the Secretary for Education as Chair.

Since the establishment of the Standing Committee in 2003, there has been a focus on:

- a. developing a more collaborative culture amongst the agencies;
- b. how investment in ICT can support increased system performance, i.e. student achievement, relevance to stakeholders, quality teaching and affordability to students, government and employers; and
- c. developing joint approaches to governance of ICT in the sector.

A key output of the Standing Committee is the development of the **ICT Strategic Framework for Education** to provide the mechanism to guide and co-ordinate the sector's ICT investment towards the government's vision of improved education outcomes. It seeks to improve learner achievement in an innovative education sector, fully connected and supported by the smart use of ICT.

The Strategic Framework is aligned with, and supports, the government's goals and education priorities as well as the e-Government and National Digital Strategies, and the international e-Framework for Education and Research (refer to paragraph 2, page 2) to ensure the benefits of increased collaboration and cooperation between national and international partners are realised.

What has been achieved so far

Outlined below are examples from the wide range of collaborative and coordinated ICT initiatives undertaken by the agencies and the sector that are contributing to the achievement of the 2010 targets of the Strategic Framework.

1. The **Education Sector Architecture Framework** (ESAF) is a cross-sector suite of projects delivering core common or 'shared' services to the education sector. These shared services will enable education sector participants to share a common understanding of data and information; transfer information based on business rules; identify themselves; access services and information; and locate services and information within the sector.

Examples of these shared services include:

- **Education Sector Authentication/Authorisation (ESAA):** a single sign-on and identity management service for the education sector. Stage 1 of ESAA provides a fully functional authentication and authorisation service across five selected NZQA, TEC and MoE applications within the tertiary sector (replacing the legacy Single Internet Authentication (SIA) service). Stage 2 (2006/07) will roll-out the ESAA service to a wider range of education sector applications.
 - **Education Sector Integration Services (ESIS):** This will establish a common platform for data exchange, supporting interoperability between education sector organisations and systems, eliminating the need for the point-to-point interactions that exist today and improving access to, and management of, shared sector data. The first stage of this project focuses on school data exchange processes and will extend to include tertiary and early childhood processes.
 - **Education Sector Data Model (ESDM):** a sector data model has been produced that defines a common framework for shared sector data. Cross-agency agreement was reached that the ESDM be used as the basis for sharing data.
 - **Education Sector Federated Search (ESFS):** a search brokerage service which connects to key sector and international electronic catalogues in order to provide a sole point of access to educational related information. (A pilot of the ESFS service can be found at www.elearn.govt.nz)
 - **Education Sector Metadata Schema (ESMS):** enabling a common understanding of data and information to improve functionality and accuracy of sector searches and to enable more efficient and interoperable metadata management across the sector.
2. The New Zealand's Ministry of Education (on behalf of the Standing Committee and the Ministry of Research, Science and Technology) have signed a Memorandum of Understanding with U.K's Joint Information Systems Committee (JISC)¹ which will see close cooperation between the two organisations around the development of the **International e-Framework for Education and Research** initiative and the exploration of other potential areas for collaboration.

The e-Framework initiative is exploring more flexible approaches to the technical infrastructures for e-learning, e-research and e-administration. The development of such a service-oriented technical framework, based on open standards, will, it is argued, maximise the flexibility, interoperability and cost-effectiveness of IT systems.
 3. **EdCentre** (www.edcentre.govt.nz) is a portal that provides useful and relevant education information to parents, learners, educators, governance bodies, researchers and communities. The portal is a result of a joint ICT initiative between the education sector agencies and the National Library.
 4. The **National Digital Heritage Archive** collects, preserves in perpetuity, and makes accessible documents in all media that are part of New Zealand's cultural heritage. The development of the archive is a collaborative project between the Ministry of Economic Development and other government agencies and is lead by the National Library.
 5. **Electronic Purchasing in Collaboration (EPIC)** provides access for every New Zealand citizen through libraries to New Zealand and international e-content, including more than 16,000 full text journals. Lead by the National Library, partners in this project include the Ministry of Education and the library sector.
 6. **Schools Network Upgrade** is a programme that offers support to upgrade the ICT infrastructures of small schools with no network (stage 1 of the programme), and all

¹ JISC is responsible for ICT innovation in further and higher education in the UK.

remaining schools that have no network (stage 2). Significant milestones have already been achieved. Schools in the programme have reported that there has been a much higher uptake of ICT inclusion and integration across a wide range of curriculum areas. It appears that increased confidence in the network has allowed teachers to trial new ideas, resources and equipment in classrooms.

7. The **e-Admin** programme of work over the last few years has looked at ways of supporting and enhancing IT administration systems for schools and early childhood centres. As e-Admin development continues, two projects that are already enhancing IT administration systems are:
 - The roll-out of **Enrolment Management Systems (EMS)** for intermediate and secondary schools has replaced paper-based processes with web-based applications, thereby improving data quality and reducing compliance costs in the sector.
 - **Student Management Systems (SMS) for schools** is a collaborative initiative between the MoE, NZQA and SMS vendors to encourage vendors to meet standards via an accreditation process. Accredited vendors of SMS improve the quality of data from schools and ensure consistency in reporting from schools to government.
8. **CLiK** (Connecting Learning Information and Knowledge) is a project that will ultimately provide an effective web presence for the education sector by building an integrated platform with business process management tools, effective data searching and management, document and records management and collaborative tools and services, such as online communities. The platform, and its tools and services, will be leveraged by many websites, including **Te Kete Ipurangi** The Online Learning Centre (www.tki.org.nz).
9. **Better Tertiary and Trade Training Decision Making:** This new initiative by Career Services will enable learners to navigate and manage their way through tertiary and trade training information, which will ensure a more comprehensive understanding of their decisions and connections with the labour market. Detailed scoping and design work is currently underway for this initiative.
10. The National Library are facilitating a pan-government, pan-sector **New Zealand Digital Content Strategy**, which will map content resources around New Zealand and propose a framework to pull together digital access to all these resources for all citizens. Government has released a Discussion Document on the Draft New Zealand Digital Content Strategy for consultation. Further information can be found at www.digitalcontent.govt.nz.

Further Information

For further information regarding the Education Sector ICT Standing Committee, ICT Strategic Framework for Education, or any of the initiatives outlined in this document, please email: **ICT.Sector@minedu.govt.nz**

All documentation relating to the ICT Strategic Framework for Education consultation is available online at **www.minedu.govt.nz/goto/ictframework**