



**Australian Government**  

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**Department of Education,  
Science and Training**

# An Overview of Government Sponsored e-learning Activities in Australia

Seoul

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# Topics

- **Historical context**
  - History helps identify new trends
  - Federated system of government
  - Cultural factors
- **Government Policies & Programs**
  - EdNA
  - The Learning Federation
  - MCEETYA ICT Taskforce
  - ANTA Flexible Learning Framework
  - Higher Education programs
- **Common Services**
- **Research & Development**

# Historical Context

- A long history in distance education
- Australia an early adopter of new technologies
- An environment receptive to the benefits of ICT in education
  - Open Learning Australia – affordable & flexible access
  - Cooperative Multimedia Centres
  - Australian Academic Research Network (AARNet)
- **Well-developed collaborative framework**
  - EdNA, AICTEC
  - involves all education & training authorities
- **Interoperability Standards agenda**

# Government Policies & Programs

## Recognition of strategic role of ICT

- 1994 - Creative Nation
- 1996 - EdNA
- 1997 - NOIE
- 1998 - Online Australia
- 2000 - Learning for the Knowledge Society
- 2000 - Backing Australia's Ability
- 2002 - Advancing Australia's Info Economy
- 2003 - Backing Australia's Future
- 2003 - Shared Technology

# Government Policies & Programs

(more info)

- **Creative Nation** (cultural policy statement!)  
[www.dcita.gov.au/Article/0,,0\\_1-2\\_1-4\\_10895,00.html](http://www.dcita.gov.au/Article/0,,0_1-2_1-4_10895,00.html)
- **National Office for the Information Economy (NOIE)**  
[www.noie.gov.au](http://www.noie.gov.au)
- **Learning for the Knowledge Society**  
[www.dest.gov.au/schools/publications/2000/learning.htm](http://www.dest.gov.au/schools/publications/2000/learning.htm)
- **Backing Australia's Ability**  
[backingaus.innovation.gov.au/docs/final\\_BAB.pdf](http://backingaus.innovation.gov.au/docs/final_BAB.pdf)
- **Our Universities: Backing Australia's Future**  
[www.backingaustraliasfuture.gov.au](http://www.backingaustraliasfuture.gov.au)
- **Shared Technology (ANTA)**  
[sharedtechnology.net.au](http://sharedtechnology.net.au)

# Education Network Australia



- **Began as connectivity initiative (1996)**
- **EmergEd as a collaborative framework (1998)**
  - K-12 (public, independent & church school authorities)
  - Vocational Education & Training
  - Higher Education
- **RedevelopEd as suite of Web-based services**
  - Aggregator of quality assured web-based resources
  - Facilitator of online networking
  - 'wholesale' & 'retail' Web services
- **Customized information & portal services**
  - Metadata (harvesting & export)
  - Content syndication (RSS news feeds)
  - Federated search services



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## Schools ICT Taskforce

- One of seven schooling sector standing taskforces established in July 2001
- Advises Ministers on ICT matters
  - Bandwidth
  - Research
  - e-Pedagogy
  - Standards & Interoperability
  - Learning Architectures
  - The Learning Federation
- 2001: Endorsed implementation of *Learning in an Online World*: the school action plan for the information economy



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## **Schools ICT Taskforce**

### *Learning in an Online World*

- **Research Strategy**

[www.curriculum.edu.au/mctyapdf/16aagenda.pdf](http://www.curriculum.edu.au/mctyapdf/16aagenda.pdf)

- **Learning Architecture Framework**

[www.curriculum.edu.au/mctyapdf/25aagenda.pdf](http://www.curriculum.edu.au/mctyapdf/25aagenda.pdf)

- **Bandwidth Action Plan**

[www.curriculum.edu.au/mctyapdf/47aagenda.pdf](http://www.curriculum.edu.au/mctyapdf/47aagenda.pdf)





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## **Schools ICT Taskforce**

### *Learning in an Online World*

- **Learning Architecture Framework (July 2003)**  
MCEETYA endorsed its publication & distribution to Ministers, senior education leaders, peak industry groups and vendors; and  
  
Supported the investigation of opportunities for national collaboration on infrastructure, procurement of software and licences, and school sector input to national standards initiatives.

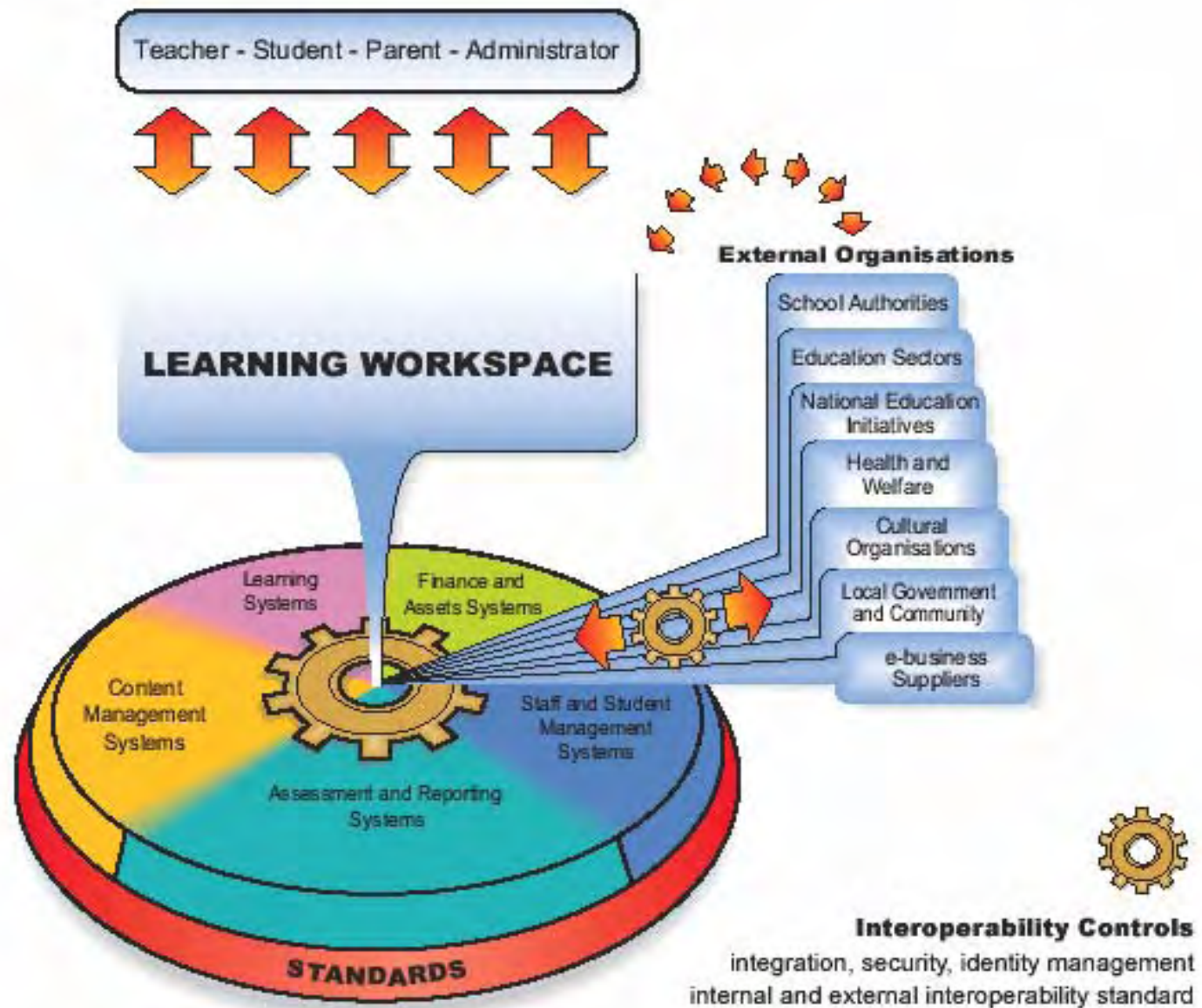


Figure 1: Overview of a Framework for Learning Architecture



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## Learning Architecture Framework - Benefits

- **Flexibility**
  - Solutions that adapt to new business challenges & technologies as they arise
- **Interoperability**
  - Systems sharing data & services
- **Reusability**
  - Achieving maximum value from modular resources
- **Efficiency**
- **Durability**
  - Avoiding rapid obsolescence



2001-2006

## Aims

- To develop high-quality **reusable** online curriculum content, suitable for Australian & New Zealand schools
- To support distributed access
- To stimulate commercial contributions to the pool of material

## Agreed Specifications

- Content quality
- Curriculum mappings
- Metadata application profile
  - Administrative
  - Technical
  - Educational
  - Accessibility
  - Rights
- Distribution chain
- Testing environment (BELTS)

## Agreed Specifications (2)

- IMS content packages
- LOM metadata (IMS XML binding)
- SOAP
- W3C Accessibility level double A
- XHTML 1.1

## Agreed Specifications (yet to implement)

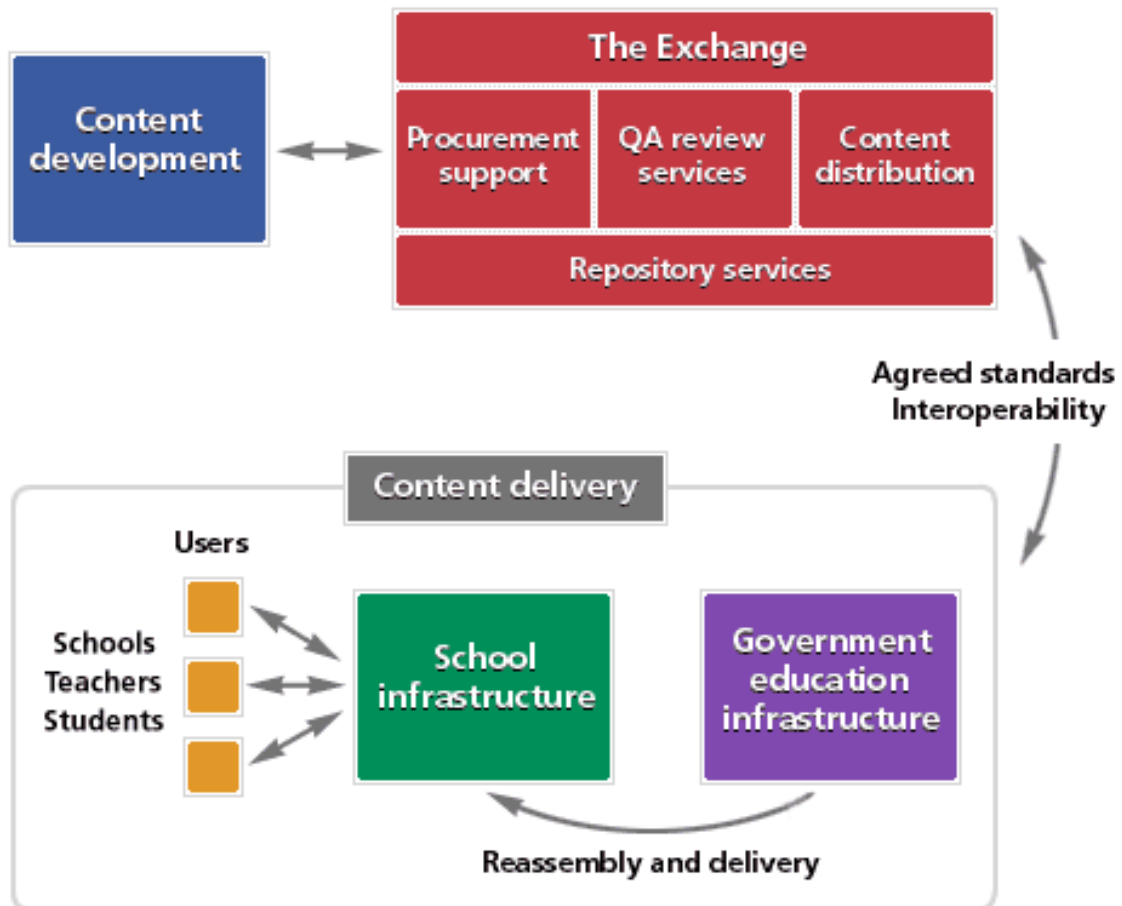
- IMS DRI
- IMS QTI
- IMS LIP
- IMS Simple Sequencing
- ADL SCORM runtime

## Current summary

- **Specifications critical to TLF success**
  - Interoperability, legislation, quality
- **Application Profile development**
  - Accommodating local requirements
- **New context for content developers**
  - Best practice emerging



### Development, Management and Delivery of Online Curriculum Content



# ANTA Flexible Learning Framework

- **Promotion of flexible learning within the VET sector**
  - Creating & sharing knowledge about flexible learning
  - AUD\$ 20 million per annum
- **Focus on five key areas**
  - People & professional development
  - Supportive technological infrastructure
  - 'world-class' online content development
  - Ongoing policy development
  - Problem-solving regulation

# ANTA Flexible Learning Framework

## Current Projects

- Quality E-Learning Resources (Toolboxes)
  - collections of learning activities & resources to support VET qualifications
  - independent of Learning Management Systems
- VET Learning Object Repository
  - specifications for LO repositories within VET
- EdNA VET Online
- Collaborative Interoperability
  - demonstrating interoperability
- Online Assessment Strategies and Models
- VET Training Portal

[www.training.com.au](http://www.training.com.au)

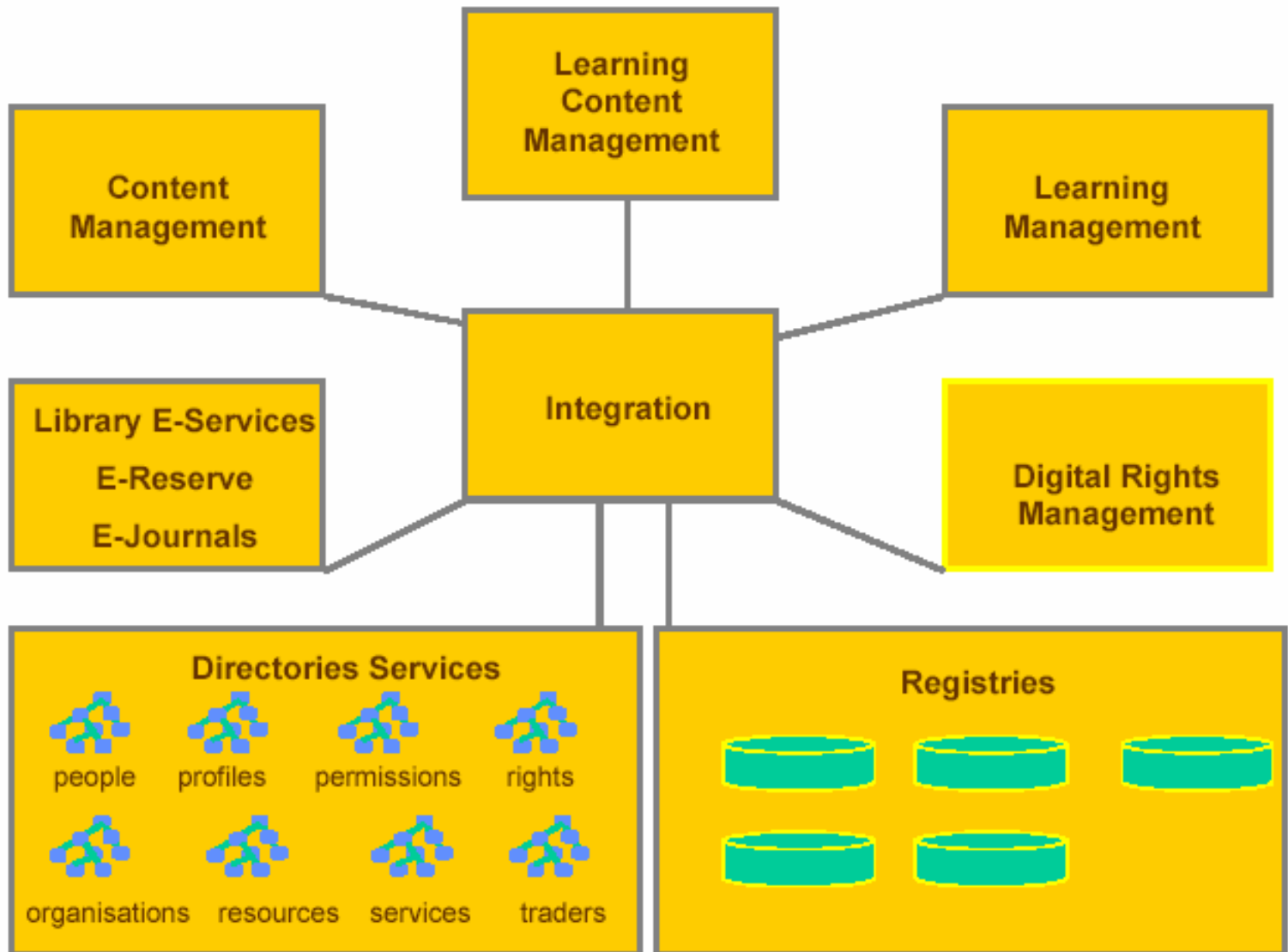
# Higher Education Programs

- **Sector-wide programs a challenge**
  - Consortia initiatives (COLIS, ATN, AARLIN, U21)
- **Backing Australia's Future**
  - Higher education reform policy
  - Informed by Knowledge & Innovation Review
  - Focused on e-Infrastructure (e.g., quality research output available via distributed repositories)
  - Supportive of better collaboration
- **Systemic Infrastructure Initiative**
  - High Performance computing
  - Bandwidth (AREN, GrangeNet)
  - Research Information Infrastructure
  - Interoperability Standards (IMS)

# Higher Education Programs

- **Demonstrator Projects important**
  - Within & across higher education institutions
  - COLIS
- **Distributed institutional repositories**
  - Scholarly information
  - Managing research output more effectively
  - Federated, interoperable, and accessible
- **Middleware development**
  - Next phase of interoperability standards agenda
  - Authentication & authorization – Identity management
  - Defining & developing common services and interoperable systems across institutions

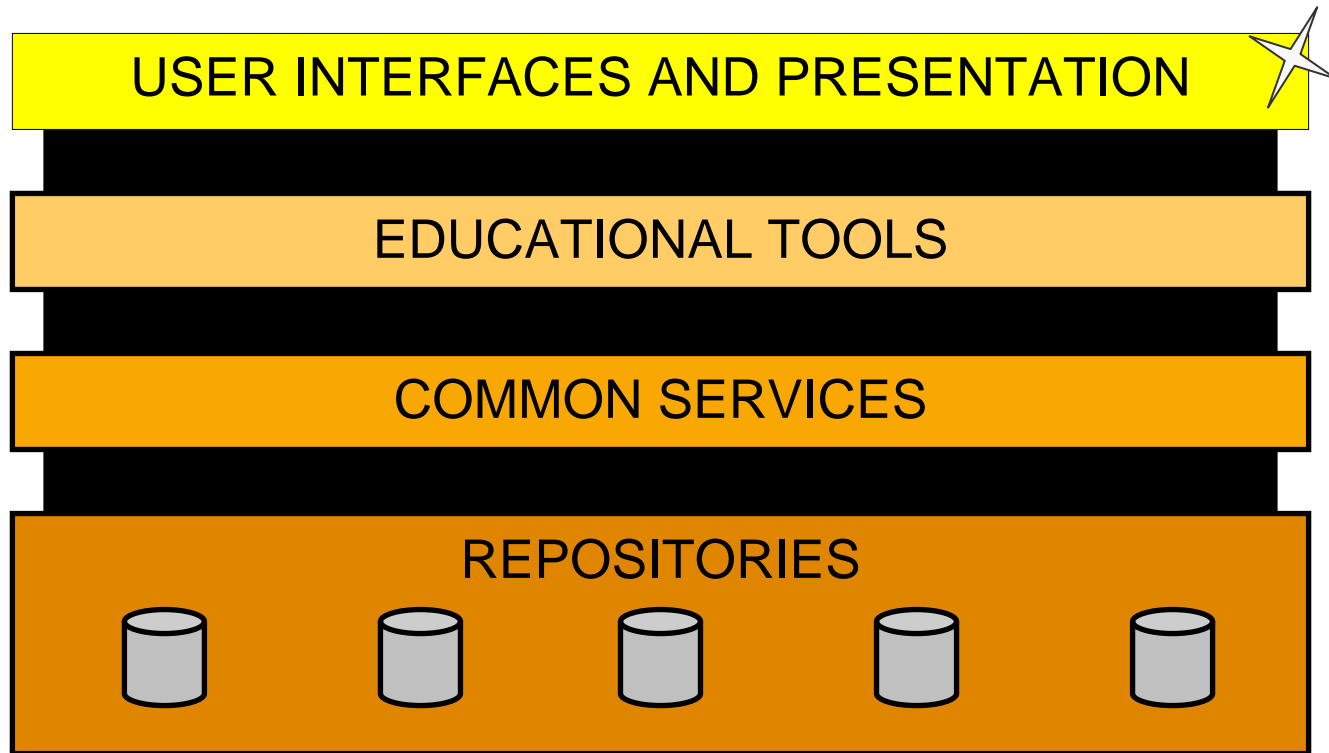
# COLIS



# Common Services

- A key emerging concept that describes a core layer to integrated learning architectures
- 'Service Definitions' currently under development
- Major focus is on:
  - access management
  - identity management
  - search services
  - metadata services
  - digital rights management

# Common Services



Source: Neil McLean, E-Learning Roundtable 2003

[www.gu.edu.au/conference/elearning2003/](http://www.gu.edu.au/conference/elearning2003/)



# More info ...

- **EdNA (Education Network Australia)**  
[www.edna.edu.au](http://www.edna.edu.au)
- **AICTEC (Australian ICT in Education Committee)**  
[www.aictec.edu.au](http://www.aictec.edu.au)
- **The Learning Federation**  
[www.thelearningfederation.edu.au](http://www.thelearningfederation.edu.au)
- **MCEETYA ICT Taskforce**  
[icctaskforce.edna.edu.au](http://icctaskforce.edna.edu.au)
- **COLIS**  
[www.colis.mq.edu.au](http://www.colis.mq.edu.au)
- **Flexible Learning Australia (ANTA)**  
[flexiblelearning.net.au](http://flexiblelearning.net.au)
- **Macquarie e-Learning Centre of Excellence**  
[www.melcoe.mq.edu.au](http://www.melcoe.mq.edu.au)



## Standards Sub-Committee

<http://standards.edna.edu.au>



# Standards Australia

Committee IT-19-1

<http://www.standards.com.au>